



November 30, 2016

Ms. Sheri Adkins, P.G.  
Superfund Branch  
Kentucky Division of Waste Management  
300 Sower Boulevard  
Frankfort, Kentucky 40601

RE: Response to the October 5, 2016 Notice of Deficiency  
Correction Action Plan, July 2016  
Former Black Leaf Chemical Site  
1391 Dixie Highway Louisville, Jefferson County KY  
AI#52202; CERCLIS ID #KYD980559520

Dear Ms. Adkins:

On behalf of our client, Louisville Industrial Park (LIP), Smith Management Group (SMG) has prepared this response to your comments provided in the Notice of Deficiency (NOD) dated October 5, 2016. Included with this response is the revised Corrective Action Plan (CAP) including the information provided in this letter. The following information includes the comments from the October 2016 NOD, followed the individual response to each comment. The State's comments have been bolded and italicized.

### **Response to Comments**

#### ***1. Kentucky's Bluegrass Regional Background guidance was not properly applied. Please refer to "Kentucky Guidance for Ambient Background Assessment".***

A mistake in the analytical tables was carried through from the previous documents prepared by another consultant. The value presented for Kentucky Ambient Background for arsenic in the analytical tables is incorrect. The tables have been corrected to state the arsenic values are compared to the 95<sup>th</sup> percentile value for Kentucky Ambient Background which is 21.2 mg/kg. Language has been added to the text to clarify that the 95<sup>th</sup> percentile was used as a screening level for the planned excavation. Sample locations where arsenic was detected above 21.2 mg/kg are proposed to be excavated.

SMG statistically compared the data set and individual samples with the Kentucky Ambient Background data set using the guidance provided in "*Kentucky Guidance for Ambient Background Assessment*" dated January 8, 2004. SMG removed all samples from the data set of locations where excavation is proposed because PAHs or pesticides have been detected above the residential RSLs.

The remaining data set was compared to the state background using the criteria set in Kentucky's guidance with the following results.

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#### **Louisville**

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Response to Comments on CAP

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1. All data is below the 95<sup>th</sup> percentile (21.2 mg/kg) of the Kentucky ambient background for arsenic.
2. While ½ of the data set should be below the 60<sup>th</sup> percentile, the remaining data set has approximately 26% of the samples below the state 60<sup>th</sup> percentile of 8.3 mg/kg.
3. While the mean concentration must be below the 95% upper confidence limit (UCL) of Kentucky ambient background data set, the current calculations show the mean concentration to be 11.16 mg/kg as compared to 9.4 mg/kg for the 95% UCL of the Kentucky ambient background.

Therefore, SMG will compare the confirmation samples to ambient background once the excavation is complete to verify that the remaining arsenic concentration is within background. During the confirmation process, the areas being excavated will be deemed complete if the confirmation samples show arsenic concentrations below the Kentucky 95% UCL (9.4 mg/kg).

**2. The proposed CAP gave a general written description the location of the contaminated material berms, but provided no site map or other scale drawing of the location of this berm in relation to property lines, adjacent properties/facilities, nor an indication of the final areal extent and vertical depths of the berm.**

Figure 9 has been revised to clarify vertical depths, widths and height of the berms. Figure 10 has been added to show the areal extent of the berms.

**3. It is unclear if the plan proposes to leave soils above Industrial RSLs onsite (in the berm) or if those soils above Industrial are intended to be properly disposed. Please clarify.**

The intent is to use the berms to consolidate and isolate all soils above the residential and industrial RSLs with a deed restriction on the berms. If more soil is excavated than can be used in the berms, the remaining soils will be sent the Waste Management, Inc. Outerloop Landfill.

**4. Pursuant to 401 KAR 100:030:**

**a. Section 8(b)3 requires that an approvable corrective action plan "shall describe to the cabinet the method for maintenance of .... institutional controls, including: c. A deed instrument containing an enforceable restrictive covenant which is transferable and binding on current and subsequent property and recorded with the county clerk for the county in which the property exists. A copy of the restrictive covenant shall be filed with the cabinet". As such, and in conjunction with KRS 224.80-120, submit a draft Environmental Covenant (EC) for the property that addresses necessary restrictions resulting from contamination remaining on the property, for review by KDEP legal staff;**

**b. Provide documentation to the Division demonstrating that Louisville Industrial Park (LIP) has legal authority to encumber the property with an EC or to guarantee that any prior existing interest will subordinate its interest to an EC;**

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***c. Provide a detailed description of maintenance of engineering and institutional controls.***

A draft covenant is attached for your review. The final areal extent of the berms will be confirmed post excavation by a licensed surveyor. The survey will then be used for a description of the area requiring restrictions. The CAP has been amended to provide a description of O&M activities in Section 9.0.

Louisville Industrial Park LLC believes it has the right to encumber the property with an EC as the legal owner of the property. It is the intent of Louisville Industrial Park to only restrict use of the bermed area.

Any questions or correspondence regarding the covenant or legal ownership should be directed to Tony Young.

***5. Storm water controls were proposed to be determined and enacted by a subcontractor. Please note that Louisville's Metro Sewer District (MSD) requires specific permits and/or licensing for such earth moving projects. KDEP has additional concerns based on historic instances of flooding and sediment load carrying onto neighboring residential areas. Copies of approved MSD permits/licenses must be submitted to KDEP prior to approval/implementation of a CAP that involves or otherwise incorporates substantial disturbance to the surface and subsurface of the site.***

The site contractor is currently applying for the MSD site disturbance permit for the excavation and demolition activities. A copy of the approved permit will be forwarded to KDEP prior to beginning earth moving activities.

If you have any questions regarding the CAP, please feel free to contact Karen Thompson at (859) 231-8936. If you have questions concerning any legal matters, please contact Tony Young directly.

Respectfully  
**SMITH MANAGEMENT GROUP**

Karen Thompson, P.G.  
Senior Geologist

Sara G. Smith  
President

Enclosure(s)

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**LOUISVILLE INDUSTRIAL PARK LLC  
FORMER BLACK LEAF CHEMICAL SITE  
1391 DIXIE HIGHWAY  
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY**

## **CORRECTIVE ACTION PLAN**

**November 2016**

**SMITH MANAGEMENT GROUP  
1405 Mercer Road  
Lexington, KY 40511  
(859) 231-8936**



**CORRECTIVE ACTION PLAN**

**LOUISVILLE INDUSTRIAL PARK LLC  
FORMER BLACK LEAF CHEMICAL SITE  
1391 DIXIE HIGHWAY  
LOUISVILLE, JEFFERSON COUNTY, KENTUCKY  
AI #52202**

**NOVEMBER 2016**

Prepared for:  
Louisville Industrial Park LLC

Prepared by:



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SMITH MANAGEMENT GROUP  
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## 1.0 INTRODUCTION

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This document has been prepared by Smith Management Group (SMG) on behalf of the Louisville Industrial Park LLC (LIP). In a letter dated August 17, 2010, the Kentucky Division of Waste Management (KDWM) Superfund Branch required a site investigation and corrective action for the former Black Leaf Chemical Site located at 1391 Dixie Highway, Louisville, Jefferson County, Kentucky, herein referred to as the Black Leaf site (**Figure 1**). The plan provides the scope and assumptions for remediation and summarizes information related to investigation activities previously undertaken. The plan describes the corrective action measures to be taken to achieve closure of the site to allow for residential development. This plan proposes the excavation of impacted soils, construction of a berm using the impacted soils, and demolition of the production buildings (buildings 17, 18, and 20). **Figure 2** identifies the buildings by number.

SMG has referenced the 2015 Site Characterization Report prepared by ARCADIS US Inc. (ARCADIS) submitted by the Potentially Responsible Parties' (PRP) group, ExxonMobil Oil Corporation (ExxonMobil), Maxus Energy Corporation (Maxus) for Occidental, Occidental Chemical Corporation (Occidental), and Greif, Inc. (Greif). The Site Characterization Report (ARCADIS, 2015) summarized previous investigations from 2010 and 2011 and presented data collected in 2014. These historical investigations have provided detailed information on the geology, climate, history, and current use of the site. Therefore, that information is not presented in detail here, but summarized in the following sections.

### 1.1 BACKGROUND

According to the 2015 Site Characterization Report (ARCADIS, 2015), the former Black Leaf Site is located on a 29-acre parcel, which was owned by Louisville Industrial Park in 1999 and operated as a lumber warehouse and distribution facility until approximately 2006 after which it has been vacant. Former activities at the site included pesticide formulation and operations by cooperage and distillery and lumber interests. According to the Site Characterization Report, historical Sanborn mapping indicated a former coal yard on the western portion and foundry on the eastern portion of the site.

### 1.2 ENVIRONMENTAL SETTING

The current site address used to describe this site is 1391 Dixie Highway. It is bound by commercial property located on South 15<sup>th</sup> Street to the east, an alley behind residential property and residential property on St. Louis Avenue to the north, Dixie Highway and residential property to the west, and railroad tracks to the south (**Figure 1**). The area is mixed industrial and residential properties.

According to United States Department of Agriculture (USDA) Soil Survey for Jefferson County and Louisville West, Kentucky Topographic Quadrangle, the western, central and eastern end of the property line are on Urban land with an elevation of 380-800 feet. The east central portion of the site along with a small portion of the site near the south end of the property line adjacent to the railroad is on Udorthents and similar soils with 0% to 12% slopes and is at an elevation of 380-600 feet. The shallow groundwater was observed to be at approximately 33 feet below ground surface during the 2014 site investigation. The former production well gauged during the investigation is shown on **Figure 3**. The well has since been abandoned.

The 2015 Site Investigation Report reported the site is in the Outer Bluegrass Physiographic Region of Kentucky which is characterized by deep valleys and little flat land which is mostly composed of interbedded Ordovician limestone and shale. Geologic deposits at the site are identified as Wisconsin Glacial Outwash material consisting of intermixed and interbedded sand, gravel, silt and clay which are common to the Ohio River Valley.

As stated in the 2015 Site Characterization Report (ARCADIS, 2015), stormwater flow from site is discharged into the City's sewer system, which goes into a combined sewer and then to Morris Forman Treatment plant which discharges to the Ohio River. **Figure 3** provides the on-site drainage structures identified during the investigation.

### 1.3 SUMMARY OF SITE INVESTIGATIONS

#### 1.3.1 OCTOBER 2010

Soil samples collected by Oneida Total Integrated Services on behalf of United States Environmental Protection Agency (USEPA) in October 2010, were analyzed for total metals, organochlorine pesticides, volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), Polycyclic aromatic hydrocarbons (PAHs), Cyanide and Polychlorinated Biphenyls (PCBs). Samples were collected from 0-1 foot and 8-12 feet at each boring location. **Table 2** provides a summary of the analytical results and **Figure 4** provides the location of the borings.

**Arsenic** was detected in surface soil samples at concentrations greater than Kentucky Background of 21.2 mg/kg with the maximum being 56 mg/kg. However, it was below the background value in subsurface soil samples. Twenty-five of 29 surface soil samples containing **PAHs** exceeded Residential RSLs. Two subsurface soil samples exceeded Residential RSLs. Fourteen of 29 surface samples exceeded Residential RSLs for one or more **organochloride pesticide** compounds. One subsurface sample exceeded Residential RSLs for PAHs.

#### 1.3.2 SEPTEMBER AND OCTOBER 2011

Surface soil samples collected by Oneida Total Integrated Services on behalf of USEPA were analyzed for **arsenic, lead** and **organochloride pesticides**. During this sampling event, in addition to surface soil samples, one sediment sample was collected from a concrete-lined drainage ditch located on the northwest portion of the site. There were no subsurface soil samples collected during this event.

**Arsenic** was detected at concentrations greater than background of 21.2 mg/kg with the maximum being 54.3 mg/kg in soil sample. Samples contained higher **lead** concentrations in 3 locations exceeding the Residential RSL value of 400 mg/kg with the maximum being 768 mg/kg. **Organochloride pesticides** were not detected at concentrations greater than Residential RSLs.

#### 1.3.3 DECEMBER 2011

Soil samples were collected by KDEP on the western portion of the site and were analyzed for RCRA metals, organochloride pesticides, SVOCs and PAHs.

**Arsenic** concentrations were below the Kentucky Background of 21.2 mg/kg and **lead** concentrations were below 400 mg/kg. **Organochlorine pesticides** were present at a concentration greater than Residential RSL in one of the duplicate sample although the parent sample had no pesticide concentrations detected above the screening level. Nine surface

samples and 5 of the 9 subsurface samples contained **PAHs** at concentrations greater than Residential RSLs.

#### **1.3.4 SEPTEMBER 2014**

The most recent site characterization was performed in September 2014 by ARCADIS U.S., Inc. during which soil, groundwater and sediment samples were collected to evaluate and define the presence of constituents of concern (COC) which are PAHs, Arsenic, Lead and Organochlorine pesticides at the site. Sixty-one (61) soil borings were advanced across the site and a total of 224 soil samples were collected by ARCADIS, which were analyzed by Test America.

A brief explanation of site characterization including the results is discussed in **Section 2.0** of this document.

## 2.0 DELINEATION OF IMPACTED MEDIA

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### 2.1 BUILDINGS

There are three buildings (17, 18, and 20) associated with prior pesticide production and several buildings and barns associated with various other former activities at the site. **Figure 2** shows existing buildings on-site. The site currently has no active operations. According to the 2015 Site Characterization Report (ARCADIS, 2015), several of the building roofs have collapsed. A structural evaluation was performed by ARCADIS on Buildings 16-20 on September 15, 2014, to evaluate the condition of the structures and to determine the safety conditions necessary to perform characterization activities.

According to the structural evaluation, access should be restricted to buildings 17 and 19. Consequently, the planned soil boring locations were relocated outside the structures and the soil borings within buildings 16, 18 and 20 were adjusted to avoid hazards identified within the buildings.

The building materials at building 17, 18, and 20 have not been assessed for contamination from the pesticide production.

### 2.2 DRAINAGE SYSTEM/ UTILITIES

According to the 2015 Site Investigation, many of the former storm drains onsite have been abandoned and either filled with concrete or soil, gravel, sediment and vegetation and are no longer functional. There are 14 catch basins/manholes which are still capable of transmitting stormwater flow. Based on the 2015 Site Investigation, many of the remaining catch basins do not have surface grates/covers which has allowed debris/sediment deposition. Video inspection was limited as variety of debris prevented advancement of cameras. **Figure 3** shows the current site drainage features. Of the 14 sediment samples collected during the site investigation in 2014, two of the samples exceeded the 95<sup>th</sup> percentile for Kentucky ambient background of 21.2 mg/kg for **arsenic** with concentrations of 42.8 mg/kg and 59.9 mg/kg and one sample exceeded Residential RSL (400 mg/kg) for **lead** with a concentration of 552 mg/kg. One sediment sample exceeded Residential RSL (0.033 mg/kg) for a single pesticide compound, **dieldrin** with a concentration of 0.0343 mg/kg. Twelve of the 14 samples exceeded **PAHs** compounds Residential RSLs. **Table 1** shows the Historical Sediment Analytical Results 2014.

### 2.3 GROUNDWATER

There were no exceedances of Maximum Contaminant Level (MCLs) for **arsenic**, **lead**, **organochloride pesticides** and **PAHs** in the sample collected from the former production well before abandonment. No further groundwater investigation was recommended at the site, since the vertical delineation was achieved across the site for COCs in soil at elevation above the estimated water table depth greater than 30 feet below ground surface.

### 2.4 SOIL ANALYSIS

**Figure 4** provides the location and year for soils samples collected during the multi-year investigation. The 2014 sample locations focus on delineation of the site. During the 2014 sampling, soil samples were collected from 0-1 foot, 1-2 feet and 2-foot intervals to

termination depths. Initially soil samples from 0-1 foot and 1-2 feet were analyzed and deeper samples were analyzed only if the shallow samples exceeded Residential RSLs. However, at locations adjacent to buildings 16-20 on the east side of the property, the terminal sample intervals were analyzed regardless of the shallower results as requested by KDWM. **Tables 2 and 3** provide summary tables from those historic reports.

**Arsenic** has exceeded the 95<sup>th</sup> percentile Kentucky ambient background value of 21.2 mg/kg in 22 of the 61 soil boring locations with the highest being at 337 mg/kg. **Lead** has exceeded the Residential RSL value of 400 mg/kg in 4 of the 61 locations. The top two feet of the soil contained arsenic and lead above site specific screening levels (SSSLs) which is not the case at depths greater than 6 feet below ground surface. Seventeen of the 61 soil boring locations exceeded Residential RSL of **Organochloride Pesticide** which were primarily located in the top two feet. Fifty of the 61 locations exceeded **PAH** compounds Residential RSL.

In most cases, soils exceeding residential standards were in top two feet and limited exceedances resulted at deeper depths (**Figure 5**).

### 3.0 ADDITIONAL CHARACTERIZATION

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Based on the historical information and discussions with the KDWM Superfund Branch, additional characterization is required to fully delineate impacts to soils beneath buildings and impacts to building material in buildings 17, 18, and 20. Further, the Superfund Branch has indicated that possible asbestos in some of the buildings is considered uncontrolled and should be characterized and removed if necessary.

A combination of an on-site portable laboratory and fixed laboratory will be used during the additional characterization. The laboratory services will be provided by PACE Laboratories and the on-site laboratory will produce NLAP certified results. Test America Laboratory will be used for wipe and bulk material samples from the buildings.

#### 3.1 SOIL DELINEATION

Based on the evaluation of the 2015 Site Investigation Report (ARCADIS, 2015), additional soil samples will need to be collected and analyzed to determine the extent to which excavation will be required. The additional sampling will be in areas that have little or no data. Any subgrade building structures (basements, crawl spaces, pipe tunnels, furnaces, tracks, etc.) will be required to have soils sampled at least four feet below the floor of the structure. Buildings where sub floor samples were not taken during the site investigation will be sampled during the corrective action. Soil samples will be collected by drilling through the existing concrete slab if the building will remain until residential development.

Soil samples will be collected using similar methodology employed during the Site Investigation by ARCADIS. At each boring, samples will be collected on two foot intervals with the exception of the top two feet, which will be collected from 0-1 and 0-2 feet. Based on previous sampling, it is assumed soils will not require sampling below 16 feet.

For areas beneath the building footprints that require additional soil borings because little data exists, the vertical delineation will be determined using the same protocol as the 2014 site investigation. Soils will be collected at 0-1 foot, 1-2 feet and then at each consecutive 2-foot interval. Vertical extent will be considered defined when soil results show 2 consecutive intervals with soils below the Residential RSLs. Samples will be analyzed for PAHs, pesticides, lead and arsenic.

In areas where further refinement is required for determining the extent of excavation, additional samples may be collected to verify vertical or horizontal extents. These locations will be sampled to a depth similar to surrounding impacted depths (e.g. sample 0-1 and 0-2 feet in areas where impacts vary from 0-1 and 0-2 feet).

**Figure 6** shows the proposed locations for additional sampling. The proposed depths and parameters for sampling are provided in the legend.

#### 3.2 CHARACTERIZATION OF PRODUCTION BUILDINGS

Surface wipe samples of the buildings 17, 18 and 20 will be taken for arsenic and the organochlorine pesticides detected in the soils. No other constituents or buildings will be addressed through wipe sampling of interior building surfaces. The pesticides selected for wipe

sample analysis include the six (6) organochlorine pesticides identified in the Site Characterization Report. Those compounds are 4,4'-DDD, 4-4'-DDE, 4-4'-DDT, Beta-BHC, Dieldrin and Toxaphene.

The EPA does not have specific guidance on the number of wipe samples or surface sampling methods and as such there is a wide variety of available sampling methods. The Surface Wipe Sampling Procedure provided by the Safety and Health Services Division, Industrial Hygiene Group of the Brookhaven National Laboratory will be used for sampling protocol. The number of samples collected will be based on overall square footage of the buildings, the amount of debris on surfaces and accessibility within buildings 17, 18 and 20.

A total of approximately 35 wipe samples are projected to be collected and analyzed for arsenic and for the 6 pesticides for the 3 buildings. Sample locations will include walls and floors and possible metal or other surfaces determined at the discretion of on-site industrial hygienists. In addition, approximately 12 bulk material samples will be collected from porous concrete and wood flooring to be analyzed through solids extraction for determination of potential arsenic and pesticides. Approximately 2 wood and 2 concrete samples will be collected from each of the 3 buildings. However, bulk material sampling numbers may vary based on the actual ratio of concrete, wood or another flooring present.

Test America laboratories in Nashville, Tennessee and Canton, Ohio will provide the analytical services regarding the wipe and bulk material samples to be analyzed for pesticides and arsenic. Test America is a participant in the USEPA Contract Laboratory Program including the EPA's Environmental Response Laboratory Network (ERLN). Test America has also been audited and approved under the new Department of Defense Environmental Laboratory Approval Program (ELAP).

The results will be reviewed by an industrial hygienist to determine if the site health and safety plan will require updating. The results will also be taken into consideration in determining how the building material will be disposed.

### **3.3 ASBESTOS SURVEY**

An asbestos survey is being conducted to facilitate the planned demolition of structures at the site. The survey will identify asbestos-containing materials for abatement as required for demolition and renovation projects subject to the EPA's National Emission Standards for Hazardous Air Pollutants (NESHAP). The NESHAP requirements are regulated in Jefferson County, Kentucky through the local Jefferson County Air Pollution Control District (JCAPCD).

EPA-approved and Kentucky licensed Building Inspectors will conduct a pre-demolition asbestos inspection of 20 buildings and remaining structures located at the site. The Building 15 will not be included in the pre-demolition inspection as it will remain intact at the site for future use. The sampling and assessment will be conducted as a demolition survey and include all safely accessible areas of the designated buildings, some of which are in poor condition with structural damage including limited fire damage. In order to obtain a demolition permit, the building owner and demolition contractor, in conjunction with the building inspector must "ensure that all areas, components, and activities have been identified and surveyed." If a condemned or unsafe building cannot be accessed enough to confirm the presence of any asbestos-containing materials (friable and non-friable), then the building materials may have to be disposed of as asbestos-containing or contaminated debris, in the JCAPCD's discretion. Those buildings not

assessed, may be sampled after demolition to determine applicable disposal requirements. As such, each building will be inspected as thoroughly as possible and as safety allows, to identify and sample any suspect asbestos-containing materials. Locations that cannot be accessed will be noted in the report as to their potential for harboring suspected asbestos-containing materials.

Sampling and analysis will be performed in accordance with current EPA and OSHA protocols including OSHA's General Industry standard (29 CFR 1910.1001). Sample analysis will be provided by a laboratory accredited by the American Industrial Hygiene Association (AIHA) and/or the National Voluntary Laboratory Accreditation Program (NVLAP).

The survey report will provide the location and approximate quantities of building materials found to contain asbestos within each of the buildings inspected. Locations determined to be inaccessible on the date of the assessment will be noted. Based on the analyses, permits will be obtained from JCAPCD before beginning demolition.

## 4.0 CORRECTIVE ACTION

LIP has developed the following corrective action strategy to achieve closure under Kentucky Revised Statute (KRS) 224.1-400(18) with a combination of restoration and management to achieve residential exposure levels. LIP plans to excavate soils with constituents above the Residential RSLs. Portions of the excavated material will be used to create a berm between the existing rail and the future development as well as along the eastern boundary of the property. Buildings 17, 18, 20, the former office building and underground utilities will be removed. The future development is proposed to be a mix of multi-family units and single family homes with green space and a community center.

### 4.1 EXCAVATION OF IMPACTED SOIL

The following tables summarize the COCs in soils based on the review of historical soil data.

**TABLE 4: COCs in Soil**

<i>Compound</i>	<i>Residential RSL* (mg/kg)</i>	<i>Highest Value (mg/kg)</i>	<i>Location and Depth</i>	<i>Date</i>
Benzo(a)anthracene	0.15	16.4	SB-148R (1-2)	9/30/14
Benzo(a)pyrene	0.015	14.8	SB-148R (1-2)	9/30/14
Benzo(b)fluoranthene	0.15	19.3	SB-148R (1-2)	9/30/14
Benzo(k)fluoranthene	1.5	9.2	BLC-SB-07 (0-1)	10/25/10
Chrysene	15	15.4	SB-148R (1-2)	9/30/14
Dibenzo(a,h)anthracene	0.015	1.87	SB-125 (0-1)	9/19/14
Indeno(1,2,3-cd)pyrene	0.15	5.91	SB-125 (0-1)	9/9/14
Arsenic+	21.2	178	SB-149 (1-2)	9/16/14
Lead	400	45,000	SB-151 (2-3)	9/16/14
4,4'-DDD	2.2	177	SB-126R (0-1)	9/29/14
4,4'-DDE	1.6	34.1	SB-126R (0-1)	9/29/14
4,4'-DDT	1.9	2,740	SB-123 (0-1)	9/18/14
Aldrin	0.031	0.0847	SB-123 (0-1)	9/18/14
Alpha-BHC	0.085	1400	BLC-SB-01 (0-1)	10/25/10
Beta-BHC	0.3	71	SB-123 (0-1)	9/18/14
Dieldrin	0.033	73.5	SB-123 (0-1)	9/18/14
Gamma-BHC	0.56	180	BLC-SB-01 (0-1)	10/25/10
Heptachlor epoxide	0.059	0.244	SB-123 (0-1)	9/18/14
Toxaphene	0.48	4.81	SB-113 (0-1)	9/19/14

\*May 2016 Residential RSLs

+Arsenic value provided is the 95<sup>th</sup> percentile of Kentucky background.

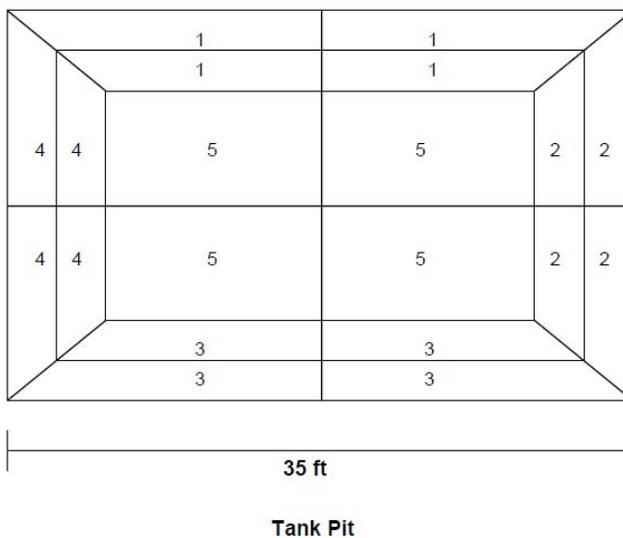
Much of the contamination delineated in the 2015 Site Investigation was shown to be in the top two feet of the soil, with the exception of SB-A1, SB-A2, SB-A3, SB-A4, SB-A5, SB-A6, SB-A7, SB-8, SB-110, SB-119, SB-123, SB-124, BLC-SB-15, SB-145, BLC-SB-23, SB-152R, SB-151R and SB-151. **Figure 5** provides locations and depths of COCs above residential RSLs.

Based on the current data, the shaded areas will have the top 1 to 2 feet removed (**Figure 7**). The shaded area may shift based on the additional sampling proposed in **Section 3.0**, but will encompass impacted areas with COCs above the residential RSLs within the top 2 feet.

The locations where COCs are above the Residential RSLs below 2 feet will be excavated separately. At each of these locations an initial pit of 10-feet by 10-feet will be excavated down to the deepest known exceedance of the COC in that boring. After the initial soil is removed, samples will be collected using the following protocol. Four wall samples (each cardinal direction) and a floor sample will be taken to confirm the COCs are below Residential RSLs. If a sample result indicates the COCs remain above the RSL value, the pit will be expanded by 5 feet in that direction. If the floor samples indicate the COCs remain above the RSL, the floor will be excavated an additional foot. If any pit wall or floor exceeds 25 feet during excavation one additional sample will be collected every 25 feet of linear length. Each sample will be collected using the protocol outlined in the USTB Closure Outline 2011 document. Each 25-foot section of wall or floor will be divided into a quadrant. Each quadrant for the wall or floor will be composited into one sample for analysis. Samples will be analyzed for COCs detected during the Site Investigation for each of the boring locations. Samples may be collected using a backhoe for safety.

**Figure A**

**Soil Sample Locations - Tank or Piping Removed from Ground**



**Drawing taken from USTB Closure Outline (2011)**

## 4.2 DEMOLITION OF BUILDINGS

The three production buildings (17, 18, and 20) will be removed during the remediation phase along with the former office building. Demolition will begin after the asbestos removal is

complete. Demolition material will be segregated for either recycling or disposal at a permitted landfill. Final disposition of the material will be determined based on the results of the indoor wipe samples. Material containing COCs above the residential RSLs will not be recycled. Concrete from the buildings may be used in the on-site berm. Once the structure is down, pads will be removed if required, to excavate soils determined to be impacted.

If other structures must be removed to excavate beneath the current building footprint, the demolition material will be segregated for recycling if possible, and the pad will be removed, crushed. Clean concrete and masonry will be crushed for beneficial reuse onsite as coarse stone fill or subbase. Contaminated concrete will be broken into large but manageable pieces and not crushed or sawed to eliminate excess dust. This concrete will be used in the berm construction or sent off-site to a permitted landfill. Demolition debris will be segregated and temporarily stored east of building 18. The exact location will be staked after sampling in the area further delineates the areas not requiring excavation.

#### **4.3 REMOVAL OF UTILITIES**

During the demolition phase the utilities (storm water lines and utility tunnel) will be removed. Samples will be collected using the same protocol as **Section 4.1**.

#### **4.4 CONSTRUCTION OF BERM**

A berm is proposed to be constructed along the south property boundary adjacent to the rail line and yard. The purpose of the berm is to mitigate noise pollution from the rail yard for the proposed residential development on site. A second berm is proposed along the eastern property boundary. **Figure 9** shows the dimensions of cross-section of each berm and **Figure 10** shows the location and total lengths. The berm will be constructed from soil and concrete removed during demolition and excavation.

Soil removed from the “berm area” to construct the berm will be tested and segregated. Any soil not meeting the residential RSLs or background for arsenic, will be added to the soil and concrete being placed in the berm. Soils that are shown to be below residential RSLs and background, will be used on-site during grading. Clean clay and topsoil will be used to cap the berm.

## 5.0 CONFIRMATION SAMPLING AND FINAL GRADING

---

Confirmation sampling of the larger excavation areas will be conducted once excavation in the area is complete and before final seeding and grading. After excavation, the site will be divided into a grid (**Figure 8**). Each section of the grid is approximately 250 by 300 feet. Five samples will be collected and composited for each section. Samples will be collected in the top 1 foot of the remaining soil column. Samples will be analyzed for all COCs including pesticides, PAHs, lead and arsenic. If analytical results show any COCs above Residential RSLs, additional excavation and sampling will be conducted within that section. Since additional soil samples under the building slabs are proposed, no additional confirmation samples will be taken within the building footprint unless it has been excavated. Confirmation sampling at the deeper excavations (below 2 feet) will have been completed during the excavation phase. The pits will be filled in and graded with clean on-site soils.

Once the site has been sampled and the results indicate COCs are below residential RSLs, the site will be graded in a manner to allow drainage of the site. The site will be seeded to reduce unwanted runoff in compliance with Louisville Metro and MSD Ordinances. The berm will be seeded at the same time.

## 6.0 HEALTH AND SAFETY

---

The site construction, excavation and demolition will be under the management of Phillips Brothers Construction, the general contractor for the site. Phillips Brothers will maintain a health and safety plan for those activities, including training certificates for those required to have 24 or 40-hour HAZWOPER training to perform work at the site.

Sampling will be performed by SMG. The sampling team will operate under the SMG Health & Safety Plan. SMG will coordinate with Phillips Brothers for the proper safety equipment in construction zones. The SMG team has current HAZWOPER training for work at the site.

## 7.0 SCHEDULE

---

On-site activities will be coordinated through Phillips Brothers and SMG. The general schedule for site activities is provided in this section. If required, the schedule will be amended based on weather or other site conditions. Phillips Brothers will be the general construction contractor on-site and will be responsible for site preparation, earth moving, and demolition at the site. SMG will be responsible for the asbestos, wipe and soil sampling, coordination with the laboratory, and final reporting. Workers on-site will have OSHA HAZWOPER training.

### 7.1 SITE PREPARATION AND BUILDING SAMPLING

Phillips Brothers will be responsible for site preparation work. Utilities will be marked by contacting BUD and contacting any utilities registered within Jefferson County. The Site Disturbance Permit from MSD will be implemented and maintained by Phillips Brothers. A copy of the approved permit will be provided to KDEP once received. A 10-Day Notice of Intent will be forwarded to KPDES before implementation. Site preparation will include clear-cutting trees and brush, leaving root balls in place. Trees will be chipped and the chips will be temporarily stored inside building 15.

During site preparation, SMG will conduct a pre-demolition asbestos survey of all buildings and conduct wipe testing at the three production buildings (17, 18, and 20). Asbestos identified in buildings 17, 18, and 20 will be removed as required by the JCAPCD using a licensed contractor. The licensed contractor will also remove any asbestos deemed "released" (not in good condition) in the remaining buildings as part of the remediation.

The results of environmental samples taken of the building material from buildings 17, 18 and 20 will be used to determine how the building material will be handled (e.g., disposal at a landfill or recycled for beneficial reuse).

### 7.2 DEMOLITION AND ADDITIONAL SOIL SAMPLING

Phillips Brothers will be responsible for the demolition of the buildings onsite. An exterior perimeter will be established surrounding the building to be demolished and segregation area with safety fence. Walls and overhead portions of structures 17, 18, 20, and the former house/ office will be removed and piled nearby for immediate separation into steel for salvage, wood to be exported, crushable concrete and masonry. Masonry and concrete will later be crushed for beneficial reuse as aggregate backfill or stone and the wood will be disposed of at Waste Management Landfill unless the wipe samples indicate the wood has not been contaminated with COCs. The top of the underground tunnel connecting buildings 17 and 18 will be removed at the time buildings 17 and 18 are removed.

After the removal of structures 17, 18, 20, the tunnel and office; additional borings will be drilled through the slabs and samples will be taken to determine the extent of impacts beneath the buildings.

After testing is completed, the remaining slabs and foundations for buildings demolished under this plan will be completely removed. Steel will be salvaged, concrete and masonry crushed for beneficial re-use and wood taken to Waste Management Landfill in Louisville Ky.

### **7.3 EXCAVATION**

As the demolition and exploratory testing is completed, mobilization of earthmoving equipment will begin to prepare for removing contaminated soil and relocation into a berm along the south property line adjacent to the existing rail spur.

The sampled locations will be located by using coordinates from the project CADD or identifying stakes. The initial 1-2 feet of soil in the areas identified as impacted will be stripped. Deeper pits will be excavated at isolated areas in approximate 10 by 10-foot square areas around the contaminated sample locations. The soil will be loaded in trucks and hauled to the onsite berm used for contaminated soil. The excavated pits will be sampled as described in the plan and, if proven clean by the onsite lab, backfilled with certified clean material.

The storm sewer basins and lines will be excavated in their entirety and removed at the end of the closure project and the material placed in the berm as well.

### **7.4 POST-EXCAVATION SAMPLING AND BERM CAPPING AND SITE RESTORATION**

After excavation SMG will grid, sample and perform confirmation tests. Once confirmation sampling is complete, the berm will be capped, the site regraded to properly drain, and seeded.

## 8.0 REPORTING

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A final corrective action report will be submitted to the KDWM Superfund Branch providing all documentation of remediation and data indicating the remaining soils meet unrestricted residential standards. Confirmation sample results will be compared to EPA RSLs for each COC except arsenic which will be compared to background.

A final as-built drawing and survey will be provided for the capped berm. In addition, a final environmental covenant with a site management plan will be submitted for approval by the Energy and Environmental Cabinet. The covenant will restrict the use of the berm area. The plan will detail maintenance and inspections, and restricted use.

## 9.0 OPERATION AND MAINTENANCE OF ENGINEERING AND INSTITUTIONAL CONTROLS

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The final site conditions will be unrestricted residential use, with the exception of the berms being placed on the south and east perimeters of the site. The berms will contain excavated soils and concrete that are above residential RSLs and background for arsenic. Impacted soils will be capped with 12 inches of clean clay and 4 inches of clean topsoil. This barrier will prevent exposure to the COCs (arsenic, lead, pesticides, and PAHs) in the soil.

The berms will be surveyed and a description of the area will be placed in the final covenant to indicate restricted property. A draft covenant is provided in **Appendix A**. The berms will be restricted from residential use and will require the maintenance of the cap.

The final Operation and Maintenance Plan (O&M Plan) will include the following activities to be performed by the owner or his representatives:

- The visual inspection of the cap once a year to evaluate the integrity of the cap. The inspection will verify the slope, verify vegetative cover is intact, check for animal holes in the cap, and verify the overall condition of the berm is good.
- During the annual inspections, any issues will be noted and corrected within thirty (30) days.
- Submittal of Annual Certification to the KDEP showing the engineering controls are in place and in good condition and a detail of any maintenance that has been done in the last year.
- As part of maintaining vegetative cover, grass will be mowed on an as-needed basis.
- Signs will be placed along the berm to inform the public that no trespassing is allowed.

If, in the future, the property owner decides to use the berm for non-residential use such as a solar panel array, the KDEP will be notified and the O&M Plan will be amended and submitted for approval prior to any work.

## 10.0 REFERENCES

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ARCADIS U.S., Inc., Revised May 2015. Site Characterization Report: Former Black Leaf Site, Louisville, Jefferson County, Kentucky.

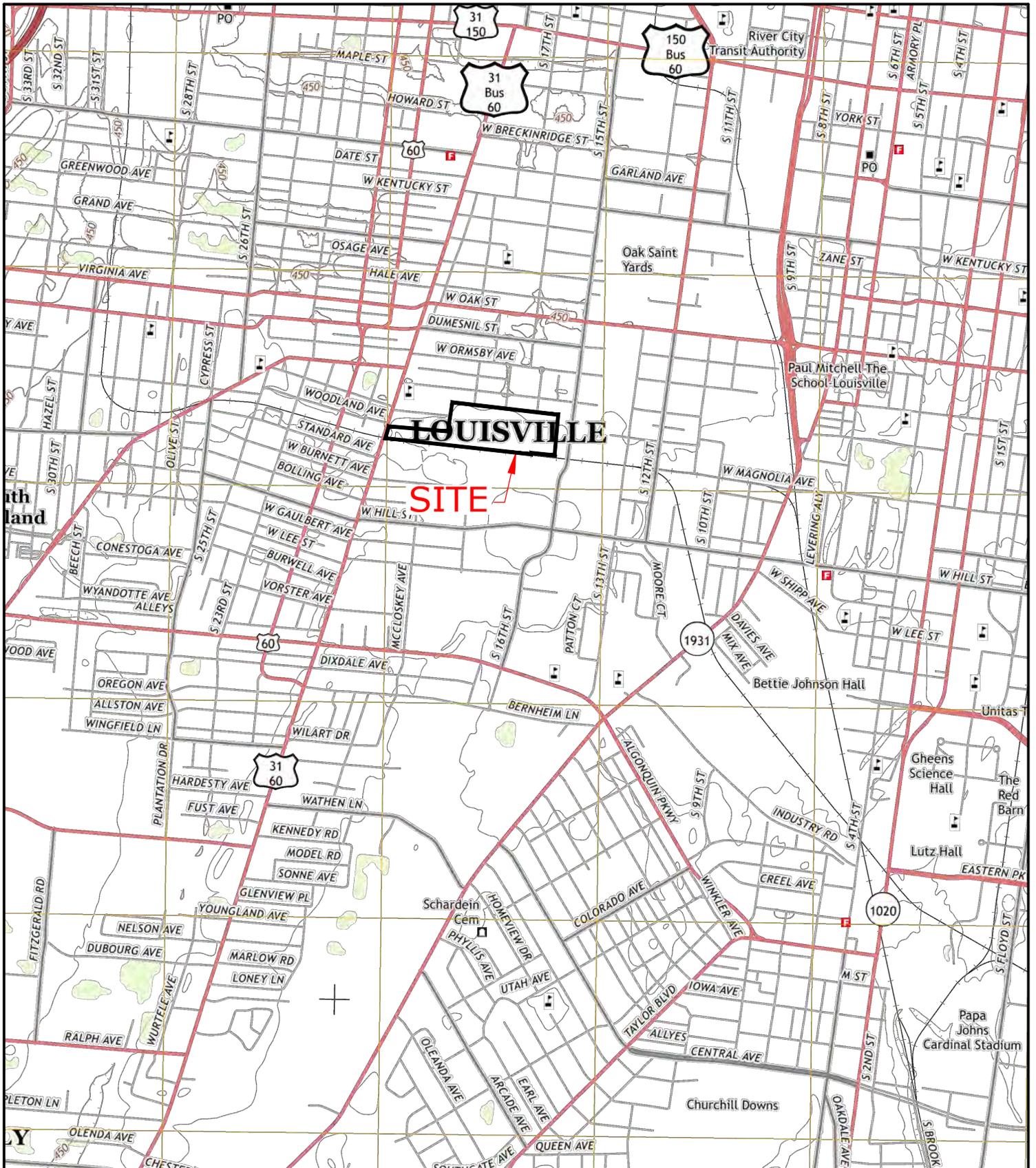
KDEP DWM, 2011. Site Inspection Report, Former Black Chemical, 1391 Dixie Highway, Louisville (Jefferson County), EPA ID# KYD980559520, Revision 1, September 2011.

Kentucky Guidance for Ambient Background Assessment, January 8, 2004. Kentucky Natural Resources and Environmental Protection Cabinet.

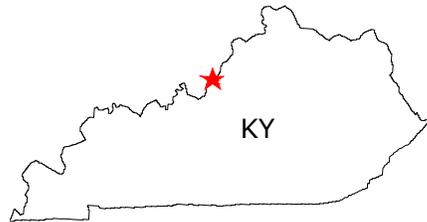
USDA Natural Resources Conservation Service, Soil Survey Jefferson County, Louisville West. (<http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>)

USEPA Regional Screening Levels (RSLs) – Generic Tables (May 2016) (<https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables-may-2016>)

## FIGURES



1405 Mercer Road  
Lexington, KY 40511  
1860 B Williamson Court  
Louisville, KY 40223  
www.smithmanage.com



QUADRANGLE INFORMATION  
LOUISVILLE WEST, KY - 2013

SITE VICINITY MAP

LOUISVILLE INDUSTRIAL PARK  
1391 DIXIE HIGHWAY  
LOUISVILLE, KENTUCKY

SCALE: 1"=2000'  
DATE: 7/27/16  
PREPARED BY: KAF  
CHECKED BY: KET

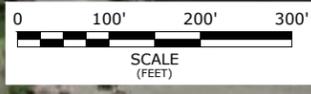
JOB NO.  
2016-6034

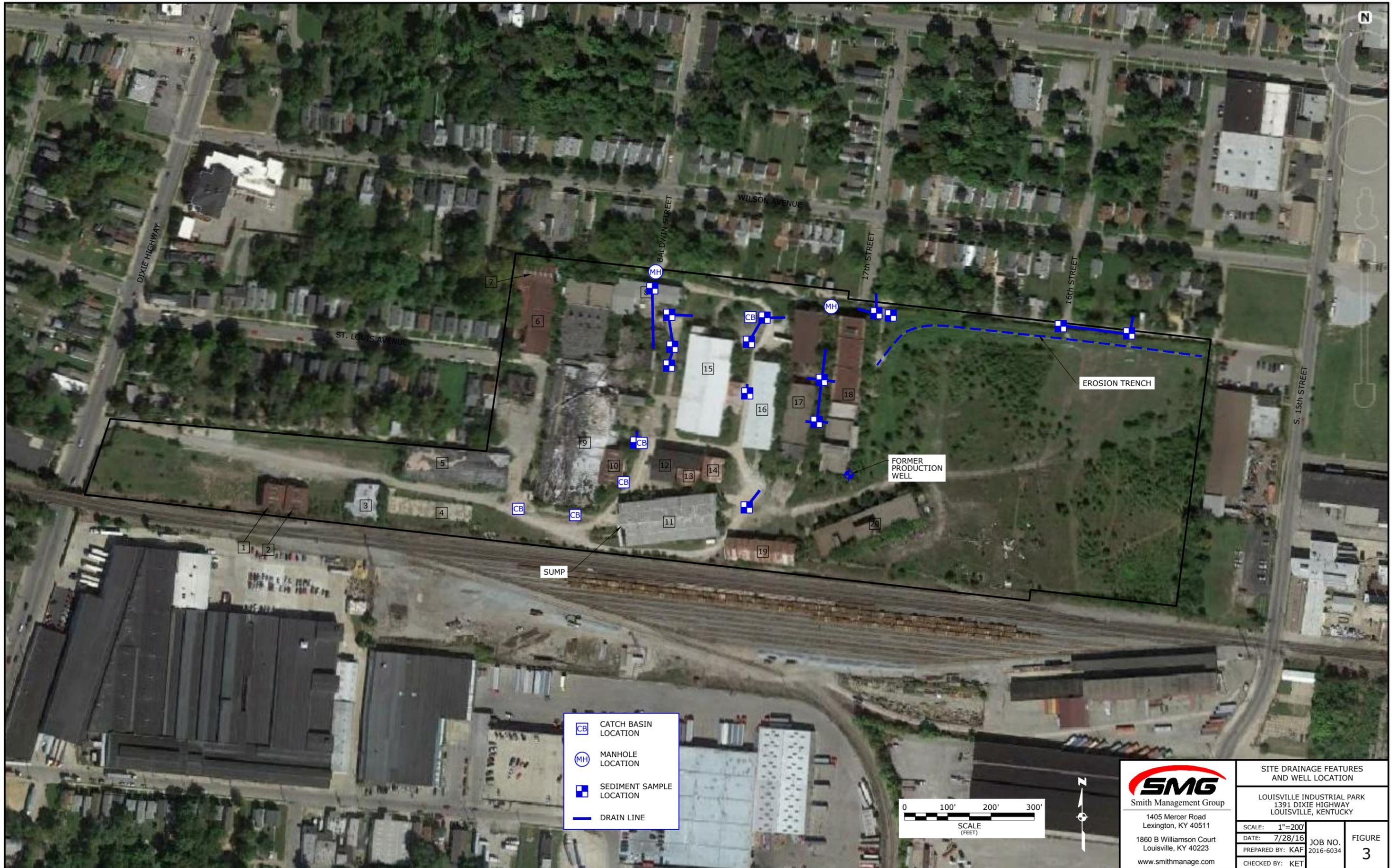
FIGURE  
1



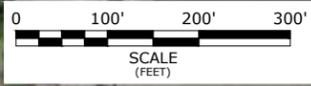
  
**Smith Management Group**  
 1405 Mercer Road  
 Lexington, KY 40511  
 1860 B Williamson Court  
 Louisville, KY 40223  
[www.smithmanage.com](http://www.smithmanage.com)

<b>SITE LAYOUT</b>		
LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY		
SCALE:	1"=200'	<b>JOB NO.</b> 2016-6034  <b>FIGURE</b> 2
DATE:	7/27/16	
PREPARED BY:	KAF	
CHECKED BY:	KET	





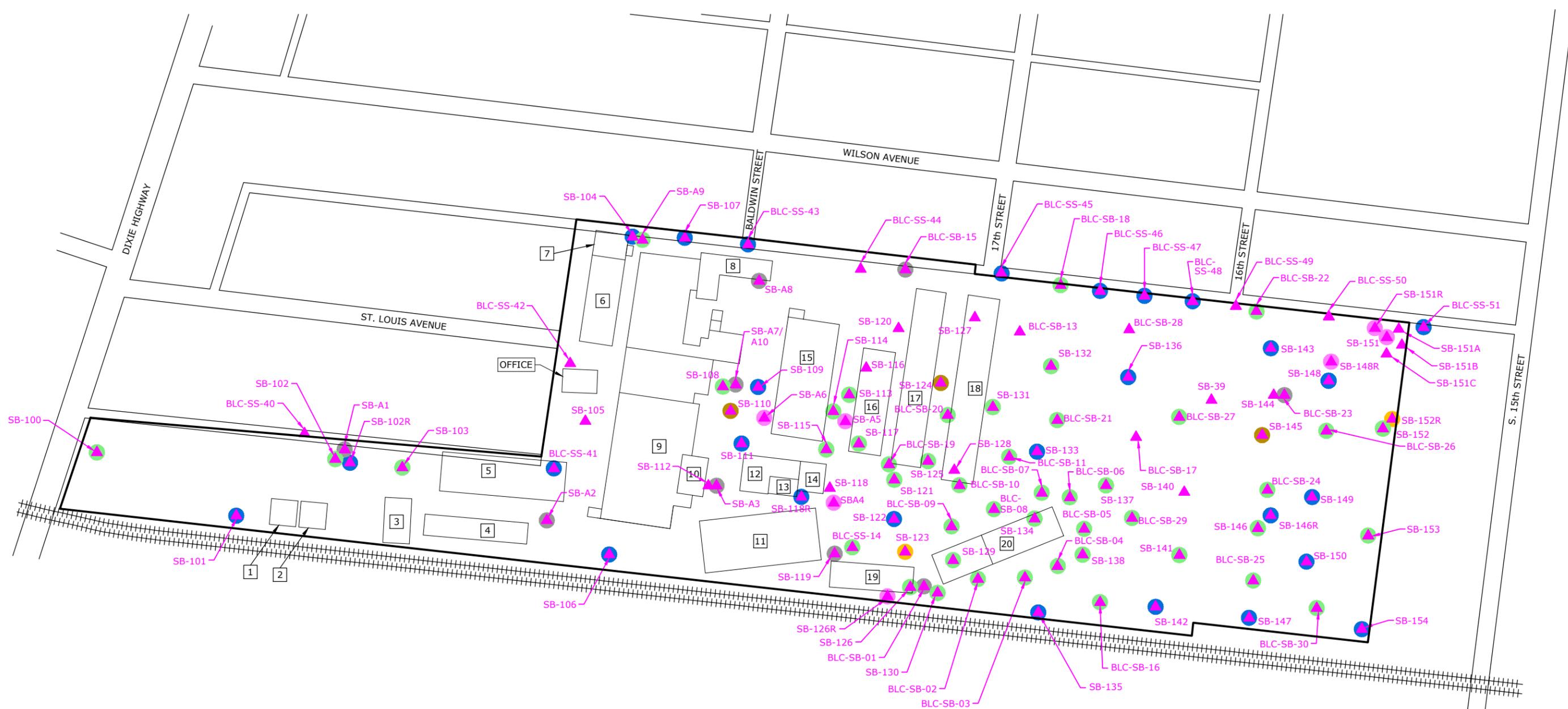
- CB CATCH BASIN LOCATION
- MH MANHOLE LOCATION
- SEDIMENT SAMPLE LOCATION
- DRAIN LINE



**SMG**  
Smith Management Group  
1405 Mercer Road  
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Louisville, KY 40223  
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SITE DRAINAGE FEATURES AND WELL LOCATION	
LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY	
SCALE: 1"=200'	JOB NO. 2016-6034
DATE: 7/28/16	
PREPARED BY: KAF	
CHECKED BY: KET	FIGURE 3

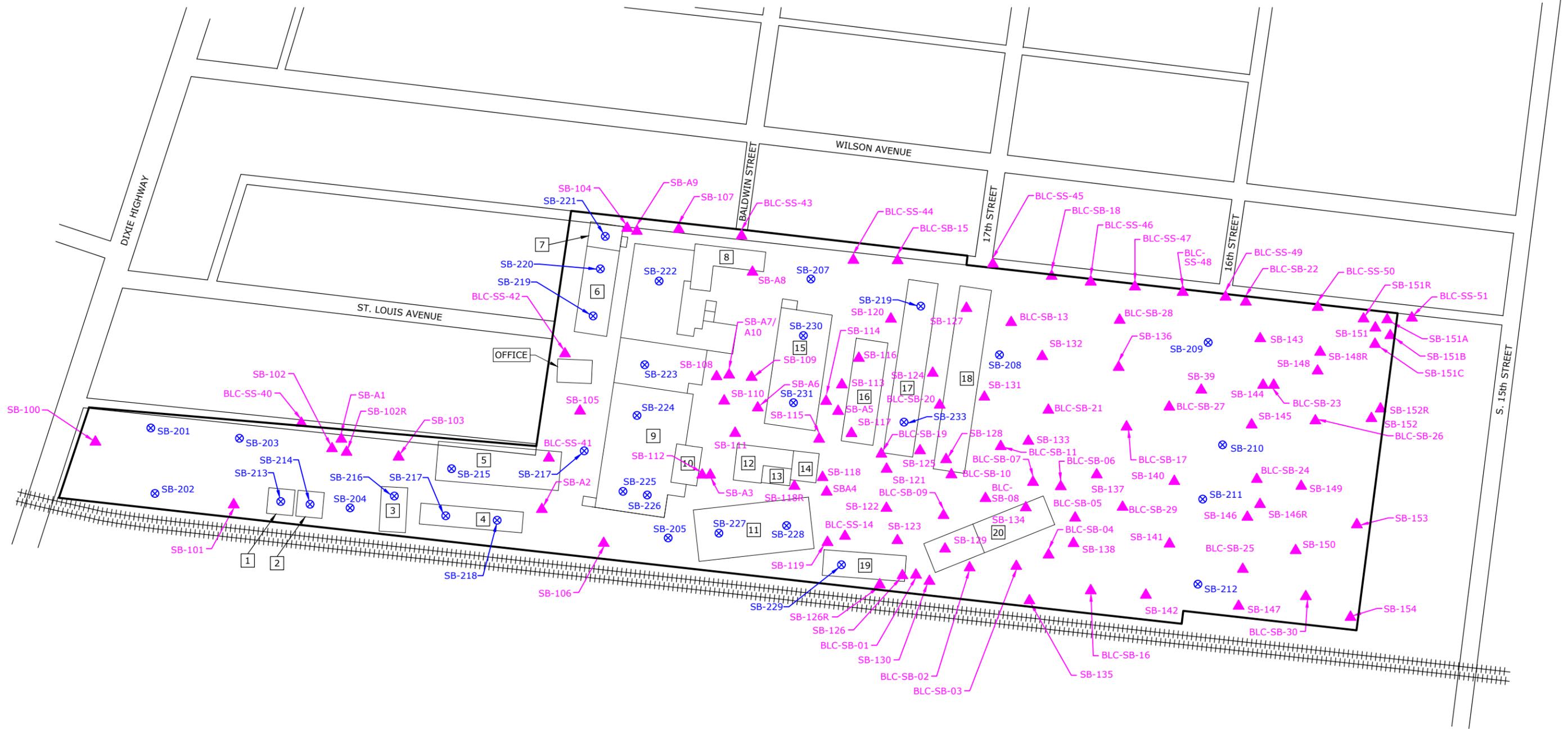




- LOCATION OF CONTAMINATION BETWEEN 0'-1'
- LOCATION OF CONTAMINATION BETWEEN 0'-2'
- LOCATION OF CONTAMINATION BETWEEN 0'-4'
- LOCATION OF CONTAMINATION BETWEEN 0'-6'
- LOCATION OF CONTAMINATION BETWEEN 0'-8'
- LOCATION OF CONTAMINATION BETWEEN 0'-12'



 <b>Smith Management Group</b> 1405 Mercer Road Lexington, KY 40511 1860 B Williamson Court Louisville, KY 40223 www.smithmanage.com	LOCATIONS ABOVE THE RESIDENTIAL RSL□	
	LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY	
SCALE: 1"=200' DATE: 11/23/16 PREPARED BY: KAF CHECKED BY: KET	JOB NO. 2016-6034	FIGURE 5



⊗ LOCATION OF PROPOSED SAMPLING LOCATION  
 201 THRU 212 SAMPLE INTERVALS  
 0-1, 1-2, 2-4  
 213 THRU 233 SAMPLE INTERVALS  
 0-1, 1-2, 2-4, 4-6, 8-10, 10-12, 12-14, 14-16



  
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ADDITIONAL SAMPLING LOCATIONS	
LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY	
SCALE: 1"=200'	JOB NO. 2016-6034
DATE: 7/27/16	
PREPARED BY: KAF	
CHECKED BY: KET	FIGURE 6





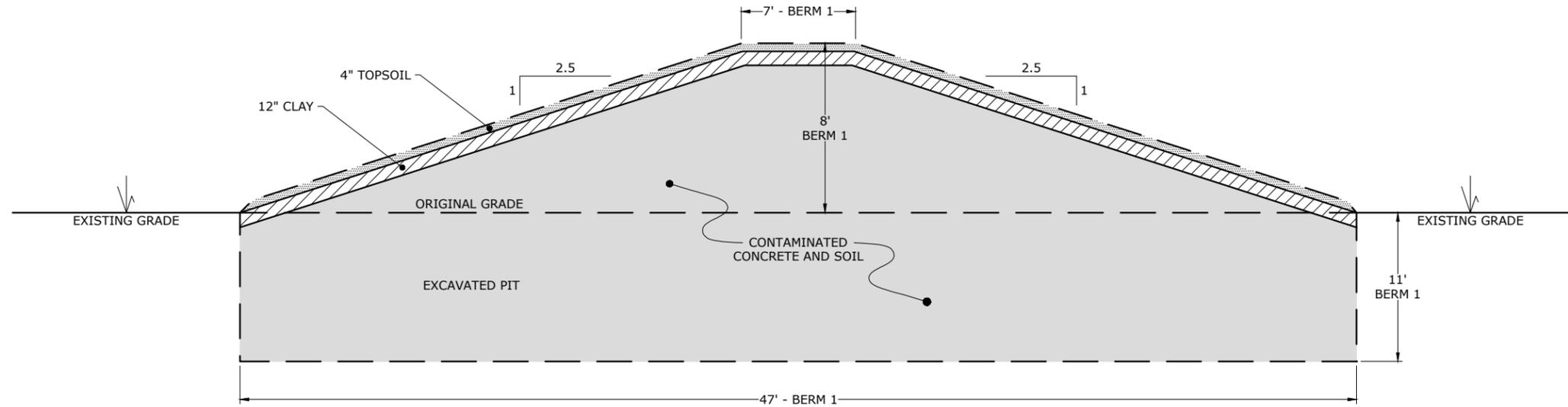
GRID LAYOUT

	A4	A5	A6	A7	A8	A9
B4	B5	B6	B7	B8	B9	
C4	C5	C6	C7	C8	C9	
D1	D2	D3	D4	D5	D6	D7
				D8	D9	

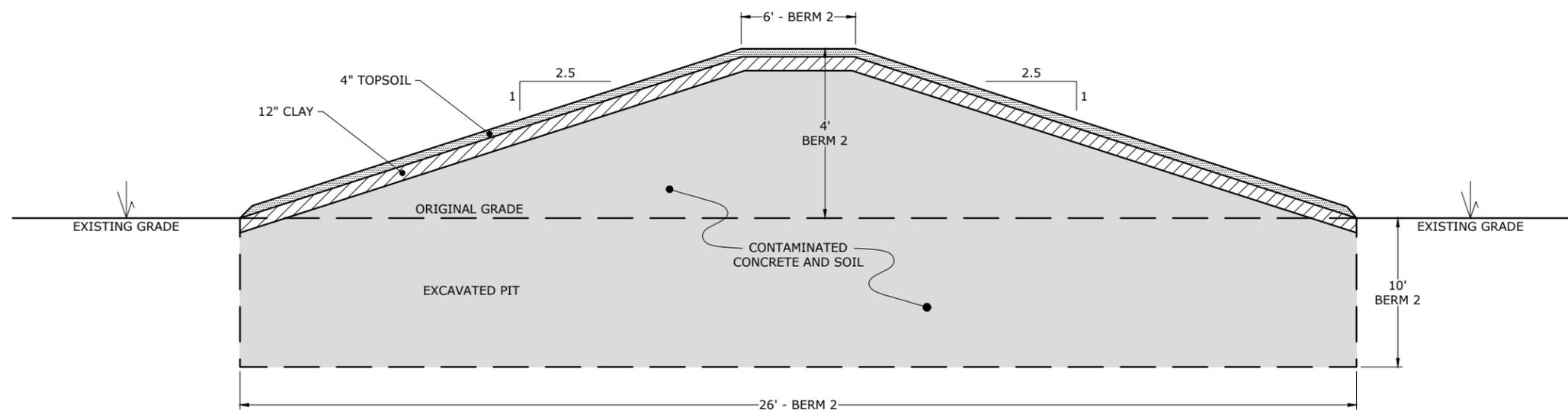
⊗ LOCATION OF PRELIMINARY CONFIRMATION SAMPLING LOCATION



 Smith Management Group 1405 Mercer Road Lexington, KY 40511 1860 B Williamson Court Louisville, KY 40223 www.smithmanage.com	PRELIMINARY CONFIRMATION SAMPLE LOCATIONS		
	LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY		
	SCALE: 1"=200' DATE: 11/28/16 PREPARED BY: KAF CHECKED BY: KET	JOB NO. 2016-6034	FIGURE 8



**BERM 1**



**BERM 2**

 <b>Smith Management Group</b> 1405 Mercer Road Lexington, KY 40511 1860 B Williamson Court Louisville, KY 40223 www.smithmanage.com	<b>BERM 1 AND 2          CROSS-SECTIONS</b>		<b>FIGURE          9</b>	
	LOUISVILLE INDUSTRIAL PARK 1391 DIXIE HIGHWAY LOUISVILLE, KENTUCKY			
	SCALE: 1"=200'	DATE: 11/23/16		JOB NO. 2016-6034
	PREPARED BY: KAF	CHECKED BY: KET		



## **TABLES**

**TABLE 1**  
**Historical Sediment Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Regional Background Soil Concentration	Units	BL-CB-1 0-1 09/20/14 BL-CB-1_0_1	BL-CB-2 0-1 09/21/14 BL-CB-2_0_1	BL-CB-3 0-1 09/21/14 BL-CB-3_0_1	BL-CB-4 0-1 09/20/14 BL-CB-4_0_1	BL-CB-5 0-1 09/20/14 BL-CB-5_0_1	BL-CB-6 0-1 09/21/14 BL-CB-6_0_1	BL-CB-7 0-1 09/21/14 BL-CB-7_0_1	BL-CB-8 0-1 09/21/14 BL-CB-8_0_1
<b>Semivolatile Organics</b>												
1-methyl-Naphthalene	73	17	--	mg/kg	0.0318 U	0.047 U	0.0762 U	0.258 U	0.0769 U	0.326 J	0.296 U	0.153 U
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0363 U	0.0537 U	0.0871 U	0.295 U	0.0879 U	0.459 J	0.339 U	0.175 U
Acenaphthene	45,000	3,500	--	mg/kg	0.0227 U	0.0335 U	0.0544 U	0.832 J	0.0549 U	0.689 J	0.212 U	0.109 U
Acenaphthylene	--	--	--	mg/kg	0.0204 U	0.0302 U	0.049 U	0.166 U	0.0495 U	0.118 U	0.19 U	0.0985 U
Anthracene	230,000	17,000	--	mg/kg	0.0204 U	0.0302 U	0.0715 J	1.31	0.106 J	1.19	0.548 J	0.372 J
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0341 U	0.0503 U	<b>0.231 J</b>	<b>4.22</b>	<b>0.483</b>	<b>3.49</b>	<b>2.11</b>	<b>1.29</b>
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0273 U	0.0402 U	<b>0.182 J</b>	<b>3.58</b>	<b>0.472</b>	<b>3.16</b>	<b>1.96</b>	<b>1.66</b>
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.0273 U	0.0402 U	<b>0.303 J</b>	<b>5.63</b>	<b>0.771</b>	<b>4.83</b>	<b>2.99</b>	<b>3.39</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.0204 U	0.0302 U	0.049 U	2.44	0.328 J	2.1	1.43	1.31
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0318 U	0.047 U	0.1 J	<b>2.33</b>	0.276 J	<b>2.16</b>	1.29 J	1.11
Chrysene	290	15	--	mg/kg	0.0204 U	0.0302 U	0.22 J	4.57	0.586	4.43	2.53	1.75
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.0159 U	0.0235 U	0.0381 U	0.129 U	0.0385 U	<b>0.491 J</b>	0.148 U	<b>0.445 J</b>
Fluoranthene	30,000	2,300	--	mg/kg	0.0204 U	0.168 J	0.483	11	1.23	9.99	4.92	2.06
Fluorene	30,000	2,300	--	mg/kg	0.0273 U	0.0402 U	0.0653 U	0.458 J	0.0659 U	0.623 J	0.254 U	0.131 U
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.0227 U	0.0335 U	0.0544 U	<b>2.05</b>	<b>0.269 J</b>	<b>1.84</b>	<b>1.2 J</b>	<b>1.16</b>
Naphthalene	17	3.8	--	mg/kg	0.0204 U	0.0302 U	0.049 U	0.166 U	0.0495 U	0.271 J	0.19 U	0.0985 U
Phenanthrene	--	--	--	mg/kg	0.0204 U	0.123 J	0.327 J	7.75	0.691	8.69	3.21	0.987
Pyrene	23,000	1,700	--	mg/kg	0.0273 U	0.144 J	0.443	9.16	1.03	8.8	4.43	2.1
<b>Inorganics</b>												
Arsenic	3	0.67	21.2	mg/kg	1.86 J	1.55 J	2.08 J	3.04 J	1.29 J	4.02 J	2.64 J	21.8 J
Lead	800	400	--	mg/kg	7.09 J	19.2 J	24.8 J	99.6 J	59.5 J	119 J	48.5 J	<b>552 J</b>
<b>Pesticides</b>												
4,4'-DDD	9.6	2.2	--	mg/kg	0.152	0.00426 U	0.0214 UJ	0.00859 U	0.00846 U	0.0429 UJ	0.043 UJ	0.14
4,4'-DDE	6.8	1.6	--	mg/kg	0.0388	0.00496 U	0.0249 UJ	0.00998 U	0.00984 U	0.0499 UJ	0.05 UJ	0.409
4,4'-DDT	8.6	1.9	--	mg/kg	0.0197	0.00843 U	0.0423 UJ	0.017 U	0.0167 U	0.0849 UJ	0.085 UJ	0.559
Dieldrin	0.14	0.033	--	mg/kg	0.00397 U	0.00397 U	0.0199 UJ	0.00799 U	0.00787 U	0.0399 UJ	0.04 UJ	<b>0.0343</b>

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (May 2016).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (May 2016 or Regional Background)

3. Arsenic concentrations are compared to the 95th Percentile of the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

J = estimated value

U = not detected

**TABLE 1**  
**Historical Sediment Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Regional Background Soil Concentration	Units	BL-CB-09 0 - 1 09/21/14 BL-CB-09_0_1	BL-CB-10 0 - 1 09/21/14 BL-CB-10_0_1	BL-CB-14 0 - 1 09/20/14 BL-CB-14_0_1	BL-MH-12 0 - 1 09/21/14 BL-MH-12_0_1	BL-MH-13 0 - 1 09/21/14 BL-MH-13_0_1	BL-MH-15 0 - 1 09/20/14 BL-MH-15_0_1
<b>Semivolatile Organics</b>										
1-methyl-Naphthalene	73	17	--	mg/kg	0.0901 UJ	0.0193 U	0.0286 U	0.0147 U	0.0157 U	0.0803 U
2-Methylnaphthalene	3,000	230	--	mg/kg	0.103 UJ	0.022 U	0.0327 U	0.0168 U	0.0179 U	0.0918 U
Acenaphthene	45,000	3,500	--	mg/kg	0.0644 UJ	0.0138 U	0.0204 U	0.0105 U	0.0112 U	0.0573 U
Acenaphthylene	--	--	--	mg/kg	0.0579 UJ	0.0124 U	0.0184 U	0.00946 U	0.0101 U	0.476
Anthracene	230,000	17,000	--	mg/kg	0.237 J	0.0334 J	0.156	0.0345 J	0.0518 J	0.839
Benzo(a)anthracene	2.9	0.15	--	mg/kg	<b>1.25 J</b>	0.0847 J	<b>0.986</b>	<b>0.175</b>	<b>0.249</b>	<b>3.6</b>
Benzo(a)pyrene	0.29	0.015	--	mg/kg	<b>0.52 J</b>	<b>0.0724 J</b>	<b>0.848</b>	<b>0.137</b>	<b>0.243</b>	<b>3.15</b>
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	<b>0.932 J</b>	0.104	<b>1.37</b>	<b>0.287</b>	<b>0.404</b>	<b>4.94</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.365 J	0.0497 J	0.57	0.106	0.176	1.81
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.195 J	0.0434 J	0.486	0.105	0.165	<b>1.87</b>
Chrysene	290	15	--	mg/kg	0.543 J	0.095	1.1	0.225	0.289	3.91
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.0451 UJ	0.00963 U	<b>0.141</b>	0.00736 U	<b>0.0518 J</b>	<b>0.524</b>
Fluoranthene	30,000	2,300	--	mg/kg	1.48 J	0.221	2.09	0.32	0.512	7.17
Fluorene	30,000	2,300	--	mg/kg	0.0773 UJ	0.0165 U	0.0245 U	0.0126 U	0.0134 U	0.213 J
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	<b>0.31 J</b>	0.0138 U	<b>0.5</b>	0.105	0.148	<b>1.76</b>
Naphthalene	17	3.8	--	mg/kg	0.0579 UJ	0.0124 U	0.0184 U	0.00946 U	0.0101 U	0.0516 U
Phenanthrene	--	--	--	mg/kg	1.01 J	0.177	1.06	0.167	0.198	3.22
Pyrene	23,000	1,700	--	mg/kg	1.15 J	0.19	1.93	0.3	0.517	6.34
<b>Inorganics</b>										
Arsenic	3	0.67	21.2	mg/kg	3.19 J	3.96 J	<b>42.8 J</b>	0.938 UJ	1.01 UJ	<b>59.9 J</b>
Lead	800	400	--	mg/kg	45 J	28.2 J	254 J	5.11 J	25.4 J	89.7 J
<b>Pesticides</b>										
4,4'-DDD	9.6	2.2	--	mg/kg	0.0429 UJ	0.00427 U	0.0169 U	0.00429 U	0.00428 U	0.0168 U
4,4'-DDE	6.8	1.6	--	mg/kg	0.0499 UJ	0.0088 J	0.0169 U	0.0136 J	0.0128 J	0.0386 J
4,4'-DDT	8.6	1.9	--	mg/kg	0.0849 UJ	0.00845 U	0.0128 J	0.00848 U	0.0113 J	0.0723
Dieldrin	0.14	0.033	--	mg/kg	0.0399 UJ	0.00398 U	0.00398 U	0.00399 U	0.00398 U	0.00396 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (May 2016).
2. Grey-shaded concentrations exceed USEPA Industrial RSLs (May 2016) or Regional Backg
3. Arsenic concentrations are compared to the 95th Percentile of the Kentucky Regional Back
4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

J = estimated value

U = not detected

**TABLE 2**  
**Historical Soil Analytical Results 2010-2011**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BLC001	BLC001	BLC002	BLC002	BLC003	BLC003	BLC004	BLC004	BLC005	BLC005	BLC006	BLC006	BLC007	BLC007	BLC008	BLC008	BLC009	BLC009	BLC010	BLC010	BLC011	BLC011	BLC013	BLC013	BLC014	BLC014	BLC015	BLC015					
					0 - 1 10/25/10 BLC-SS-01	8 - 12 10/25/10 BLC-SB-01	0 - 1 10/25/10 BLC-SS-02	8 - 12 10/25/10 BLC-SB-02	0 - 1 10/25/10 BLC-SS-03	8 - 12 10/25/10 BLC-SB-03	0 - 1 10/25/10 BLC-SS-04	8 - 12 10/25/10 BLC-SB-04	0 - 1 10/25/10 BLC-SS-05	8 - 12 10/25/10 BLC-SB-05	0 - 1 10/25/10 BLC-SS-06	8 - 12 10/25/10 BLC-SB-06	0 - 1 10/25/10 BLC-SS-07	8 - 12 10/25/10 BLC-SB-07	0 - 1 10/25/10 BLC-SS-08	8 - 12 10/25/10 BLC-SB-08	0 - 1 10/25/10 BLC-SS-09	8 - 12 10/25/10 BLC-SB-09	0 - 1 10/25/10 BLC-SS-10	8 - 12 10/25/10 BLC-SB-10	0 - 1 10/25/10 BLC-SS-11	8 - 12 10/25/10 BLC-SB-11	0 - 1 10/27/10 BLC-SS-13	8 - 12 10/27/10 BLC-SB-13	0 - 1 10/27/10 BLC-SS-14	8 - 12 10/27/10 BLC-SB-14	0 - 1 10/27/10 BLC-SS-15	8 - 12 10/27/10 BLC-SB-15					
<b>Detected Semivolatile Organics</b>																																					
1,1-Biphenyl	200	47	--	mg/kg	4.5 U	0.19 U	0.52 U	0.18 U	0.2 U	0.19 U	0.07 J	0.19 U	0.047 J	0.18 U	0.18 U [0.19 U]	0.18 U	1.1 J	0.18 U	0.21 J	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.19 U	0.18 U	0.17 U	0.18 U	0.023 J [0.18 U]	0.18 U	0.17 U	0.19 U	
1,2,4,5-Tetrachlorobenzene	250	18	--	mg/kg	8.9	0.19 U	0.52 U	0.18 U	0.042 J	0.19 U	0.022 J	0.19 U	0.18 U	0.18 U	0.18 U [0.19 U]	0.18 U	1.3 U	0.18 U	0.16 J	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U [0.18 U]	0.18 U	0.17 U	0.19 U	
3,4-Methylphenol	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA																										
Acetophenone	120,000	7,800	--	mg/kg	4.5 U	0.19 U	0.52 U	0.18 U	0.039 J	0.19 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U [0.19 U]	0.18 U	1.3 U	0.18 U	0.76 U	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U [0.18 U]	0.18 U	0.17 U	0.19 U		
2,4,5-Trichlorophenol	82,000	6,200	--	mg/kg	4.5 U	0.19 U	0.52 U	0.18 U	0.024 J	0.19 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U [0.19 U]	0.18 U	1.3 U	0.18 U	0.76 U	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U [0.18 U]	0.18 U	0.17 U	0.19 U		
2,4-Dimethylphenol	16,000	1,200	--	mg/kg	NA	NA	NA	NA	NA	NA																											
Benzaldehyde	120,000	7,800	--	mg/kg	4.5 U	0.19 U	0.52 U	0.18 U	0.2 U	0.19 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U [0.19 U]	0.18 U	1.3 U	0.18 U	0.76 U	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U [0.18 U]	0.18 U	0.17 U	0.19 U		
2-Methylnaphthalene	3,000	230	--	mg/kg	0.17	0.0036 U	0.088	0.0035 U	0.26	0.0037 U	0.62	0.0026 J	0.66	0.0032 J	0.064 J [0.047 J]	0.0035 U	6.1	0.0035 J	2.5	0.00047 J	0.1 J	0.00074 J	0.063 J	0.0038 U	0.043 J	0.0036 U	0.0019 J	0.0035 U	0.16 J [0.083]	0.0036 U	0.0034 U	0.0032	0.0032				
4,6-Dinitro-2-methylphenol	66	4.9	--	mg/kg	NA	NA	NA	NA	NA	NA																											
Acenaphthene	45,000	3,500	--	mg/kg	0.093	0.0036 U	0.14	0.0035 U	0.011	0.0037 U	0.011	0.0037 U	0.0049	0.0035 U	0.0025 J [0.0023 J]	0.0035 U	3	0.0035 U	0.26	0.0035 U	0.0099	0.0035 U	0.0095	0.0038 U	0.018	0.0036 U	0.0037 U	0.0035 U	0.0074 [0.0085 U]	0.0036 U	0.0034 U	0.00057 J	0.00057 J				
Acenaphthylene	--	--	--	mg/kg	0.014 J	0.0036 U	0.045	0.0035 U	0.0049	0.0037 U	0.0061	0.0037 U	0.01	0.0035 U	0.0072 [0.0033 J]	0.0035 U	0.3	0.0035 U	0.049	0.0035 U	0.0017 J	0.0035 U	0.0031 J	0.0038 U	0.013	0.0036 U	0.0037 U	0.0035 U	0.0044 [0.0017 J]	0.0036 U	0.0034 U	0.00081 J	0.00081 J				
Anthracene	230,000	17,000	--	mg/kg	0.33 J	0.0036 U	0.63	0.0006 J	0.046 J	0.0037 U	0.055 J	0.0037 U	0.024	0.0035 U	0.013 [0.0081]	0.0035 U	3.8	0.0035 U	0.49 J	0.0035 U	0.024	0.0015 J	0.018	0.0038 U	0.051 J	0.0036 U	0.00053 J	0.0035 U	0.026 [0.0047 J]	0.0036 U	0.0034 U	0.00037 J	0.00037 J				
Benzo(a)anthracene	2.9	0.15	--	mg/kg	1.1 J	0.0036 U	2.2	0.0012 J	0.23	0.00087 J	0.17 J	0.00063 J	0.13 J	0.00044 J	0.0035 U	7.8	0.0035 U	5.2	0.0035 U	0.13 J	0.006	0.15 J	0.0038 U	0.35	0.0036 U	0.0053	0.0035 U	0.23 [0.033]	0.0036 U	0.0034 U	0.0022	0.0022					
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.99 J	0.0036 U	2.2	0.0038 U	0.21	0.0041 U	0.13 J	0.004 U	0.12 J	0.004 U	0.085 J [0.079 J]	0.0035 U	6.4	0.0035 U	5	0.0035 U	0.14 J	0.01 U	0.16 J	0.0038 U	0.37	0.0043 U	0.0098 U	0.0035 U	0.22 [0.038]	0.0036 U	0.0034 U	0.025	0.025				
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	1.1 J	0.0036 U	2.2	0.00098 J	0.26	0.0011 J	0.15 J	0.00089 J	0.16 J	0.0009 J	0.13 J [0.14 J]	0.0035 U	9.5	0.00045 J	6	0.00061 J	0.14 J	0.0088	0.25	0.0038 U	0.54 J	0.00045 J	0.0052	0.0035 U	0.32 J [0.066]	0.0036 U	0.0034 U	0.025	0.025				
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.77 J	0.0036 U	1.9 J	0.0035 U	0.22 J	0.0037 U	0.097 J	0.0037 U	0.085 J	0.0035 U	0.1 J [0.047 J]	0.0035 U	3.7 J	0.0035 U	2.8 J	0.0035 U	0.12 J	0.0048 J	0.15 J	0.0038 U	0.23	0.00045 J	0.0053 J	0.0035 U	0.13 J [0.043]	0.0036 U	0.0034 U	0.025	0.025				
Benzo(k)fluoranthene	29	1.5	--	mg/kg	1.1 J	0.0036 U	1.8	0.00091 J	0.2 J	0.0012 J	0.14 J	0.00092 J	0.12 J	0.00098 J	0.096 J [0.085 J]	0.0035 U	9.2	0.0035 U	5.1	0.0035 U	0.15 J	0.0069	0.16 J	0.0038 U	0.47	0.00038 J	0.0062	0.0035 U	0.26 [0.051]	0.0036 U	0.0034 U	0.024	0.024				
Benzoic acid	3,300,000	250,000	--	mg/kg	NA	NA	NA	NA	NA																												
Carbazole	--	--	--	mg/kg	4.5 U	0.19 U	0.19 J	0.18 U	0.03 J	0.19 U	0.18 U	0.19 U	0.02 J	0.18 U	0.18 U [0.19 U]	0.18 U	0.42 J	0.18 U	0.54 J	0.18 U	0.028 J	0.18 U	0.024 J	0.19 U	0.054 J	0.18 U	0.19 U	0.18 U	0.031 J [0.18 U]	0.18 U	0.17 U	0.19 U	0.19 U				
Chrysene	290	15	--	mg/kg	1.2 J	0.0036 U	2.2	0.001 J	0.27	0.00097 J	0.2	0.00063 J	0.17 J	0.00054 J	0.11 J [0.12 J]	0.0035 U	13	0.0035 U	7.4	0.00056 J	0.18	0.007	0.21	0.0038 U	0.55	0.0036 U	0.0061	0.0035 U	0.3 [0.044]	0.0036 U	0.0034 U	0.026	0.026				
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.4 J	0.0036 U	0.48 J	0.0035 U	0.075 J	0.0037 U	0.032 J	0.0037 U	0.027 J	0.0035 U	0.02 J [0.017]	0.0035 U	2.2	0.0035 U	1.8	0.0035 U	0.02	0.0035 U	0.025 J	0.0038 U	0.091 J	0.0036 U	0.0015 J	0.0035 U	0.031 [0.015]	0.0036 U	0.0034 U	0.005	0.005				
Dibenzofuran	1,000	72	--	mg/kg	4.5 U	0.19 U	0.12 J	0.18 U	0.07 J	0.19 U	0.18 U	0.19 U	0.15 J	0.18 U	0.18 U [0.19 U]	0.18 U	2.8	0.18 U	0.79	0.18 U	0.021 J	0.18 U	0.022 J	0.19 U	0.024 J	0.18 U	0.19 U	0.18 U	0.056 J [0.019 J]	0.18 U	0.17 U	0.19 U	0.19 U				
Di-n-butylphthalate	82,000	6,200	--	mg/kg	NA	NA	NA	NA	NA																												
Fluoranthene	30,000	2,300	--	mg/kg	2.9 J	0.0036 U	4.3	0.0032 J	0.44	0.0014 J	0.3	0.00079 J	0.19	0.00058 J	0.13 J [0.16 J]	0.0035 U	9.9	0.0035 U	8.1	0.0035 U	0.3	0.013	0.35	0.0038 U	0.94	0.0036 U	0.01	0.0035 U	0.53 [0.061]	0.0036 U	0.0034 U	0.033	0.033				
Fluorene	30,000	2,300	--	mg/kg	0.098	0.0036 U	0.17	0.0035 U	0.01	0.0037 U	0.01	0.0037 U	0.0048	0.0035 U	0.0027 J [0.002 J]	0.0035 U	2.9	0.0035 U	0.2	0.0035 U	0.0085	0.00036 J	0.00077	0.0038 U	0.025	0.0036 U	0.0037 U	0.0035 U	0.0078 [0.0011 J]	0.0036 U	0.0034 U	0.00086 J	0.00086 J				
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.65 J	0.0036 U	1.7	0.0035 U	0.19 J	0.0037 U	0.092 J	0.0037 U	0.077 J	0.0035 U	0.075 J [0.052 J]	0.0035 U	4.3	0.0035 U	3.3	0.0035 U	0.12 J	0.0054	0.14 J	0.0038 U	0.21	0.00043 J	0.0049	0.0035 U	0.12 J [0.04]	0.0036 U	0.0034 U	0.014	0.014				
Naphthalene	17	3.8	--	mg/kg	0.13	0.0036 U	0.055	0.0035 U	0.14 J	0.0037 U	0.31	0.0037 U	0.38	0.0035 U	0.026 [0.015]	0.0035 U	6.9	0.0035 U	1.7	0.0035 U	0.034	0.0035 U	0.025	0.0038 U	0.024	0.0036 U	0.0037 U	0.0035 U	0.082 J [0.052]	0.0036 U	0.0034 U	0.018	0.018				
Pentachlorophenol	4	0.99	--	mg/kg	0.044 UJ	0.0074 UJ	0.071 UJ	0.0072 UJ	0.0081 UJ	0.0076 UJ	0.0071 UJ	0.0076 UJ	0.0072 UJ	0.0071 UJ	0.0069 UJ [0.37 U]	0.0071 UJ	0.19 UJ	0.0071 UJ	0.075 UJ	0.0071 UJ	0.0068 UJ	0.0071 UJ	0.0072 UJ	0.38 U	0.34 U	0.36 U	0.37 U	0.35 U	0.34 U [0.34 U]	0.36 U	0.34 U	0.37 U	0.37 U				
Phenanthrene	--	--	--	mg/kg	1.8 J	0.0036 U	2.4	0.002 J	0.34	0.00086 J	0.5	0.0012 J	0.38	0.0015 J	0.086 J [0.093 J]	0.0035 U	12	0.00049 J	5.1	0.00063 J	0.23	0.0057	0.19	0.0038 U	0.59	0.0036 U	0.0044	0.0035 U	0.3 [0.054]	0.0036 U	0.0034 U	0.037	0.037				
Phenol	250,000	18,000	--	mg/kg	4.5 U	0.19 U	0.52 U	0.18 U	0.2 U	0.19 U	0.18 U	0.19 U	0.18 U	0.18 U	0.18 U [0.19 U]	0.18 U	1.3 U	0.18 U	0.76 U	0.18 U	0.17 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.18 U	0.19 U	0.18 U	0.17 U	0.19 U	0.19 U			
Pyrene	23,000	1,700	--	mg/kg	2.4 J	0.0036 U	4.1	0.0035 U	0.46	0.0037 U	0.33	0.0037 U	0.23	0.0035 U	0.13 J [0.19]	0.0035 U	10	0.0035 U	6.8	0.0035 U	0.29	0.0093	0.31	0.0038 U	1.1	0.0036 U	0.01	0.0035 U	0.58 [0.063]	0.0036 U	0.0034 U	0.033	0.033				
<b>Detected Inorganics</b>																																					
Arsenic	3	0.67	21.2	mg/kg	7.4	8	11	8.2	5.6	12	9.5	7.8	8.7	9.3	6.3 [15]	8.2	24	8.																			



**TABLE 2**  
**Historical Soil Analytical Results 2010-2011**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BLC029	BLC029	BLC030	BLC030	BLC040	BLC040	BLC041	BLC041	BLC042	BLC042	BLC043	BLC043	BLC044	BLC044	BLC045	BLC045	BLC046	BLC046	BLC047	BLC047	BLC048	BLC048	BLC049	BLC049	BLC050	BLC050	BLC051	BLC051	SB-A1	SB-A2	SB-A3	SB-A4	
					0 - 1 10/27/10 BLC-SS-29	8 - 12 10/27/10 BLC-SB-29	0 - 1 10/27/10 BLC-SS-30	8 - 12 10/27/10 BLC-SB-30	09/22/11 BLC-SS-40	10/24/11 BLC-SS-40	09/22/11 BLC-SS-41	10/24/11 BLC-SS-41	09/22/11 BLC-SS-42	10/24/11 BLC-SS-42	09/22/11 BLC-SS-43	10/24/11 BLC-SS-43	09/22/11 BLC-SS-44	10/24/11 BLC-SS-44	09/22/11 BLC-SS-45	10/24/11 BLC-SS-45	09/22/11 BLC-SS-46	10/24/11 BLC-SS-46	09/22/11 BLC-SS-47	10/24/11 BLC-SS-47	09/22/11 BLC-SS-48	10/24/11 BLC-SS-48	09/22/11 BLC-SS-49	10/24/11 BLC-SS-49	09/22/11 BLC-SS-50	10/24/11 BLC-SS-50	09/22/11 BLC-SS-51	10/24/11 BLC-SS-51	11 - 12 12/06/11 SB-A1	8 - 11 12/06/11 SB-A2	9 - 12 12/06/11 SB-A3	9 - 12 12/06/11 SB-A4	
<b>Detected Semivolatile Organics</b>																																					
1,1-Biphenyl	200	47	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
1,2,4,5-Tetrachlorobenzene	250	18	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
3,4-Methylphenol	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND	
Acetophenone	120,000	7,800	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
2,4,5-Trichlorophenol	82,000	6,200	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
2,4-Dimethylphenol	16,000	1,200	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND		
Benzaldehyde	120,000	7,800	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
2-Methylnaphthalene	3,000	230	--	mg/kg	0.019	0.0036 U	0.048 [0.094 J]	0.0036 U	NA	ND	ND	ND	ND																								
4,6-Dinitro-2-methylphenol	66	4.9	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.517 J	ND		
Acenaphthene	45,000	3,500	--	mg/kg	0.0069 U	0.0036 U	0.0064 J [0.0031 J]	0.0036 U	NA	ND	ND	ND	ND																								
Acenaphthylene	--	--	--	mg/kg	0.0017 J	0.0036 U	0.0041 J [0.0065 J]	0.0036 U	NA	NA	NA	NA																									
Anthracene	230,000	17,000	--	mg/kg	0.0029 J	0.0036 U	0.019 J [0.042 J]	0.0036 U	NA	ND	ND	ND	ND																								
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.025	0.0036 U	0.085 [0.14 J]	0.0036 U	NA	ND	ND	ND	ND																								
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.031	0.0036 U	0.067 [0.15 J]	0.0036 U	NA	0.0583 JB	0.0523 JB	0.0651 JB	0.1 U																								
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.039	0.0036 U	0.093 [0.23 J]	0.0036 U	NA	0.189 B	0.175 B	0.2 B	ND																								
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.026	0.0036 U	0.051 [0.15 J]	0.0036 U	NA	0.235	0.213	0.243	ND																								
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.03	0.0036 U	0.074 [0.15 J]	0.0036 U	NA	ND	ND	ND	ND																								
Benzoic acid	3,300,000	250,000	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.531 JB	0.434 JB	0.504 JB	0.896 JB			
Carbazole	--	--	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	NA	NA	NA																									
Chrysene	290	15	--	mg/kg	0.033	0.0036 U	0.1 [0.19]	0.0036 U	NA	ND	ND	ND	ND																								
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.0097	0.0036 U	0.019 J [0.025 J]	0.0036 U	NA	0.265	0.052 U	0.275	0.1 U																								
Dibenzofuran	1,000	72	--	mg/kg	0.18 U	0.19 U	0.2 U [0.036 J]	0.18 U	NA	ND	ND	ND	ND																								
Di-n-butylphthalate	82,000	6,200	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	0.743 B	ND		
Fluoranthene	30,000	2,300	--	mg/kg	0.028	0.0036 U	0.17 [0.24]	0.0036 U	NA	ND	ND	ND	ND																								
Fluorene	30,000	2,300	--	mg/kg	0.00091 J	0.0036 U	0.0068 J [0.0048]	0.0036 U	NA	ND	ND	ND	ND																								
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.025	0.0036 U	0.047 [0.14 J]	0.0036 U	NA	0.413	0.377	0.426	ND																								
Naphthalene	17	3.8	--	mg/kg	0.0069 U	0.0036 U	0.028 [0.043 J]	0.0036 U	NA	ND	ND	ND	ND																								
Pentachlorophenol	4	0.99	--	mg/kg	0.34 U	0.36 U	0.38 U [0.001 J]	0.36 U	NA	0.285	ND	0.296 JB	ND																								
Phenanthrene	--	--	--	mg/kg	0.021	0.0036 U	0.12 [0.14 J]	0.0036 U	NA	ND	ND	ND	ND																								
Phenol	250,000	18,000	--	mg/kg	0.18 U	0.19 U	0.2 U [0.18 U]	0.18 U	NA	ND	ND	ND	ND																								
Pyrene	23,000	1,700	--	mg/kg	0.051	0.0036 U	0.18 [0.25]	0.0036 U	NA	ND	ND	ND	ND																								
<b>Detected Inorganics</b>																																					
Arsenic	3	0.67	21.2	mg/kg	13	10	23 [33]	5.7	6.08	NA	29	NA	10.9	NA	53.6	NA	5.4	NA	16 [20.6]	NA	22.6	NA	54.3	NA	38.1	NA	6.67 J	NA	18	NA	22.7	NA	8.22	13.4	10.3	8.16	
Lead	800	400	--	mg/kg	NA	NA	NA	NA	78.2	NA	75.8	NA	63.7	NA	80.2	NA	22.3	NA	77.5 [576]	NA	216	NA	768	NA	196	NA	54.4	NA	282	NA	765	NA	7.1	11.6	7.68	7.9	
<b>Detected Pesticides</b>																																					
2,4'-DDD	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND		
2,4'-DDE	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND		
2,4'-DDT	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND			
trans-Nonachlor	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	ND		
4,4'-DDD	9.6	2.2	--	mg/kg	0.024	0.0036 U	0.072 [0.14]	0.01	NA	0.0039 U	NA	0.0042 U	NA	0.0042 U	NA	0.0041 U																					

**TABLE 2**  
**Historical Soil Analytical Results 2010-2011**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	SB-A5	SB-A6	SB-A7	SB-A8	SB-A9	SS-A1	SS-A2	SS-A3	SS-A4	SS-A5	SS-A6	SS-A7	SS-A8	SS-A9
					10 - 12 12/06/11 SB-A5	10 - 12 12/06/11 SB-A6	8 - 12 12/06/11 SB-A7	10 - 12 12/06/11 SB-A8	10 - 12 12/06/11 SB-A9	0 - 4 12/06/11 SS-A1	0 - 4 12/06/11 SS-A2	0 - 4 12/06/11 SS-A3	0 - 4 12/06/11 SS-A4	0 - 4 12/06/11 SS-A5	0 - 4 12/06/11 SS-A6	0 - 4 12/06/11 SS-A7	0 - 1 12/06/11 SS-A8	0 - 1 12/06/11 SS-A9
<b>Detected Semivolatile Organics</b>																		
1,1-Biphenyl	200	47	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	250	18	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
3&4-Methylphenol	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.321	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Acetophenone	120,000	7,800	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.238 J]	ND	ND	ND	ND
2,4,5-Trichlorophenol	82,000	6,200	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
2,4-Dimethylphenol	16,000	1,200	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.354	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Benzaldehyde	120,000	7,800	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
2-Methylnaphthalene	3,000	230	--	mg/kg	ND	ND	ND [ND]	ND	ND	9.4	ND	ND	ND	ND [1.17]	ND	ND	ND	0.872
4,6-Dinitro-2-methylphenol	66	4.9	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Acenaphthene	45,000	3,500	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Acenaphthylene	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Anthracene	230,000	17,000	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.408	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Benzo(a)anthracene	2.9	0.15	--	mg/kg	ND	ND	ND [ND]	ND	ND	<b>0.727</b>	ND	0.0831 J	ND	ND [0.0868 J]	ND	ND	ND	ND
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.056 UQ	0.058 U	<b>0.058 U [0.0604 J]</b>	0.057 U	0.063 U	<b>0.556 B</b>	<b>0.0658 JB</b>	<b>0.202 B</b>	<b>0.0589 JB</b>	<b>0.198 B [0.145]</b>	<b>0.15</b>	<b>0.0679 J</b>	<b>0.0632 J</b>	<b>0.125</b>
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	ND	ND	NA	<b>0.191</b>	ND	<b>0.812 B</b>	<b>0.208 B</b>	<b>0.457 B</b>	<b>0.193 B</b>	<b>0.474 B [0.357]</b>	<b>0.322</b>	<b>0.215</b>	<b>0.205</b>	<b>0.276</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	ND	ND	NA	ND	ND	0.579	0.247	0.336	0.237	0.503 [0.297]	0.331	0.258	ND	0.274
Benzo(k)fluoranthene	29	1.5	--	mg/kg	ND	ND	NA	ND	ND	0.105 J	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Benzoic acid	3,300,000	250,000	--	mg/kg	ND	0.555 JB	0.537 JB [0.56 JB]	0.561 JB	0.683 B	NA	0.535 JB	0.529 JB	0.503 JB	0.883 JB [0.775 B]	0.587 JB	0.601 B	0.608 B	0.597 B
Carbazole	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chrysene	290	15	--	mg/kg	ND	ND	NA	ND	ND	0.747	ND	0.13 J	ND	0.116 J [0.131 J]	0.0978 J	ND	ND	0.0683 J
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.056 UQ	0.058 U	<b>0.058 U [0.282]</b>	0.057 U	0.063 U	<b>0.342</b>	0.059 U	0.059 U	0.058 U	<b>0.478 [0.292]</b>	<b>0.303</b>	0.06 U	0.06 U	<b>0.284</b>
Dibenzofuran	1,000	72	--	mg/kg	ND	ND	ND [ND]	ND	ND	2.57	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Di-n-butylphthalate	82,000	6,200	--	mg/kg	ND	0.29 JB	ND [ND]	0.341 JB	ND	ND	ND	0.591 J	ND	ND [0.338 JB]	ND	0.265 JB	ND	0.25 JB
Fluoranthene	30,000	2,300	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.743	ND	0.0701 J	ND	ND [0.128 J]	0.0983 J	ND	ND	ND
Fluorene	30,000	2,300	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.164	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	ND	ND	<b>ND [0.434]</b>	ND	ND	<b>0.518</b>	<b>0.433</b>	<b>0.527</b>	<b>0.42</b>	<b>0.766 [0.463]</b>	<b>0.514</b>	<b>0.446</b>	<b>0.438</b>	<b>0.457</b>
Naphthalene	17	3.8	--	mg/kg	ND	ND	ND [ND]	ND	ND	<b>6.25</b>	ND	ND	ND	0.0989 J [0.747]	ND	ND	ND	0.271
Pentachlorophenol	4	0.99	--	mg/kg	ND	0.314 JB	ND [ND]	0.287 JB	0.298 JB	ND	0.292 JB	0.298 JB	0.28 JB	0.452 JB [ND]	ND	0.321 JB	0.292 JB	ND
Phenanthrene	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	4.81	ND	ND	ND	0.161 [0.652]	0.109 J	ND	ND	0.472
Phenol	250,000	18,000	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.266	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Pyrene	23,000	1,700	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.81	ND	0.107 J	ND	ND [0.122 J]	0.106 J	ND	ND	ND
<b>Detected Inorganics</b>																		
Arsenic	3	0.67	21.2	mg/kg	9.6	10.6	15 [11.9]	10.7	20.8	9.79 Q	14.8	8.98	11.8	13.5 [8.7]	7.22	8.91	14.6	13.8
Lead	800	400	--	mg/kg	7.92	9.17	11.8 [10.6]	9.6	16.3	19.8 Q	36.8	40.8	13.9	48.7 [30.9]	32.1	32.4	14.9	18.7
<b>Detected Pesticides</b>																		
2,4'-DDD	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.656 D]	ND	ND	ND	ND
2,4'-DDE	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [1.05 DE]	ND	ND	ND	ND
2,4'-DDT	--	--	--	mg/kg	ND	ND	ND [0.0219]	ND	ND	ND	ND	ND	ND	ND [6.31 D]	ND	ND	ND	ND
trans-Nonachlor	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.0198	ND	0.00589	ND	0.00335 J [ND]	ND	ND	ND	ND
4,4'-DDD	9.6	2.2	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	<b>ND [5.17]</b>	ND	ND	ND	ND
4,4'-DDE	6.8	1.6	--	mg/kg	ND	ND	ND [0.0866 D]	ND	ND	ND	ND	0.0224	ND	0.442 D [0.503 J]	0.00602 J	ND	ND	0.0041 J
4,4'-DDT	8.6	1.9	--	mg/kg	ND	ND	0.00538 J [0.055 D]	ND	ND	0.00807 J	ND	0.0141	ND	<b>0.0985 D [24.9 D]</b>	ND	ND	ND	ND
Aldrin	0.14	0.031	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
alpha-BHC	0.37	0.085	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.0115]	ND	ND	ND	ND
alpha-Chlordane	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.115 D]	ND	ND	ND	ND
beta-BHC	1.3	0.3	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	0.0132 [0.0277]	ND	ND	ND	ND
delta-BHC	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dieldrin	0.14	0.033	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	0.00383 J	ND	<b>0.00956 [0.268 D]</b>	0.00236 J	ND	ND	ND
Endosulfan I	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan II	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Endrin	250	18	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.0108]	ND	ND	ND	ND
Endrin aldehyde	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.00651 N	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Endrin ketone	--	--	--	mg/kg	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
gamma-Chlordane	--	--	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [0.159 DNJ]	ND	ND	ND	ND
Heptachlor	0.51	0.12	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Heptachlor epoxide	0.25	0.059	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND
Hexachlorobenzene	1.4	0.33	--	mg/kg	ND	ND	ND [ND]	ND	ND	0.0266	0.0179	ND	ND	ND [ND]	ND	ND	ND	ND
Methoxychlor	4,100	310	--	mg/kg	ND	ND	ND [ND]	ND	ND	ND	ND	ND	ND	ND [ND]	ND	ND	ND	ND

**Notes:**  
mg/kg = milligrams per kilogram  
USEPA = United States Environmental Protection Agency  
RSL = Regional Screening Level  
1. Green-shaded concentrations exceed USEPA Residential RSLs (May 2016)  
2. Grey-shaded concentrations exceed USEPA Industrial RSLs (May 2016) and 95th percentile K1  
3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration  
4. Duplicate concentrations are presented in brackets.  
**Data Qualifiers:**  
U = not detected  
J = estimated value  
H = sample analyzed outside of hold time  
B = compound found in the blank and the sample  
N = Spike sample recovery not within control limits  
R = Rejected  
NA = Not Analyzed

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-100 0 - 1 09/20/14 BL-SB-100_0_1	BL-SB-100 1 - 2 09/20/14 BL-SB-100_1_2	BL-SB-100 2 - 4 09/20/14 BL-SB-100_2_4	BL-SB-101 0 - 1 09/20/14 BL-SB-101_0_1	BL-SB-101 1 - 2 09/20/14 BL-SB-101_1_2	BL-SB-101 2 - 4 09/20/14 BL-SB-101_2_4	BL-SB-101 4 - 6 09/20/14 BL-SB-101_4_6	BL-SB-102 0 - 1 09/20/14 BL-SB-102_0_1	BL-SB-102R 0 - 1 09/30/14 BL-SB-102R_0_1	BL-SB-102R 1 - 2 09/30/14 BL-SB-102R_1_2	BL-SB-102R 2 - 4 09/30/14 BL-SB-102R_2_4
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.346	0.0167 U	NA	1.39	0.0339 J	NA	NA	0.362	0.705 J	0.0595 J	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	0.712	0.0191 U	NA	1.64	0.0383 J	NA	NA	0.44	0.864 J	0.066 J	NA
Acenaphthene	45,000	3,500	--	mg/kg	0.0244 U	0.0119 U	NA	0.0617 U	0.012 U	NA	NA	0.0105 U	0.00976 UJ	0.00985 UJ	NA
Acenaphthylene	--	--	--	mg/kg	0.106 J	0.0107 U	NA	0.0556 U	0.0108 U	NA	NA	0.155	0.0535 J	0.0569 J	NA
Anthracene	230,000	17,000	--	mg/kg	0.26	0.0107 U	NA	0.111 J	0.0194 J	NA	NA	0.0884	0.0536 J	0.0754 J	NA
Benzo(a)anthracene	2.9	0.15	--	mg/kg	<b>0.303</b>	0.0382 J	0.0147 U	<b>0.234 J</b>	0.06 J	0.0147 U	NA	<b>0.214</b>	0.128 J	<b>0.412 J</b>	0.0177 UJ
Benzo(a)pyrene	0.29	0.015	--	mg/kg	<b>0.3</b>	0.0143 U	0.0118 U	<b>0.281 J</b>	<b>0.0548 J</b>	0.0117 U	0.0113 U	<b>0.256</b>	<b>0.11 J</b>	<b>0.428 J</b>	0.0142 UJ
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	<b>0.402</b>	0.0428 J	0.0118 U	<b>0.473</b>	0.0726 J	0.0117 U	NA	<b>0.563</b>	<b>0.216 J</b>	<b>0.57 J</b>	0.0142 UJ
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.32	0.0107 U	NA	0.0556 U	0.0108 U	NA	NA	0.203	0.0781 J	0.282 J	NA
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.154 J	0.0167 U	NA	0.243 J	0.0379 J	NA	NA	0.193	0.0704 J	0.238 J	NA
Chrysene	290	15	--	mg/kg	0.355	0.0391 J	NA	0.309 J	0.0587 J	NA	NA	0.265	0.167 J	0.47 J	NA
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.0171 U	0.00836 U	NA	0.0432 U	0.00839 U	NA	NA	<b>0.056 J</b>	0.00683 UJ	<b>0.079 J</b>	0.00826 UJ
Fluoranthene	30,000	2,300	--	mg/kg	0.244	0.0761 J	NA	0.271 J	0.108	NA	NA	0.261	0.155 J	0.81 J	NA
Fluorene	30,000	2,300	--	mg/kg	0.0293 U	0.0143 U	NA	0.0741 U	0.0144 U	NA	NA	0.0126 U	0.0117 UJ	0.0118 UJ	NA
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	<b>0.173</b>	0.0119 U	0.00982 U	0.0617 U	0.012 U	NA	NA	<b>0.18</b>	0.0636 J	<b>0.244 J</b>	0.0118 UJ
Naphthalene	17	3.8	--	mg/kg	0.139 J	0.0107 U	NA	1.17	0.0282 J	NA	NA	0.278	0.506 J	0.0467 J	NA
Phenanthrene	--	--	--	mg/kg	1.4	0.043 J	NA	0.873	0.086	NA	NA	0.254	0.464 J	0.456 J	NA
Pyrene	23,000	1,700	--	mg/kg	0.843	0.0629 J	NA	0.27 J	0.0835	NA	NA	0.407	0.17 J	0.705 J	NA
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	12.9 J	8.99 J	NA	15.8 J	8.23 J	NA	NA	1.64 J	8.12	5.6	NA
Lead	800	400	--	mg/kg	49.7 J	27.3 J	NA	71.7 J	44.9 J	NA	NA	7.53 J	11.7 J	81.1 J	NA
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.0111 J	0.00517 U	NA	0.0052 U	0.00521 U	NA	NA	0.0101 J	0.00417 UJ	0.0171 J	NA
4,4'-DDE	6.8	1.6	--	mg/kg	0.0061 U	0.00602 U	NA	0.00604 U	0.00606 U	NA	NA	0.0597	0.21 J	0.017 UJ	NA
4,4'-DDT	8.6	1.9	--	mg/kg	0.0165 J	0.0102 U	NA	0.0103 U	0.0103 U	NA	NA	0.0451	0.142 J	0.018 J	NA
Aldrin	0.14	0.031	--	mg/kg	0.00378 U	0.00373 U	NA	0.00375 U	0.00376 U	NA	NA	0.0033 U	0.003 UJ	0.0098 J	NA
alpha-BHC	0.37	0.085	--	mg/kg	0.00244 U	0.00241 U	NA	0.00242 U	0.00242 U	NA	NA	0.00213 U	0.00194 UJ	0.00921 J	NA
alpha-Chlordane	--	--	--	mg/kg	0.00524 U	0.00517 U	NA	0.0052 U	0.00521 U	NA	NA	0.00458 U	0.00417 UJ	0.00869 J	NA
beta-BHC	1.3	0.3	--	mg/kg	0.00244 U	0.00241 U	NA	0.00242 U	0.00242 U	NA	NA	0.00213 U	0.00194 UJ	0.00936 J	NA
Chlordane (technical)	--	--	--	mg/kg	0.443 U	0.437 U	NA	0.439 U	0.44 U	NA	NA	0.386 U	0.352 UJ	0.362 UJ	NA
delta-BHC	--	--	--	mg/kg	0.00463 U	0.00457 U	NA	0.00459 U	0.0046 U	NA	NA	0.00404 U	0.00368 UJ	0.00874 J	NA
Dieldrin	0.14	0.033	--	mg/kg	0.00488 U	0.00481 U	NA	0.00484 U	0.00485 U	NA	NA	<b>0.0903</b>	0.0162 J	0.00904 J	NA
Endosulfan I	--	--	--	mg/kg	0.00573 U	0.00566 U	NA	0.00568 U	0.00569 U	NA	NA	0.005 U	0.00455 UJ	0.0101 J	NA
Endosulfan II	--	--	--	mg/kg	0.00671 U	0.00662 U	NA	0.00665 U	0.00666 U	NA	NA	0.00585 U	0.00533 UJ	0.00903 J	NA
Endosulfan sulfate	--	--	--	mg/kg	0.0061 U	0.00602 U	NA	0.00604 U	0.00606 U	NA	NA	0.00532 U	0.00484 UJ	0.0131 J	NA
Endrin	250	18	--	mg/kg	0.00524 U	0.00517 U	NA	0.0052 U	0.00521 U	NA	NA	0.00458 U	0.00417 UJ	0.00919 J	NA
Endrin aldehyde	--	--	--	mg/kg	0.00622 U	0.00614 U	NA	0.00617 U	0.00618 U	NA	NA	0.00543 U	0.00494 UJ	0.00859 J	NA
Endrin ketone	--	--	--	mg/kg	0.00719 U	0.0071 U	NA	0.00713 U	0.00715 U	NA	NA	0.00628 U	0.00572 UJ	0.0112 J	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.00475 U	0.00469 U	NA	0.00471 U	0.00473 U	NA	NA	0.00415 U	0.00378 UJ	0.00942 J	NA
gamma-Chlordane	--	--	--	mg/kg	0.00963 U	0.00951 U	NA	0.00955 U	0.00957 U	NA	NA	0.00841 U	0.00765 UJ	0.00789 UJ	NA
Heptachlor	0.51	0.12	--	mg/kg	0.00512 U	0.00505 U	NA	0.00508 U	0.00509 U	NA	NA	0.00447 U	0.00407 UJ	0.0103 J	NA
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.00792 U	0.00782 U	NA	0.00786 U	0.00788 U	NA	NA	0.00692 U	0.0063 UJ	0.00939 J	NA
Toxaphene	2.1	0.48	--	mg/kg	0.514 U	0.508 U	NA	0.51 U	0.511 U	NA	NA	0.449 U	0.409 UJ	0.421 UJ	NA

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

**Data Qualifiers:**

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification.

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-102R 4 - 6 09/30/14 BL-SB-102R_4_6	BL-SB-102R 10 - 12 09/30/14 BL-SB-102R_10_12	BL-SB-102R 12 - 14 09/30/14 BL-SB-102R_12_14	BL-SB-102R 14 - 16 09/30/14 BL-SB-102R_14_16	BL-SB-103 0 - 1 09/19/14 BL-SB-103_0_1	BL-SB-103 1 - 2 09/19/14 BL-SB-103_1_2	BL-SB-103 2 - 4 09/19/14 BL-SB-103_2_4	BL-SB-104 0 - 1 09/29/14 BL-SB-104_0_1	BL-SB-104 1 - 2 09/29/14 BL-SB-104_1_2	BL-SB-105 0 - 1 09/20/14 BL-SB-105_0_1	BL-SB-105 1 - 2 09/20/14 BL-SB-105_1_2
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	0.0137 U [0.0139 U]	0.014 U	0.014 U	0.139 J	0.0134 U	NA	0.0148 U	0.0309 J	0.0175 U	0.0167 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	0.0157 U [0.0159 U]	0.016 U	0.016 U	0.156 J	0.0153 U	NA	0.017 U	0.0365 J	0.02 U	0.0191 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	0.00982 U [0.00995 U]	0.00999 U	0.00998 U	0.0466 U	0.00959 U	NA	0.0106 U	0.0461 J	0.0125 U	0.0119 U
Acenaphthylene	--	--	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.00954 U	0.00886 U	0.0112 U	0.0107 U
Anthracene	230,000	17,000	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.00954 U	0.182	0.0112 U	0.0107 U
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0177 UJ	0.0147 U [0.0149 U]	0.015 U	0.015 U	0.07 U	0.0144 U	NA	0.0334 J	<b>0.256</b>	0.0187 U	0.0179 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0142 UJ	0.0118 U [0.0119 U]	0.012 U	0.012 U	0.056 U	0.0115 U	NA	0.0127 U	<b>0.188</b>	0.015 U	0.0143 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0142 UJ	0.0118 U [0.0119 U]	0.012 U	0.012 U	<b>0.168 J</b>	0.0115 U	0.0119 U	0.0522 J	<b>0.258</b>	0.0418 J	0.0143 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.00954 U	0.121	0.0112 U	0.0107 U
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	0.0137 U [0.0139 U]	0.014 U	0.014 U	0.0663 J	0.0134 U	NA	0.0197 J	0.0878	0.0186 J	0.0167 U
<b>Chrysene</b>	290	15	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.0433 J	0.258	0.0112 U	0.0107 U
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	0.00828 UJ	0.00687 U [0.00696 U]	0.00699 U	0.00699 U	0.0326 U	0.00671 U	NA	0.00742 U	<b>0.0397 J</b>	0.00874 U	0.00835 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.174 J	0.00863 U	NA	0.0699 J	0.537	0.0632 J	0.0107 U
Fluorene	30,000	2,300	--	mg/kg	NA	0.0118 U [0.0119 U]	0.012 U	0.012 U	0.056 U	0.0115 U	NA	0.0127 U	0.0802	0.015 U	0.0143 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	0.0118 UJ	0.00982 U [0.00995 U]	0.00999 U	0.00998 U	0.0466 U	0.00959 U	NA	0.0106 U	0.0986	0.0125 U	0.0119 U
Naphthalene	17	3.8	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.00954 U	0.0391 J	0.0112 U	0.0107 U
Phenanthrene	--	--	--	mg/kg	NA	0.00884 U [0.00895 U]	0.00899 U	0.00898 U	0.042 U	0.00863 U	NA	0.0463 J	0.641	0.0429 J	0.0107 U
Pyrene	23,000	1,700	--	mg/kg	NA	0.0118 U [0.0119 U]	0.012 U	0.012 U	0.164 J	0.0115 U	NA	0.061 J	0.478	0.0533 J	0.0143 U
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	9.81 [12.2]	8.09	11.3	17.3 J	7.95 J	NA	0.929 U	12.4	6.92 J	12 J
<b>Lead</b>	800	400	--	mg/kg	NA	10.4 [10.8]	8.09	10.3	42.8	45.7	NA	16.4	44.8	44.5 J	28.5 J
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	0.000429 U [0.000423 U]	0.000414 U	0.000428 U	0.00521 U	0.000499 U	NA	0.00448 UJ	0.00458 UJ	0.00543 U	0.0051 U
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	0.000499 U [0.000492 U]	0.000482 U	0.000498 U	0.00985 J	0.00058 U	NA	0.00521 UJ	0.00532 UJ	0.00632 U	0.00593 U
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	0.000849 U [0.000836 U]	0.000819 U	0.000846 U	0.0103 U	0.000986 U	NA	0.00885 UJ	0.00905 UJ	0.0107 U	0.0101 U
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	0.00031 U [0.000305 U]	0.000299 U	0.000309 U	0.00376 U	0.00036 U	NA	0.00323 UJ	0.0033 UJ	0.00392 U	0.00368 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	0.0002 U [0.000197 U]	0.000193 U	0.000199 U	0.00242 U	0.000232 U	NA	0.00208 UJ	0.00213 UJ	0.00253 U	0.00237 U
alpha-Chlordane	--	--	--	mg/kg	NA	0.000429 U [0.000423 U]	0.000414 U	0.000428 U	0.00521 U	0.000499 U	NA	0.00448 UJ	0.00458 UJ	0.00543 U	0.0051 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	0.0002 U [0.000197 U]	0.000193 U	0.000199 U	0.00242 U	0.000232 U	NA	0.00208 UJ	0.00213 UJ	0.00253 U	0.00237 U
Chlordane (technical)	--	--	--	mg/kg	NA	0.0362 U [0.0357 U]	0.035 U	0.0361 U	0.44 U	0.0421 U	NA	0.378 UJ	0.386 UJ	0.459 U	0.431 U
delta-BHC	--	--	--	mg/kg	NA	0.000379 U [0.000374 U]	0.000366 U	0.000378 U	0.0046 U	0.000441 U	NA	0.00396 UJ	0.00404 UJ	0.0048 U	0.00451 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	0.000399 U [0.000393 U]	0.000385 U	0.000398 U	0.00485 U	0.000464 U	NA	0.00417 UJ	0.00426 UJ	0.00505 U	0.00475 U
Endosulfan I	--	--	--	mg/kg	NA	0.000469 U [0.000462 U]	0.000453 U	0.000468 U	0.00569 U	0.000545 U	NA	0.00489 UJ	0.005 UJ	0.00594 U	0.00558 U
Endosulfan II	--	--	--	mg/kg	NA	0.000549 U [0.000541 U]	0.00053 U	0.000547 U	0.00666 U	0.000638 U	NA	0.00573 UJ	0.00585 UJ	0.00695 U	0.00653 U
Endosulfan sulfate	--	--	--	mg/kg	NA	0.000499 U [0.000492 U]	0.000482 U	0.000498 U	0.00606 U	0.00058 U	NA	0.00521 UJ	0.00532 UJ	0.00632 U	0.00593 U
Endrin	250	18	--	mg/kg	NA	0.000429 U [0.000423 U]	0.000414 U	0.000428 U	0.00521 UJ	0.000499 UJ	NA	0.00448 UJ	0.00458 UJ	0.00543 U	0.0051 U
Endrin aldehyde	--	--	--	mg/kg	NA	0.000509 UJ [0.000502 U]	0.000491 U	0.000508 U	0.00618 U	0.000592 U	NA	0.00531 UJ	0.00543 UJ	0.00644 U	0.00605 U
Endrin ketone	--	--	--	mg/kg	NA	0.000589 U [0.00058 U]	0.000568 U	0.000587 U	0.00715 U	0.000685 U	NA	0.00614 UJ	0.00628 UJ	0.00745 U	0.007 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	0.000389 U [0.000384 U]	0.000376 U	0.000388 U	0.00473 U	0.000453 U	NA	0.00406 UJ	0.00415 UJ	0.00493 U	0.00463 U
gamma-Chlordane	--	--	--	mg/kg	NA	0.000789 U [0.000777 U]	0.000761 U	0.000786 U	0.00957 U	0.000917 U	NA	0.00823 UJ	0.00841 UJ	0.00998 U	0.00937 U
Heptachlor	0.51	0.12	--	mg/kg	NA	0.000419 U [0.000413 U]	0.000405 U	0.000418 U	0.00509 U	0.000487 U	NA	0.00437 UJ	0.00447 UJ	0.00531 U	0.00498 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	0.000649 U [0.000639 U]	0.000626 U	0.000647 U	0.00788 U	0.000754 U	NA	0.00677 UJ	0.00692 UJ	0.00821 U	0.00771 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	0.0421 U [0.0415 U]	0.0407 U	0.042 U	0.511 U	0.049 U	NA	0.439 UJ	0.449 UJ	0.533 U	0.501 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-106 0 - 1 09/19/14 BL-SB-106_0_1	BL-SB-106 1 - 2 09/19/14 BL-SB-106_1_2	BL-SB-106 2 - 4 09/19/14 BL-SB-106_2_4	BL-SB-106 4 - 6 09/20/14 BL-SB-106_4_6	BL-SB-107 0 - 1 09/20/14 BL-SB-107_0_1	BL-SB-107 1 - 2 09/20/14 BL-SB-107_1_2	BL-SB-107 2 - 4 09/20/14 BL-SB-107_2_4	BL-SB-107 4 - 6 09/20/14 BL-SB-107_4_6	BL-SB-108 0 - 1 09/20/14 BL-SB-108_0_1	BL-SB-108 1 - 2 09/20/14 BL-SB-108_1_2	BL-SB-108 2 - 4 09/20/14 BL-SB-108_2_4
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.396	0.0319 J	NA	NA	0.0783 U	0.0884	NA	NA	0.0275 U	0.013 U	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	0.495	0.0354 J	NA	NA	0.0895 U	0.106	NA	NA	0.0314 U	0.0149 U	NA
Acenaphthene	45,000	3,500	--	mg/kg	0.00986 U	0.00976 U	NA	NA	0.204 J	0.0109 U	NA	NA	0.0196 U	0.00931 U	NA
Acenaphthylene	--	--	--	mg/kg	0.033 J	0.0483 J	NA	NA	0.0503 U	0.00982 U	NA	NA	0.0177 U	0.00838 U	NA
Anthracene	230,000	17,000	--	mg/kg	0.0206 J	0.0336 J	NA	NA	0.253 J	0.0115 J	NA	NA	0.0177 U	0.00838 U	NA
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0936	0.128	NA	NA	1.15	0.0532 J	0.0135 U	NA	0.148	0.014 U	NA
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0942	0.162	0.0119 U	0.012 U	1.21	0.0508 J	0.0108 U	0.0119 U	0.146	0.0112 U	0.0115 U
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.173	0.329	0.0119 U	0.012 U	1.82	0.0958	0.0108 U	NA	0.24	0.0112 U	0.0115 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.0718	0.109	NA	NA	0.948	0.06 J	NA	NA	0.0996 J	0.00838 U	NA
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0617 J	0.115	NA	NA	0.826	0.0363 J	NA	NA	0.0891 J	0.013 U	NA
Chrysene	290	15	--	mg/kg	0.115	0.177	NA	NA	1.26	0.0694 J	NA	NA	0.151	0.00838 U	NA
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.0069 U	0.00684 U	NA	NA	0.217 J	0.00763 U	0.00631 U	NA	0.0137 U	0.00652 U	NA
Fluoranthene	30,000	2,300	--	mg/kg	0.127	0.157	NA	NA	2.91	0.089	NA	NA	0.363	0.00838 U	NA
Fluorene	30,000	2,300	--	mg/kg	0.0118 U	0.0117 U	NA	NA	0.0671 U	0.0131 U	NA	NA	0.0236 U	0.0112 U	NA
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.0636 J	0.103	NA	NA	0.769	0.0404 J	0.00901 U	NA	0.0897 J	0.00931 U	NA
Naphthalene	17	3.8	--	mg/kg	0.31	0.0281 J	NA	NA	0.0503 U	0.0675 J	NA	NA	0.0177 U	0.00838 U	NA
Phenanthrene	--	--	--	mg/kg	0.239	0.0637 J	NA	NA	1.66	0.0853	NA	NA	0.0177 U	0.00838 U	NA
Pyrene	23,000	1,700	--	mg/kg	0.14	0.157	NA	NA	2.32	0.0765	NA	NA	0.363	0.0112 U	NA
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	8.52 J	43.6 J	11.5 J	15.7	12.1 J	6.78 J	NA	NA	28.4 J	5.18 J	14.6
Lead	800	400	--	mg/kg	32.9	164	NA	NA	198 J	30.4 J	NA	NA	412 J	18.2 J	15
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.00452 U	0.00551 U	NA	NA	0.00952 U	0.00466 U	NA	NA	0.00832 UJ	0.000416 U	NA
4,4'-DDE	6.8	1.6	--	mg/kg	0.0143 J	0.00641 U	NA	NA	0.0917 J	0.0256	NA	NA	0.00968 UJ	0.000484 U	NA
4,4'-DDT	8.6	1.9	--	mg/kg	0.00893 U	0.0109 U	NA	NA	0.0364 J	0.0092 U	NA	NA	0.0165 UJ	0.000822 U	NA
Aldrin	0.14	0.031	--	mg/kg	0.00326 U	0.00398 U	NA	NA	0.00687 U	0.00336 U	NA	NA	0.006 UJ	0.0003 U	NA
alpha-BHC	0.37	0.085	--	mg/kg	0.0021 U	0.00256 U	NA	NA	0.00443 U	0.00217 U	NA	NA	0.00387 UJ	0.000193 U	NA
alpha-Chlordane	--	--	--	mg/kg	0.00452 U	0.00551 U	NA	NA	0.00952 U	0.00466 U	NA	NA	0.00832 UJ	0.000416 U	NA
beta-BHC	1.3	0.3	--	mg/kg	0.0021 U	0.00256 U	NA	NA	0.00443 U	0.00217 U	NA	NA	0.00387 UJ	0.000193 U	NA
Chlordane (technical)	--	--	--	mg/kg	0.382 U	0.465 U	NA	NA	0.804 U	0.393 U	NA	NA	0.703 UJ	0.0351 U	NA
delta-BHC	--	--	--	mg/kg	0.00399 U	0.00487 U	NA	NA	0.00842 U	0.00411 U	NA	NA	0.00736 UJ	0.000368 U	NA
Dieldrin	0.14	0.033	--	mg/kg	0.0042 U	0.00513 U	NA	NA	0.00886 U	0.00433 U	NA	NA	0.00774 UJ	0.000387 U	NA
Endosulfan I	--	--	--	mg/kg	0.00494 U	0.00603 U	NA	NA	0.0104 U	0.00509 U	NA	NA	0.0091 UJ	0.000455 U	NA
Endosulfan II	--	--	--	mg/kg	0.00578 U	0.00705 U	NA	NA	0.0122 U	0.00596 U	NA	NA	0.0106 UJ	0.000532 U	NA
Endosulfan sulfate	--	--	--	mg/kg	0.00525 U	0.00641 U	NA	NA	0.0111 U	0.00541 U	NA	NA	0.00968 UJ	0.000484 U	NA
Endrin	250	18	--	mg/kg	0.00452 U	0.00551 UJ	NA	NA	0.00952 U	0.00466 U	NA	NA	0.00832 UJ	0.000416 U	NA
Endrin aldehyde	--	--	--	mg/kg	0.00536 U	0.00654 U	NA	NA	0.0113 U	0.00552 U	NA	NA	0.00987 UJ	0.000493 U	NA
Endrin ketone	--	--	--	mg/kg	0.0062 U	0.00757 U	NA	NA	0.0131 U	0.00639 U	NA	NA	0.0114 UJ	0.000571 U	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.0041 U	0.005 U	NA	NA	0.00864 U	0.00422 U	NA	NA	0.00755 UJ	0.000377 U	NA
gamma-Chlordane	--	--	--	mg/kg	0.0083 U	0.0101 U	NA	NA	0.0175 U	0.00855 U	NA	NA	0.0153 UJ	0.000764 U	NA
Heptachlor	0.51	0.12	--	mg/kg	0.00441 U	0.00539 U	NA	NA	0.0093 U	0.00455 U	NA	NA	0.00813 UJ	0.000406 U	NA
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.00683 U	0.00833 U	NA	NA	0.0144 U	0.00704 U	NA	NA	0.0126 UJ	0.000629 U	NA
Toxaphene	2.1	0.48	--	mg/kg	0.444 U	0.541 U	NA	NA	0.935 U	0.457 U	NA	NA	0.817 UJ	0.0408 U	NA

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November

2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional

Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-108 10 - 12 09/20/14 BL-SB-108_10_12	BL-SB-108 12 - 14 09/20/14 BL-SB-108_12_14	BL-SB-108 14 - 16 09/20/14 BL-SB-108_14_16	BL-SB-109 0 - 1 09/20/14 BL-SB-109_0_1	BL-SB-109 1 - 2 09/20/14 BL-SB-109_1_2	BL-SB-109 2 - 4 09/20/14 BL-SB-109_2_4	BL-SB-109 4 - 6 09/20/14 BL-SB-109_4_6	BL-SB-110 0 - 1 09/19/14 BL-SB-110_0_1	BL-SB-110 1 - 2 09/19/14 BL-SB-110_1_2	BL-SB-110 2 - 4 09/19/14 BL-SB-110_2_4	BL-SB-110 4 - 6 09/19/14 BL-SB-110_4_6
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0157 U [0.0157 U]	0.0161 U	0.0157 U	0.0403 J	0.0178 U	NA	NA	0.0133 U	0.027 U	NA	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0179 U [0.018 U]	0.0184 U	0.018 U	0.041 J	0.0204 U	NA	NA	0.0151 U	0.0309 U	NA	NA
Acenaphthene	45,000	3,500	--	mg/kg	0.0112 U [0.0112 U]	0.0115 U	0.0112 U	0.0112 U	0.0127 U	NA	NA	0.0433 J	0.0193 U	NA	NA
Acenaphthylene	--	--	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0101 U	0.0115 U	NA	NA	0.0522 J	0.0174 U	NA	NA
Anthracene	230,000	17,000	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0132 J	0.0128 J	NA	NA	0.143	0.0174 U	NA	NA
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0168 U [0.0169 U]	0.0172 U	0.0169 U	0.0769	0.0555 J	NA	NA	<b>0.533</b>	0.0522 J	0.015 U	NA
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0134 U [0.0135 U]	0.0138 U	0.0135 U	<b>0.0782</b>	<b>0.0524 J</b>	0.0118 U	0.0116 U	<b>0.496</b>	<b>0.07 J</b>	0.012 U	<b>0.0199 J</b>
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.0134 U [0.0135 U]	0.0138 U	0.0135 U	0.131	0.0616 J	NA	NA	<b>0.686</b>	0.129	0.012 U	NA
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0642 J	0.0115 U	NA	NA	0.472	0.116 J	NA	NA
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0157 U [0.0157 U]	0.0161 U	0.0157 U	0.0433 J	0.0266 J	NA	NA	0.239	0.0444 J	NA	NA
Chrysene	290	15	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0919	0.0663 J	NA	NA	0.488	0.0979 J	NA	NA
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.00784 U [0.00786 U]	0.00804 U	0.00787 U	0.00785 U	0.00892 U	NA	NA	<b>0.0913</b>	0.0135 U	0.00698 U	NA
Fluoranthene	30,000	2,300	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.169	0.108	NA	NA	1.14	0.204	NA	NA
Fluorene	30,000	2,300	--	mg/kg	0.0134 U [0.0135 U]	0.0138 U	0.0135 U	0.0135 U	0.0153 U	NA	NA	0.0435 J	0.0231 U	NA	NA
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.0112 U [0.0112 U]	0.0115 U	0.0112 U	0.0501 J	0.0127 U	NA	NA	<b>0.329</b>	0.0193 U	0.00997 U	NA
Naphthalene	17	3.8	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0101 U	0.0115 U	NA	NA	0.00852 U	0.0174 U	NA	NA
Phenanthrene	--	--	--	mg/kg	0.0101 U [0.0101 U]	0.0103 U	0.0101 U	0.0851	0.0749 J	NA	NA	0.606	0.135	NA	NA
Pyrene	23,000	1,700	--	mg/kg	0.0134 U [0.0135 U]	0.0138 U	0.0135 U	0.139	0.122	NA	NA	0.952	0.158	NA	NA
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	9.41 [11.3]	12.9	6.82	8.41 J	11.1 J	NA	NA	14.8 J	8.4 J	NA	NA
Lead	800	400	--	mg/kg	11.5 [13.3]	14.6	7.33	48.3 J	60.6 J	NA	NA	107	76.8	NA	NA
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.000493 U [0.000482 U]	0.000488 U	0.000475 U	0.00474 U	0.00548 U	NA	NA	0.00501 U	0.00509 U	NA	NA
4,4'-DDE	6.8	1.6	--	mg/kg	0.000573 U [0.000561 U]	0.000567 U	0.000552 U	0.00551 U	0.00637 U	NA	NA	0.00583 U	0.00592 U	NA	NA
4,4'-DDT	8.6	1.9	--	mg/kg	0.00417 [0.000953 U]	0.000964 U	0.000939 U	0.00937 U	0.0108 U	NA	NA	0.00991 U	0.0101 U	NA	NA
Aldrin	0.14	0.031	--	mg/kg	0.000355 U [0.000348 U]	0.000352 U	0.000342 U	0.00342 U	0.00395 U	NA	NA	0.00361 U	0.00367 U	NA	NA
alpha-BHC	0.37	0.085	--	mg/kg	0.000229 U [0.000224 U]	0.000227 U	0.000221 U	0.00221 U	0.00255 U	NA	NA	0.00233 U	0.00237 U	NA	NA
alpha-Chlordane	--	--	--	mg/kg	0.000493 U [0.000482 U]	0.000488 U	0.000475 U	0.00474 U	0.00548 U	NA	NA	0.00501 U	0.00509 U	NA	NA
beta-BHC	1.3	0.3	--	mg/kg	0.000229 U [0.000224 U]	0.000227 U	0.000221 U	0.00221 U	0.00255 U	NA	NA	0.00233 U	0.00237 U	NA	NA
Chlordane (technical)	--	--	--	mg/kg	0.0416 U [0.0407 U]	0.0412 U	0.0401 U	0.4 U	0.462 U	NA	NA	0.423 U	0.43 U	NA	NA
delta-BHC	--	--	--	mg/kg	0.000436 U [0.000426 U]	0.000431 U	0.00042 U	0.00419 U	0.00484 U	NA	NA	0.00443 U	0.0045 U	NA	NA
Dieldrin	0.14	0.033	--	mg/kg	0.000459 U [0.000449 U]	0.000454 U	0.000442 U	0.00441 U	0.00509 U	NA	NA	0.00466 U	0.00474 U	NA	NA
Endosulfan I	--	--	--	mg/kg	0.000539 U [0.000527 U]	0.000533 U	0.000519 U	0.00518 U	0.00598 U	NA	NA	0.00548 U	0.00557 U	NA	NA
Endosulfan II	--	--	--	mg/kg	0.000631 U [0.000617 U]	0.000624 U	0.000607 U	0.00607 U	0.007 U	NA	NA	0.00641 U	0.00651 U	NA	NA
Endosulfan sulfate	--	--	--	mg/kg	0.000573 U [0.000561 U]	0.000567 U	0.000552 U	0.00551 U	0.00637 U	NA	NA	0.00583 U	0.00592 U	NA	NA
Endrin	250	18	--	mg/kg	0.000493 U [0.000482 U]	0.000488 U	0.000475 U	0.00474 U	0.00548 U	NA	NA	0.00501 U	0.00509 U	NA	NA
Endrin aldehyde	--	--	--	mg/kg	0.000585 U [0.000572 U]	0.000578 U	0.000563 U	0.00562 U	0.00649 U	NA	NA	0.00595 U	0.00604 U	NA	NA
Endrin ketone	--	--	--	mg/kg	0.000676 U [0.000662 U]	0.000669 U	0.000652 U	0.00651 U	0.00751 U	NA	NA	0.00688 U	0.00699 U	NA	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.000447 U [0.000437 U]	0.000442 U	0.000431 U	0.0043 U	0.00497 U	NA	NA	0.00455 U	0.00462 U	NA	NA
gamma-Chlordane	--	--	--	mg/kg	0.000906 U [0.000886 U]	0.000896 U	0.000873 U	0.00871 U	0.0101 U	NA	NA	0.00921 U	0.00936 U	NA	NA
Heptachlor	0.51	0.12	--	mg/kg	0.000482 U [0.000471 U]	0.000476 U	0.000464 U	0.00463 U	0.00535 U	NA	NA	0.0049 U	0.00497 U	NA	NA
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.000745 U [0.000729 U]	0.000737 U	0.000718 U	0.00717 U	0.00828 U	NA	NA	0.00758 U	0.0077 U	NA	NA
Toxaphene	2.1	0.48	--	mg/kg	0.0484 U [0.0473 U]	0.0479 U	0.0466 U	0.465 U	0.537 U	NA	NA	0.492 U	0.5 U	NA	NA

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November

2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional

Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-110 6 - 8 09/19/14 BL-SB-110_6_8	BL-SB-110 8 - 10 09/19/14 BL-SB-110_8_10	BL-SB-111 0 - 1 09/19/14 BL-SB-111_0_1	BL-SB-111 1 - 2 09/19/14 BL-SB-111_1_2	BL-SB-111 2 - 4 09/19/14 BL-SB-111_2_4	BL-SB-111 4 - 6 09/19/14 BL-SB-111_4_6	BL-SB-112 10 - 12 09/19/14 BL-SB-112_10_12	BL-SB-112 12 - 14 09/19/14 BL-SB-112_12_14	BL-SB-112 14 - 16 09/19/14 BL-SB-112_14_16	BL-SB-113 0 - 1 09/19/14 BL-SB-113_0_1	BL-SB-113 1 - 2 09/19/14 BL-SB-113_1_2
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.0137 U	0.0139 U	NA	NA	0.0134 U	0.0131 U	0.0139 U	0.0371 J	0.0133 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0156 U	0.0159 U	NA	NA	0.0153 U	0.0149 U	0.0159 U	0.0402 J	0.0152 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.00976 U	0.00992 U	NA	NA	0.00957 U	0.00933 U	0.00992 U	0.0652 J	0.00953 U
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.00878 U	0.00892 U	NA	NA	0.00861 U	0.00839 U	0.00892 U	0.00891 U	0.00858 U
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.00878 U	0.0123 J	NA	NA	0.00861 U	0.00839 U	0.00892 U	0.263	0.0156 J
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0325 J	0.0469 J	NA	NA	0.0143 U	0.014 U	0.0149 U	<b>0.648</b>	0.0384 J
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0148 U	0.0147 U	<b>0.0336 J</b>	<b>0.0429 J</b>	0.012 U	0.0119 U	0.0115 U	0.0112 U	0.0119 U	<b>0.447</b>	0.0114 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0538 J	0.0712	NA	NA	0.0115 U	0.0112 U	0.0119 U	<b>0.887</b>	0.0447 J
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.00878 U	0.00892 U	NA	NA	0.00861 U	0.00839 U	0.00892 U	0.434	0.00858 U
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.0206 J	0.0257 J	NA	NA	0.0134 U	0.0131 U	0.0139 U	0.343	0.0165 J
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.0365 J	0.0549 J	NA	NA	0.00861 U	0.00839 U	0.00892 U	0.689	0.0355 J
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	NA	0.00683 U	0.00694 U	NA	NA	0.0067 U	0.00653 U	0.00694 U	<b>0.0879</b>	0.00667 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.0649 J	0.129	NA	NA	0.00861 U	0.00839 U	0.00892 U	1.81	0.0981
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.0117 U	0.0119 U	NA	NA	0.0115 U	0.0112 U	0.0119 U	0.0678	0.0114 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	0.00976 U	0.00992 U	NA	NA	0.00957 U	0.00933 U	0.00992 U	<b>0.371</b>	0.00953 U
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.00878 U	0.00892 U	NA	NA	0.00861 U	0.00839 U	0.00892 U	0.0727	0.00858 U
Phenanthrene	--	--	--	mg/kg	NA	NA	0.034 J	0.0944	NA	NA	0.00861 U	0.00839 U	0.00892 U	1.41	0.0794
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.0547 J	0.0949	NA	NA	0.0115 U	0.0112 U	0.0119 U	1.37	0.0718
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	NA	8.21 J	8.95 J	NA	NA	7.13 J	6.49 J	9.76 J	<b>62.2 J</b>	13.3 J
<b>Lead</b>	800	400	--	mg/kg	NA	NA	43.5	27.3	NA	NA	7.07	7.93	6.66 J	19.4	14.6
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.00515 U	0.00544 U	NA	NA	0.000452 U	0.00046 U	0.000428 U	<b>2.53 D</b>	0.0165
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.00598 U	0.00632 U	NA	NA	0.000525 U	0.000535 U	0.000498 U	0.0973	0.00228
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.0102 U	0.0108 U	NA	NA	0.000893 U	0.000909 U	0.000847 U	1.2 DJ	0.0172
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.00371 U	0.00392 U	NA	NA	0.000326 U	0.000332 U	0.000309 U	0.0036 U	0.00037 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00239 U	0.00253 U	NA	NA	0.00021 U	0.000214 U	0.000199 U	0.00233 U	0.000239 U
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.00515 U	0.00544 U	NA	NA	0.000452 U	0.00046 U	0.000428 U	0.0518	0.000513 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00239 U	0.00253 U	NA	NA	0.00021 U	0.000214 U	0.000199 U	0.00233 U	0.000239 U
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.434 U	0.459 U	NA	NA	0.0381 U	0.0388 U	0.0362 U	0.422 U	0.0433 U
delta-BHC	--	--	--	mg/kg	NA	NA	0.00455 U	0.00481 U	NA	NA	0.000399 U	0.000406 U	0.000379 U	0.00442 U	0.000453 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	0.00479 U	0.00506 U	NA	NA	0.00042 U	0.000428 U	0.000398 U	<b>0.228 J</b>	0.00206
Endosulfan I	--	--	--	mg/kg	NA	NA	0.00562 U	0.00594 U	NA	NA	0.000494 U	0.000503 U	0.000468 U	0.00546 U	0.000561 U
Endosulfan II	--	--	--	mg/kg	NA	NA	0.00658 U	0.00696 U	NA	NA	0.000578 U	0.000588 U	0.000548 U	0.00639 U	0.000656 U
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.00598 U	0.00632 U	NA	NA	0.000525 U	0.000535 U	0.000498 U	0.00581 U	0.000597 U
Endrin	250	18	--	mg/kg	NA	NA	0.00515 U	0.00544 U	NA	NA	0.000452 U	0.00046 U	0.000428 U	0.005 U	0.000513 U
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.0061 U	0.00645 U	NA	NA	0.000536 U	0.000546 U	0.000508 U	0.00593 U	0.000609 U
Endrin ketone	--	--	--	mg/kg	NA	NA	0.00706 U	0.00746 U	NA	NA	0.00062 U	0.000631 U	0.000588 U	0.00686 U	0.000704 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00467 U	0.00493 U	NA	NA	0.00041 U	0.000417 U	0.000389 U	0.00453 U	0.000465 U
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.00945 U	0.00999 U	NA	NA	0.00083 U	0.000845 U	0.000787 U	0.0435 J	0.000943 U
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.00503 U	0.00531 U	NA	NA	0.000441 U	0.000449 U	0.000418 U	0.00488 U	0.000501 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.00778 U	0.00822 U	NA	NA	0.000683 U	0.000695 U	0.000648 U	0.00756 U	0.000776 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.505 U	0.534 U	NA	NA	0.0443 U	0.0451 U	0.042 U	<b>4.81</b>	0.0504 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-113 2 - 4 09/19/14 BL-SB-113_2_4	BL-SB-113 8 - 10 09/19/14 BL-SB-113_8_10	BL-SB-114 0 - 1 09/19/14 BL-SB-114_0_1	BL-SB-115 0 - 1 09/19/14 BL-SB-115_0_1	BL-SB-115 1 - 2 09/19/14 BL-SB-115_1_2	BL-SB-115 2 - 4 09/19/14 BL-SB-115_2_4	BL-SB-115 8 - 10 09/19/14 BL-SB-115_8_10	BL-SB-116 0 - 1 09/21/14 BL-SB-116_0_1	BL-SB-116 1 - 2 09/21/14 BL-SB-116_1_2	BL-SB-116 8 - 10 09/21/14 BL-SB-116_8_10	BL-SB-117 0 - 1 09/21/14 BL-SB-117_0_1	BL-SB-117 1 - 2 09/21/14 BL-SB-117_1_2
<b>Semivolatile Organics</b>																
1-methyl-Naphthalene	73	17	--	mg/kg	NA	0.0135 U [0.0135]	0.0385 J	0.0139 U	0.0136 U	NA	0.0137 U	0.0152 U	0.0158 U	0.0175 U	0.0151 U	0.0155 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	0.0155 U [0.0154]	0.0413 J	0.0159 U	0.0156 U	NA	0.0157 U	0.0174 U	0.018 U	0.02 U	0.0173 U	0.0177 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	0.00967 U	0.0099 U	0.00993 U	0.00972 U	NA	0.00979 U	0.0109 U	0.0113 U	0.0125 U	0.0108 U	0.0111 U
Acenaphthylene	--	--	--	mg/kg	NA	0.0087 U [0.00867]	0.00891 U	0.00894 U	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.00973 U	0.00997 U
Anthracene	230,000	17,000	--	mg/kg	NA	0.0087 U [0.00867]	0.0444 J	0.0323 J	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.0197 J	0.00997 U
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0149 U	0.0145 U [0.0144]	<b>0.182</b>	0.0488 J	0.0146 U	NA	0.0147 U	0.0163 U	0.0169 U	0.0187 U	0.0587 J	0.0166 U
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.012 U	0.0116 U [0.0116]	<b>0.19</b>	<b>0.0412 J</b>	0.0117 U	0.0119 U	0.0117 U	0.0131 U	0.0135 U	0.015 U	<b>0.0507 J</b>	0.0133 U
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.012 U	0.0116 U [0.0116]	<b>0.276</b>	0.0651 J	0.0117 U	NA	0.0117 U	0.0131 U	0.0135 U	0.015 U	0.0752	0.0133 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	0.0087 U [0.00867]	0.146	0.00894 U	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.0392 J	0.00997 U
Benzo(k)fluoranthene	29	1.5	--	mg/kg	NA	0.0135 U [0.0135]	0.118	0.0226 J	0.0136 U	NA	0.0137 U	0.0152 U	0.0158 U	0.0175 U	0.0317 J	0.0155 U
Chrysene	290	15	--	mg/kg	NA	0.0087 U [0.00867]	0.212	0.0457 J	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.062 J	0.00997 U
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.00697 U	0.00677 U	0.00693 U	0.00695 U	0.0068 U	NA	0.00685 U	0.00762 U	0.00788 U	0.00875 U	0.00757 U	0.00776 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	0.0087 U [0.00867]	0.443	0.113	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.143	0.00997 U
Fluorene	30,000	2,300	--	mg/kg	NA	0.0116 U [0.0116]	0.0119 U	0.0119 U	0.0117 U	NA	0.0117 U	0.0131 U	0.0135 U	0.015 U	0.013 U	0.0133 U
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.00996 U	0.00967 U	0.121	0.00993 U	0.00972 U	NA	0.00979 U	0.0109 U	0.0113 U	0.0125 U	0.0108 U	0.0111 U
Naphthalene	17	3.8	--	mg/kg	NA	0.0087 U [0.00867]	0.00891 U	0.00894 U	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.00973 U	0.00997 U
Phenanthrene	--	--	--	mg/kg	NA	0.0087 U [0.00867]	0.274	0.0898	0.00875 U	NA	0.00881 U	0.00979 U	0.0101 U	0.0112 U	0.0993	0.00997 U
Pyrene	23,000	1,700	--	mg/kg	NA	0.0116 U [0.0116]	0.348	0.0871	0.0117 U	NA	0.0117 U	0.0131 U	0.0135 U	0.015 U	0.124	0.0133 U
<b>Inorganics</b>																
Arsenic	3	0.67	21.2	mg/kg	16.9 J	9.59 J [8.25 J]	8.36 J	8.11 J	9.62 J	NA	11.4 J	12.4 J	10.5 J	13.6	7.44 J	5.25 J
Lead	800	400	--	mg/kg	NA	8.38 [12.6]	20.3	40.4	14.7	NA	12.2	32.3 J	51.2 J	15.5	17.2 J	14.1 J
<b>Pesticides</b>																
4,4'-DDD	9.6	2.2	--	mg/kg	0.000428 U	0.000509 U	0.00606 J	0.0126	0.000518 U	NA	0.000495 U	0.000951 J	0.000425 U	0.000399 U	0.00428 U	0.00413 U
4,4'-DDE	6.8	1.6	--	mg/kg	NA	0.000592 U	0.0273	0.0413	0.000602 U	NA	0.000576 U	0.0202	0.000495 U	0.000464 U	0.045	0.0048 U
4,4'-DDT	8.6	1.9	--	mg/kg	NA	0.00101 U	0.0122 J	0.014	0.0109	NA	0.000979 U	0.00247 J	0.000841 U	0.000788 U	0.0176	0.00816 U
Aldrin	0.14	0.031	--	mg/kg	NA	0.000367 U	0.00322 U	0.000379 U	0.000373 U	NA	0.000357 U	0.000337 U	0.000307 U	0.000287 U	0.00309 U	0.00298 U
alpha-BHC	0.37	0.085	--	mg/kg	NA	0.000237 U	0.00208 U	0.000245 U	0.000241 U	NA	0.00023 U	0.000217 U	0.000198 U	0.000185 U	0.00199 U	0.00192 U
alpha-Chlordane	--	--	--	mg/kg	NA	0.000509 U	0.00447 U	0.000526 U	0.000518 U	NA	0.000495 U	0.000467 U	0.000425 U	0.000399 U	0.00428 U	0.00413 U
beta-BHC	1.3	0.3	--	mg/kg	NA	0.000237 U	0.00208 U	0.000245 U	0.000241 U	NA	0.00023 U	0.00018 J	0.000198 U	0.000185 U	0.00199 U	0.00192 U
Chlordane (technical)	--	--	--	mg/kg	NA	0.043 U [0.042 U]	0.378 U	0.0444 U	0.0437 U	NA	0.0418 U	0.0395 U	0.0359 U	0.0337 U	0.362 U	0.349 U
delta-BHC	--	--	--	mg/kg	NA	0.00045 U	0.00395 U	0.000465 U	0.000458 U	NA	0.000438 U	0.000413 U	0.000376 U	0.000352 U	0.00379 U	0.00365 U
Dieldrin	0.14	0.033	--	mg/kg	0.000398 U	0.000473 U	0.00416 U	0.00143 J	0.000482 U	NA	0.000461 U	0.00141 J	0.000396 U	0.000371 U	0.00398 U	0.00384 U
Endosulfan I	--	--	--	mg/kg	NA	0.000556 U	0.00489 U	0.000575 U	0.000566 U	NA	0.000541 U	0.000511 U	0.000465 U	0.000436 U	0.00468 U	0.00451 U
Endosulfan II	--	--	--	mg/kg	NA	0.000651 U	0.00572 U	0.000673 U	0.000662 U	NA	0.000634 U	0.000598 U	0.000544 U	0.00051 U	0.00548 U	0.00528 U
Endosulfan sulfate	--	--	--	mg/kg	NA	0.000592 U	0.0052 U	0.000612 U	0.000602 U	NA	0.000576 U	0.000544 U	0.000495 U	0.000464 U	0.00498 U	0.0048 U
Endrin	250	18	--	mg/kg	NA	0.000509 UJ	0.00447 UJ	0.000526 UJ	0.000518 U	NA	0.000495 U	0.000467 U	0.000425 U	0.000399 U	0.00428 U	0.00413 U
Endrin aldehyde	--	--	--	mg/kg	NA	0.000604 U	0.0053 U	0.000624 U	0.000614 U	NA	0.000587 U	0.000554 U	0.000504 U	0.000473 U	0.00508 U	0.0049 U
Endrin ketone	--	--	--	mg/kg	NA	0.000698 U	0.00614 U	0.000722 U	0.000711 U	NA	0.00068 U	0.000641 U	0.000584 U	0.000547 U	0.00588 U	0.00566 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	0.000462 U	0.00406 U	0.000477 U	0.00047 U	NA	0.000449 U	0.000424 U	0.000386 U	0.000362 U	0.00389 U	0.00374 U
gamma-Chlordane	--	--	--	mg/kg	NA	0.000935 U	0.00822 U	0.000966 U	0.000951 U	NA	0.00091 U	0.000859 U	0.000781 U	0.000733 U	0.00787 U	0.00758 U
Heptachlor	0.51	0.12	--	mg/kg	NA	0.000497 U	0.00437 U	0.000514 U	0.000506 U	NA	0.000484 U	0.000457 U	0.000415 U	0.000389 U	0.00418 U	0.00403 U
Heptachlor epoxide	0.25	0.059	--	mg/kg	NA	0.000769 U	0.00676 U	0.000795 U	0.000783 U	NA	0.000749 U	0.00247 JN	0.000643 U	0.000603 U	0.00648 U	0.00624 U
Toxaphene	2.1	0.48	--	mg/kg	0.042 U	0.0499 U [0.0488]	0.439 U	0.0516 U	0.0508 U	NA	0.0486 U	0.0459 U	0.0417 U	0.0391 U	0.42 U	0.405 U

**Notes:**

- mg/kg = milligrams per kilogram
  - USEPA = United States Environmental Protection Agency
  - RSL = Regional Screening Level
  - 1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).
  - 2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)
  - 3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.
  - 4. Duplicate concentrations are presented in brackets.
- Data Qualifiers:**
- B = compound found in the blank and the sample
  - D = Compound quantitated using a secondary dilution.
  - J = estimated value
  - JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification
  - R = - Data was rejected
  - U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-117 2 - 4 09/21/14 BL-SB-117_2_4	BL-SB-117 8 - 10 09/21/14 BL-SB-117_8_10	BL-SB-118 0 - 1 09/19/14 BL-SB-118_0_1	BL-SB-118R 0 - 1 09/30/14 BL-SB-118R_0_1	BL-SB-118R 1 - 2 09/30/14 BL-SB-118R_1_2	BL-SB-118R 2 - 4 09/30/14 BL-SB-118R_2_4	BL-SB-118R 4 - 6 09/30/14 BL-SB-118R_4_6	BL-SB-118R 8 - 10 09/30/14 BL-SB-118R_8_10	BL-SB-119 0 - 1 09/19/14 BL-SB-119_0_1	BL-SB-119 1 - 2 09/19/14 BL-SB-119_1_2	BL-SB-119 2 - 4 09/19/14 BL-SB-119_2_4
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	0.0169 U	0.0133 U	0.0284 J	0.0136 UJ	NA	NA	0.0139 U	0.0996 J	0.0472 J	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	0.0193 U	0.0153 U	0.0318 J	0.0155 UJ	NA	NA	0.0159 U	0.123 J	0.0581 J	NA
Acenaphthene	45,000	3,500	--	mg/kg	NA	0.0121 U	0.00954 U	0.00937 UJ	0.00969 UJ	NA	NA	0.00996 U	0.0605 J	0.00952 U	NA
Acenaphthylene	--	--	--	mg/kg	NA	0.0109 U	0.00858 U	0.00844 UJ	0.00872 UJ	NA	NA	0.00896 U	0.0958 J	0.00857 U	NA
Anthracene	230,000	17,000	--	mg/kg	NA	0.0109 U	0.00858 U	0.0161 J	0.0358 J	NA	NA	0.00896 U	0.27	0.0463 J	NA
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	0.0181 U	0.0143 U	0.0773 J	0.14 J	NA	NA	0.0149 U	<b>0.852</b>	<b>0.176</b>	0.015 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	R	0.0145 U	0.0114 U	<b>0.0744 J</b>	<b>0.145 J</b>	0.0143 UJ	0.0147 UJ	0.012 U	<b>0.929</b>	<b>0.134</b>	0.012 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	0.0145 U	0.0364 J	0.121 J	<b>0.243 J</b>	0.0143 UJ	0.0147 UJ	0.012 U	<b>1.49</b>	<b>0.272</b>	0.012 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	0.0109 U	0.00858 U	0.064 J	0.108 J	NA	NA	0.00896 U	0.706	0.122	NA
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	0.0169 U	0.0144 J	0.0364 J	0.0923 J	NA	NA	0.0139 U	0.573	0.0367 J	NA
<b>Chrysene</b>	290	15	--	mg/kg	NA	0.0109 U	0.00858 U	0.0817 J	0.159 J	NA	NA	0.00896 U	0.937	0.201	NA
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	0.00846 U	0.00667 U	0.00656 UJ	0.00678 UJ	NA	NA	0.00697 U	<b>0.145</b>	0.00666 U	0.00698 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	0.0109 U	0.00858 U	0.135 J	0.236 J	NA	NA	0.00896 U	1.77	0.391	NA
Fluorene	30,000	2,300	--	mg/kg	NA	0.0145 U	0.0114 U	0.0112 UJ	0.0116 UJ	NA	NA	0.012 U	0.0683 J	0.0114 U	NA
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	0.0121 U	0.00954 U	0.0532 J	0.0961 J	NA	NA	0.00996 U	<b>0.597</b>	0.111	0.00997 U
Naphthalene	17	3.8	--	mg/kg	NA	0.0109 U	0.00858 U	0.00844 UJ	0.00872 UJ	NA	NA	0.00896 U	0.0959 J	0.0398 J	NA
Phenanthrene	--	--	--	mg/kg	NA	0.0109 U	0.00858 U	0.069 J	0.0992 J	NA	NA	0.00896 U	1.01	0.195	NA
Pyrene	23,000	1,700	--	mg/kg	NA	0.0145 U	0.0114 U	0.116 J	0.217 J	NA	NA	0.012 U	1.5	0.319	NA
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	14.1	7.25 J	10.1	10	NA	NA	14	17.4 J	<b>54.4 J</b>	17.1 J
<b>Lead</b>	800	400	--	mg/kg	NA	17.9	19.3	0.546 U	21.8 J	NA	NA	11.9	56.8	20.9	NA
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	0.000426 U	0.0123 J	0.0146 J	0.00425 UJ	NA	NA	0.000427 U	0.457	0.0533	NA
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	0.000496 U	0.0655	0.0471 J	0.0112 J	NA	NA	0.000497 U	1.45 D	0.571	NA
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	0.000842 U	0.0511	0.0544 J	0.0293 J	NA	NA	0.000845 U	<b>10.3 D</b>	0.362	0.187
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	0.000307 U	0.00326 U	0.0029 UJ	0.00306 UJ	NA	NA	0.000308 U	0.00333 U	0.00329 U	NA
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	0.000198 U	0.0021 U	0.00187 UJ	0.00197 UJ	NA	NA	0.000199 U	0.00933 J	0.0051 J	NA
alpha-Chlordane	--	--	--	mg/kg	NA	0.000426 U	0.00452 U	0.00402 UJ	0.00425 UJ	NA	NA	0.000427 U	0.00462 U	0.00457 U	NA
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	0.000198 U	0.0021 U	0.00187 UJ	0.00197 UJ	NA	NA	0.000199 U	0.0975	0.018 J	NA
Chlordane (technical)	--	--	--	mg/kg	NA	0.036 U	0.382 U	0.34 UJ	0.358 UJ	NA	NA	0.0361 U	0.39 U	0.386 U	NA
delta-BHC	--	--	--	mg/kg	NA	0.000377 U	0.004 U	0.00356 UJ	0.00375 UJ	NA	NA	0.000378 U	0.00408 U	0.00404 U	NA
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	0.000396 U	0.00554 J	0.00374 UJ	0.00395 UJ	NA	NA	0.000398 U	<b>1.88 D</b>	0.0244	<b>0.0379</b>
Endosulfan I	--	--	--	mg/kg	NA	0.000466 U	0.00494 U	0.0044 UJ	0.00464 UJ	NA	NA	0.000467 U	0.00505 U	0.00499 U	NA
Endosulfan II	--	--	--	mg/kg	NA	0.000545 U	0.00579 U	0.00515 UJ	0.00543 UJ	NA	NA	0.000547 U	0.00591 U	0.00584 U	NA
Endosulfan sulfate	--	--	--	mg/kg	NA	0.000496 U	0.00526 U	0.00468 UJ	0.00494 UJ	NA	NA	0.000497 U	0.00537 U	0.00531 U	NA
Endrin	250	18	--	mg/kg	NA	0.000426 U	0.00452 UJ	0.00402 UJ	0.00425 UJ	NA	NA	0.000427 U	0.00462 UJ	0.00457 UJ	NA
Endrin aldehyde	--	--	--	mg/kg	NA	0.000505 U	0.00536 U	0.00477 UJ	0.00504 UJ	NA	NA	0.000507 U	0.00548 U	0.00542 U	NA
Endrin ketone	--	--	--	mg/kg	NA	0.000585 U	0.00621 U	0.00552 UJ	0.00583 UJ	NA	NA	0.000586 U	0.00634 U	0.00627 U	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	0.000387 U	0.0041 U	0.00365 UJ	0.00385 UJ	NA	NA	0.000388 U	0.00419 U	0.00414 U	NA
gamma-Chlordane	--	--	--	mg/kg	NA	0.000783 U	0.00831 U	0.00739 UJ	0.0078 UJ	NA	NA	0.000785 U	0.0486 JN	0.00839 U	NA
Heptachlor	0.51	0.12	--	mg/kg	NA	0.000416 U	0.00442 U	0.00393 UJ	0.00415 UJ	NA	NA	0.000417 U	0.00451 U	0.00446 U	NA
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	0.000644 U	0.00684 U	0.00608 UJ	0.00642 UJ	NA	NA	0.000646 U	0.00698 U	0.00691 U	NA
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	0.0418 U	0.444 U	0.395 UJ	0.417 UJ	NA	NA	0.0419 U	0.453 U	0.448 U	NA

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-119 4 - 6 09/19/14 BL-SB-119_4_6	BL-SB-119 6 - 8 09/19/14 BL-SB-119_6_8	BL-SB-119 8 - 10 09/19/14 BL-SB-119_8_10	BL-SB-120 0 - 1 09/19/14 BL-SB-120_0_1	BL-SB-120 1 - 2 09/19/14 BL-SB-120_1_2	BL-SB-120 8 - 10 09/20/14 BL-SB-120_8_10	BL-SB-121 0 - 1 09/18/14 BL-SB-121_0_1	BL-SB-121 1 - 2 09/18/14 BL-SB-121_1_2	BL-SB-121 2 - 4 09/18/14 BL-SB-121_2_4	BL-SB-121 8 - 10 09/18/14 BL-SB-121_8_10	BL-SB-122 0 - 1 09/18/14 BL-SB-122_0_1	BL-SB-122 1 - 2 09/18/14 BL-SB-122_1_2
<b>Semivolatile Organics</b>																
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.014 U	0.0135 U	0.0138 U	0.0154 U	0.0784 J	0.0196 U	NA	0.018 U	0.0906 J	0.133
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0159 U	0.0154 U	0.0158 U	0.0176 U	0.0361 U	0.0224 U	NA	0.0206 U	0.109 J	0.172
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.00996 U	0.00962 U	0.00988 U	0.011 U	0.0225 U	0.014 U	NA	0.0129 U	0.0215 U	0.0122 U
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.00897 U	0.00866 U	0.00889 U	0.00989 U	0.0203 U	0.0126 U	NA	0.0116 U	0.197	0.213
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.00964 J	0.00866 U	0.00889 U	0.00989 U	0.0878 J	0.0126 U	NA	0.0116 U	0.147	0.184
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0148 U	NA	0.0351 J	0.0144 U	0.0148 U	0.0165 U	<b>0.275</b>	0.021 U	0.0145 U	0.0193 U	<b>0.435</b>	<b>0.473</b>
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0119 U	NA	<b>0.0338 J</b>	0.0115 U	0.0119 U	0.0132 U	<b>0.291</b>	0.0168 U	0.0116 U	0.0154 U	<b>0.713</b>	<b>0.672</b>
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0119 U	NA	0.0484 J	0.0115 U	0.0119 U	0.0132 U	<b>0.41</b>	0.0168 U	0.0116 U	0.0154 U	<b>1.26</b>	<b>1.97</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.00897 U	0.00866 U	0.00889 U	0.00989 U	0.281	0.0126 U	NA	0.0116 U	1.09	0.606
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.0229 J	0.0135 U	0.0138 U	0.0154 U	0.168	0.0196 U	NA	0.018 U	0.421	0.555
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.0353 J	0.00866 U	0.00889 U	0.00989 U	0.343	0.0126 U	NA	0.0116 U	0.584	0.709
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	NA	0.00698 U	0.00673 U	0.00692 U	0.00769 U	0.0158 U	0.00981 U	NA	0.009 U	<b>0.176</b>	<b>0.209</b>
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.0647 J	0.00866 U	0.00889 U	0.00989 U	0.554	0.0474 J	NA	0.0116 U	0.635	0.364
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.012 U	0.0115 U	0.0119 U	0.0132 U	0.027 U	0.0168 U	NA	0.0154 U	0.0258 U	0.0147 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	0.00996 U	0.00962 U	0.00988 U	0.011 U	<b>0.181</b>	0.014 U	0.00966 U	0.0129 U	<b>0.754</b>	<b>0.573</b>
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.00897 U	0.00866 U	0.00889 U	0.00989 U	0.0203 U	0.0126 U	NA	0.0116 U	0.0193 U	0.138
Phenanthrene	--	--	--	mg/kg	NA	NA	0.0413 J	0.00866 U	0.00889 U	0.00989 U	0.385	0.0126 U	NA	0.0116 U	0.247	0.195
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.0569 J	0.0115 U	0.0119 U	0.0132 U	0.556	0.0168 U	NA	0.0154 U	0.668	0.537
<b>Inorganics</b>																
<b>Arsenic</b>	3	0.67	21.2	mg/kg	10.8 J	NA	9.05 J	15.8 J	13.7 J	6.61	<b>30.2 J</b>	13.7 J	12	11.3	<b>200 J</b>	<b>152 J</b>
<b>Lead</b>	800	400	--	mg/kg	NA	NA	12.2	16.5	16.3	8.08	79.3 J	1.02 J	NA	8.14	119 J	21.1 J
<b>Pesticides</b>																
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.089	0.00532 U	0.00537 U	0.000473 U	0.0419	0.000512 U	NA	0.000467 U	0.293	0.0808 J
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.107	0.00618 U	0.00625 U	0.000549 U	0.288	0.00223	NA	0.000543 U	<b>4.68 D</b>	0.741 D
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.509	0.0105 U	0.0106 U	0.00132 J	0.134 J	0.00101 U	NA	0.000924 U	<b>3.82 D</b>	1.43 D
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.00333 U	0.00383 U	0.00387 U	0.000341 U	0.00355 U	0.000369 U	NA	0.000337 U	0.00337 U	0.00378 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00215 U	0.00247 U	0.0025 U	0.00022 U	0.00229 U	0.000238 U	NA	0.000217 U	0.00638 J	0.0233 J
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.00462 U	0.00532 U	0.00537 U	0.000473 U	0.00492 U	0.000512 U	NA	0.000467 U	0.0185 U	0.00524 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00215 U	0.00247 U	0.0025 U	0.00022 U	0.00929 J	0.000238 U	NA	0.000217 U	0.108	0.185
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.39 U	0.449 U	0.453 U	0.0399 U	0.415 U	0.0432 U	NA	0.0395 U	0.394 U	0.442 U
delta-BHC	--	--	--	mg/kg	NA	NA	0.00408 U	0.0047 U	0.00475 U	0.000418 U	0.00435 U	0.000452 U	NA	0.000413 U	0.00413 U	0.00463 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	0.0112 J	0.000422 U	<b>0.0962</b>	0.00495 U	0.005 U	0.000545 J	0.0154 J	0.000476 U	NA	0.000435 U	<b>1.26 D</b>	<b>0.407</b>
Endosulfan I	--	--	--	mg/kg	NA	NA	0.00505 U	0.00581 U	0.00587 U	0.000516 U	0.00538 U	0.000559 U	NA	0.000511 U	0.0051 U	0.00573 U
Endosulfan II	--	--	--	mg/kg	NA	NA	0.00591 U	0.0068 U	0.00687 U	0.000604 U	0.00629 U	0.000654 U	NA	0.000598 U	0.00597 U	0.0067 U
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.00537 U	0.00618 U	0.00625 U	0.000549 U	0.00572 U	0.000595 U	NA	0.000543 U	0.00543 U	0.00609 U
Endrin	250	18	--	mg/kg	NA	NA	0.00462 U	0.00532 U	0.00537 U	0.000473 U	0.00492 U	0.000512 U	NA	0.000467 U	0.00467 U	0.00524 U
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.00548 U	0.00631 U	0.00637 U	0.00056 U	0.00584 U	0.000607 U	NA	0.000554 U	0.00554 U	0.00621 U
Endrin ketone	--	--	--	mg/kg	NA	NA	0.00634 U	0.0073 U	0.00737 U	0.000648 U	0.00675 U	0.000702 U	NA	0.000641 U	0.0104 J	0.00719 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00419 U	0.00482 U	0.00487 U	0.000429 U	0.00446 U	0.000464 U	NA	0.000424 U	0.00616 J	0.0224
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.00849 U	0.00977 U	0.00987 U	0.000868 U	0.00904 U	0.00094 U	NA	0.000859 U	0.0525 JN	0.00962 U
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.00451 U	0.00519 U	0.00525 U	0.000462 U	0.00481 U	0.0005 U	NA	0.000457 U	0.00456 U	0.00512 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.00698 U	0.00804 U	0.00812 U	0.000714 U	0.00744 U	0.000773 U	NA	0.000707 U	0.00706 U	0.00792 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.453 U	0.522 U	0.527 U	0.0464 U	<b>1.48</b>	0.0502 U	0.0393 U	0.0459 U	0.458 U	0.514 U

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J = estimated value  
JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification  
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Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-122 2 - 4 09/18/14 BL-SB-122_2_4	BL-SB-122 4 - 6 09/18/14 BL-SB-122_4_6	BL-SB-122 8 - 10 09/18/14 BL-SB-122_8_10	BL-SB-123 0 - 1 09/18/14 BL-SB-123_0_1	BL-SB-123 1 - 2 09/18/14 BL-SB-123_1_2	BL-SB-123 2 - 4 09/18/14 BL-SB-123_2_4	BL-SB-123 4 - 6 09/18/14 BL-SB-123_4_6	BL-SB-123 6 - 8 09/18/14 BL-SB-123_6_8	BL-SB-123 8 - 10 09/18/14 BL-SB-123_8_10	BL-SB-124 0 - 1 09/20/14 BL-SB-124_0_1	BL-SB-124 1 - 2 09/20/14 BL-SB-124_1_2	BL-SB-124 2 - 4 09/20/14 BL-SB-124_2_4
<b>Semivolatile Organics</b>																
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.0155 U	0.0344 U	0.071 J	NA	NA	NA	0.017 U	0.0849 U	0.0165 U	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0178 U	0.0393 U	0.0773 J	NA	NA	NA	0.0195 U	0.097 U	0.0188 U	NA
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.0111 U	0.0245 U	0.012 U	NA	NA	NA	0.0122 U	0.215 J	0.0118 U	NA
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.00999 U	0.0221 U	0.0108 U	NA	NA	NA	0.0109 U	0.0546 U	0.0106 U	NA
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.00999 U	0.236	0.0166 J	NA	NA	NA	0.0109 U	0.373 J	0.0106 U	NA
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0144 U	0.0145 U	0.0167 U	<b>0.892</b>	0.0389 J	0.014 U	NA	NA	0.0182 U	<b>1.14</b>	0.0177 U	0.0147 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0116 U	0.0116 U	0.0133 U	<b>1.06</b>	<b>0.0418 J</b>	0.0112 U	0.0116 U	NA	0.0146 U	<b>1.22</b>	0.0141 U	0.0117 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0116 U	0.0116 U	0.0133 U	<b>1.68</b>	0.0743 J	0.0112 U	NA	NA	0.0146 U	<b>1.76</b>	0.0402 J	0.0117 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.00999 U	1.13	0.0108 U	NA	NA	NA	0.0109 U	0.817	0.0106 U	NA
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.0155 U	0.593	0.027 J	NA	NA	NA	0.017 U	0.809	0.018 J	NA
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.00999 U	0.978	0.0428 J	NA	NA	NA	0.0109 U	1.37	0.0106 U	NA
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	0.00674 U	0.00679 U	0.00777 U	<b>0.259</b>	0.00843 U	0.00652 U	NA	NA	0.00852 U	<b>0.216 J</b>	0.00824 U	0.00685 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.00999 U	1.77	0.0522 J	NA	NA	NA	0.0109 U	3.22	0.0437 J	NA
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.0133 U	0.0295 U	0.0145 U	NA	NA	NA	0.0146 U	0.0728 U	0.0141 U	NA
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	0.00963 U	0.00969 U	0.0111 U	<b>0.884</b>	0.012 U	0.00931 U	NA	NA	0.0122 U	<b>0.661</b>	0.0118 U	0.00978 U
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.00999 U	0.0221 U	0.0108 U	NA	NA	NA	0.0109 U	0.0546 U	0.0106 U	NA
Phenanthrene	--	--	--	mg/kg	NA	NA	0.00999 U	1.05	0.081	NA	NA	NA	0.0109 U	2.3	0.0106 U	NA
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.0133 U	2.49	0.0559 J	NA	NA	NA	0.0146 U	2.54	0.0141 U	NA
<b>Inorganics</b>																
<b>Arsenic</b>	3	0.67	21.2	mg/kg	14.2	16.8	6.83	11.2 J	18.4 J	NA	NA	NA	16.4	<b>337 J</b>	<b>56.7 J</b>	<b>36</b>
<b>Lead</b>	800	400	--	mg/kg	NA	NA	6.5	27.6 J	27.9 J	NA	NA	NA	15.8	242 J	23.8 J	NA
<b>Pesticides</b>																
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.00577 J	0.00535 U	0.131 D	NA	NA	NA	0.000525 U	0.00519 U	0.000494 U	NA
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	0.00257	NA	0.0067	<b>116 DJ</b>	0.517 D	0.0113	NA	NA	0.00101 J	0.209	0.0123	NA
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	0.00397	NA	0.134 D	<b>2,740 DJ</b>	<b>2.68 D</b>	0.0504 D	0.307	NA	0.00454	0.151	0.0101	NA
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.000341 U	<b>0.0847 J</b>	0.000365 U	0.000299 U	NA	NA	0.000379 U	0.00374 U	0.000356 U	NA
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00022 U	<b>0.153 J</b>	0.0219 JN	0.000193 U	NA	NA	0.000244 U	0.00241 U	0.00023 U	NA
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.000472 U	0.00535 U	0.000507 U	NA	NA	NA	0.000525 U	0.00519 U	0.000494 U	NA
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00134 J	<b>71 DJ</b>	0.161 DJ	0.00474	NA	NA	0.0079	0.00241 U	0.00023 U	NA
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.0399 U	45.3 DJ	0.132	NA	NA	NA	0.0443 U	0.438 U	0.0417 U	NA
delta-BHC	--	--	--	mg/kg	NA	NA	0.000418 U	0.16 J	0.002 U	NA	NA	NA	0.000464 U	0.00458 U	0.000436 U	NA
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	0.00145 J	0.00658	0.000694 J	<b>73.5 DJ</b>	<b>0.262 D</b>	0.00747	<b>0.0385</b>	<b>0.0739</b>	0.000489 U	0.0205 U	0.000459 U	NA
Endosulfan I	--	--	--	mg/kg	NA	NA	0.000516 U	0.375 JN	0.000554 U	NA	NA	NA	0.000574 U	0.00567 U	0.000539 U	NA
Endosulfan II	--	--	--	mg/kg	NA	NA	0.000604 U	0.00684 U	0.000648 U	NA	NA	NA	0.000672 U	0.00663 U	0.000631 U	NA
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.000549 U	0.00622 U	0.00059 U	NA	NA	NA	0.000611 U	0.00603 U	0.000574 U	NA
Endrin	250	18	--	mg/kg	NA	NA	0.000472 U	0.0535 U	0.0132	NA	NA	NA	0.000525 U	0.00519 U	0.000494 U	NA
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.00056 U	0.00634 U	0.000601 U	NA	NA	NA	0.000623 U	0.00615 U	0.000585 U	NA
Endrin ketone	--	--	--	mg/kg	NA	NA	0.000648 U	1.14 DJ	0.00692	NA	NA	NA	0.000721 U	0.00712 U	0.000677 U	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.000429 U	0.12 J	0.014 JN	NA	NA	NA	0.000476 U	0.0047 U	0.000448 U	NA
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.000868 U	4.42 JN	0.0296	NA	NA	NA	0.000965 U	0.00953 U	0.000907 U	NA
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.000461 U	0.00522 U	0.000495 U	NA	NA	NA	0.000513 U	0.00507 U	0.000482 U	NA
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.000714 U	<b>0.244 JN</b>	0.000766 U	0.000626 U	NA	NA	0.000794 U	0.00784 U	0.000746 U	NA
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.0464 U	0.525 U	0.0498 U	NA	NA	NA	0.0516 U	0.509 U	0.0484 U	NA

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Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-124 4 - 6 09/20/14 BL-SB-124_4_6	BL-SB-124 6 - 8 09/20/14 BL-SB-124_6_8	BL-SB-124 8 - 10 09/20/14 BL-SB-124_8_10	BL-SB-125 0 - 1 09/19/14 BL-SB-125_0_1	BL-SB-126 0 - 1 09/18/14 BL-SB-126_0_1	BL-SB-126R 0 - 1 09/29/14 BL-SB-126R_0_1	BL-SB-126R 1 - 2 09/29/14 BL-SB-126R_1_2	BL-SB-126R 2 - 4 09/29/14 BL-SB-126R_2_4	BL-SB-126R 4 - 6 09/30/14 BL-SB-126R_4_6	BL-SB-126R 6 - 8 09/30/14 BL-SB-126R_6_8	BL-SB-126R 8 - 10 09/30/14 BL-SB-126R_8_10
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.0148 U	0.177 J	0.0144 U	0.0333 U	0.0153 U	0.0139 U	0.0139 U	0.0139 U	0.014 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0169 U	0.24 J	0.0165 U	0.038 U	0.0175 U	0.0159 U	0.0159 U	0.0158 U	0.016 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.0106 U	0.366	0.0103 U	0.0238 U	0.0109 U	0.00995 U	0.00994 U	0.0099 U	0.00999 U
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.0095 U	2.56	0.00928 U	0.0214 U	0.00982 U	0.00895 U	0.00895 U	0.00891 U	0.00899 U
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.0095 U	5.08	0.086	0.0214 U	0.0209 J	0.00895 U	0.00895 U	0.00891 U	0.00899 U
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0378 J	<b>8.73</b>	<b>0.425</b>	<b>0.165</b>	0.079	0.0149 U	0.0149 U	0.0148 U	0.015 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	NA	NA	0.0127 U	<b>9.18</b>	<b>0.429</b>	<b>0.226</b>	<b>0.0815</b>	0.0119 U	0.0119 U	0.0119 U	0.012 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0631 J	<b>16.2</b>	<b>0.655</b>	<b>0.397</b>	0.13	0.0119 U	0.0119 U	0.0119 U	0.012 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.0095 U	5.78	0.368	0.158 J	0.0613 J	0.00895 U	0.00895 U	0.00891 U	0.00899 U
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.0148 U	<b>6.13</b>	0.26	0.155 J	0.0413 J	0.0139 U	0.0139 U	0.0139 U	0.014 U
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.0448 J	9.99	0.447	0.187	0.0878	0.00895 U	0.00895 U	0.00891 U	0.00899 U
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	NA	0.00739 U	<b>1.87</b>	<b>0.0876</b>	0.0166 U	0.00764 U	0.00696 U	0.00696 U	0.00693 U	0.00699 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.0746	13.8	0.857	0.284	0.164	0.00895 U	0.00895 U	0.00891 U	0.00899 U
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.0127 U	0.572	0.0124 U	0.0285 U	0.0131 U	0.0119 U	0.0119 U	0.0119 U	0.012 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0106 U	<b>5.91</b>	<b>0.294</b>	0.138 J	0.0525 J	0.00995 U	0.00994 U	0.0099 U	0.00999 U
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.0095 U	0.175 J	0.00928 U	0.0214 U	0.00982 U	0.00895 U	0.00895 U	0.00891 U	0.00899 U
Phenanthrene	--	--	--	mg/kg	NA	NA	0.0095 U	7.2	0.414	0.139 J	0.1	0.00895 U	0.00895 U	0.00891 U	0.00899 U
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.0697 J	12.4	0.834	0.921	0.159	0.0119 U	0.0119 U	0.0119 U	0.012 U
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	<b>23</b>	5.02	6.6	14.4 J	14.7 J	<b>36.1</b>	<b>79.6</b>	<b>26.1</b>	9.43	14.8	17.2
<b>Lead</b>	800	400	--	mg/kg	NA	0.518 U	6.75	14	12.6 J	68.5 J	31.8	24.3	18.3	13.3	15.9
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.000452 U	0.0649	0.104	<b>177 DJ</b>	1.54 DJ	0.152 D	0.00889	0.000411 U	0.000409 U
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.00198	0.171	0.667 D	<b>34.1 DJ</b>	0.999 DJ	0.096 D	0.0163	0.000477 U	0.000475 U
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.00197	0.295	0.653 D	<b>1,390 DJ</b>	<b>17.8 DJ</b>	<b>4.14 D</b>	0.12 D	0.00319	0.000808 U
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.000326 U	0.00363 U	0.00322 U	0.0375 UJ	0.0033 UJ	0.000301 U	0.000309 U	0.000296 U	0.000295 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00021 U	0.00234 U	0.00208 U	0.206 UJ	0.00213 UJ	0.00569	0.0002 U	0.000191 U	0.00019 U
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.000452 U	0.00504 U	0.00447 U	0.0521 UJ	0.00458 UJ	0.000418 U	0.000429 U	0.000411 U	0.000409 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00021 U	0.00234 U	0.00208 U	<b>16.2 DJ</b>	<b>0.657 DJ</b>	0.0935 D	0.00861	0.00502	0.00232 J
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.0382 U	0.426 U	0.377 U	4.4 UJ	0.387 UJ	0.0853	0.0362 U	0.0347 U	0.0345 U
delta-BHC	--	--	--	mg/kg	NA	NA	0.0004 U	0.00445 U	0.00395 U	0.046 UJ	0.00405 UJ	0.00037 U	0.000379 U	0.000363 U	0.000361 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	0.000421 U	<b>0.0504</b>	<b>0.0616</b>	<b>7.56 DJ</b>	<b>0.258 JN</b>	<b>0.0496 D</b>	0.00909	0.000382 U	0.00038 U
Endosulfan I	--	--	--	mg/kg	NA	NA	0.000494 U	0.00551 U	0.00488 U	0.0569 UJ	0.00501 UJ	0.000457 U	0.000469 U	0.000449 U	0.000447 U
Endosulfan II	--	--	--	mg/kg	NA	NA	0.000578 U	0.00645 U	0.00571 U	0.0666 UJ	0.00586 UJ	0.000535 U	0.000549 U	0.000525 U	0.000523 U
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.000526 U	0.0153 J	0.00519 U	0.0605 UJ	0.00533 UJ	0.000486 U	0.000499 U	0.000477 U	0.000475 U
Endrin	250	18	--	mg/kg	NA	NA	0.000452 U	0.00504 UJ	0.00447 U	0.0521 UJ	0.00458 UJ	0.000418 U	0.000429 U	0.000411 U	0.000409 U
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.000536 U	0.00598 U	0.0053 U	0.0618 UJ	0.00544 UJ	0.000496 U	0.000509 U	0.000487 U	0.000485 U
Endrin ketone	--	--	--	mg/kg	NA	NA	0.00062 U	0.00692 U	0.00613 U	0.0714 UJ	0.00629 UJ	0.000574 U	0.000589 U	0.000563 U	0.000561 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00041 U	0.00457 U	0.00405 U	0.0619 J	0.0416 UJ	0.00188 JN	0.000389 U	0.000372 U	0.000371 U
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.000831 U	0.00926 U	0.00821 U	0.0957 UJ	0.00842 UJ	0.0301	0.000789 U	0.000754 U	0.000751 U
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.000442 U	0.00492 U	0.00436 U	0.0509 UJ	0.00448 UJ	0.000408 U	0.000419 U	0.000401 U	0.000399 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.000684 U	0.00762 U	0.00675 U	0.0787 UJ	0.00693 UJ	0.000632 U	0.000649 U	0.000621 U	0.000618 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.0444 U	0.495 U	0.438 U	5.11 UJ	0.45 UJ	0.041 U	0.0421 U	0.0403 U	0.0401 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-126R 10 - 12 09/30/14 BL-SB-126R_10_12	BL-SB-126R 12 - 14 09/30/14 BL-SB-126R_12_14	BL-SB-126R 14 - 16 09/30/14 BL-SB-126R_14_16	BL-SB-127 0 - 1 09/21/14 BL-SB-127_0_1	BL-SB-127 1 - 2 09/21/14 BL-SB-127_1_2	BL-SB-127 8 - 10 09/21/14 BL-SB-127_8_10	BL-SB-128 0 - 1 09/21/14 BL-SB-128_0_1	BL-SB-128 1 - 2 09/21/14 BL-SB-128_1_2	BL-SB-128 8 - 10 09/21/14 BL-SB-128_8_10	BL-SB-129 0 - 1 09/21/14 BL-SB-129_0_1	BL-SB-129 1 - 2 09/21/14 BL-SB-129_1_2
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0139 U	0.0139 U	0.0139 U	0.0157 U	0.0163 U	0.017 U	0.0155 U	0.0163 U	0.0162 U	0.015 U	0.0152 U
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0159 U	0.0159 U	0.0159 U	0.018 U	0.0186 U	0.0194 U	0.0177 U	0.0187 U	0.0186 U	0.0172 U	0.0174 U
Acenaphthene	45,000	3,500	--	mg/kg	0.00996 U	0.00994 U	0.00991 U	0.0112 U	0.0116 U	0.0122 U	0.0111 U	0.0117 U	0.0116 U	0.0107 U	0.0109 U
Acenaphthylene	--	--	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
Anthracene	230,000	17,000	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0149 U	0.0149 U	0.0149 U	0.0168 U	0.0174 U	0.0182 U	0.0166 U	0.0175 U	0.0174 U	0.0161 U	0.0163 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0119 U	0.0119 U	0.0119 U	0.0135 U	0.0139 U	0.0146 U	0.0133 U	0.014 U	0.0139 U	0.0129 U	0.013 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0119 U	0.0119 U	0.0119 U	0.0135 U	0.0139 U	0.0146 U	0.0133 U	0.014 U	0.0139 U	0.0129 U	0.013 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	0.0139 U	0.0139 U	0.0139 U	0.0157 U	0.0163 U	0.017 U	0.0155 U	0.0163 U	0.0162 U	0.015 U	0.0152 U
<b>Chrysene</b>	290	15	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	0.00697 U	0.00696 U	0.00694 U	0.00786 U	0.00814 U	0.00851 U	0.00776 U	0.00817 U	0.00812 U	0.00751 U	0.00761 U
Fluoranthene	30,000	2,300	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
Fluorene	30,000	2,300	--	mg/kg	0.0119 U	0.0119 U	0.0119 U	0.0135 U	0.0139 U	0.0146 U	0.0133 U	0.014 U	0.0139 U	0.0129 U	0.013 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	0.00996 U	0.00994 U	0.00991 U	0.0112 U	0.0116 U	0.0122 U	0.0111 U	0.0117 U	0.0116 U	0.0107 U	0.0109 U
Naphthalene	17	3.8	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
Phenanthrene	--	--	--	mg/kg	0.00896 U	0.00895 U	0.00892 U	0.0101 U	0.0105 U	0.0109 U	0.00998 U	0.0105 U	0.0104 U	0.00965 U	0.00978 U
Pyrene	23,000	1,700	--	mg/kg	0.0119 U	0.0119 U	0.0119 U	0.0135 U	0.0139 U	0.0146 U	0.0133 U	0.014 U	0.0139 U	0.0129 U	0.013 U
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	14.1	14.4	10.1	10.7 J	8.88 J	17.1	10.5 J	6.33 J	16.7	7.04 J	9.95 J
<b>Lead</b>	800	400	--	mg/kg	12.3	11.5	8.95	27.9 J	19.6 J	19.3	17.6 J	19 J	17.4	23.2 J	32.6 J
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	0.000416 U	0.00122 J	0.000422 U	0.000404 U	0.00036 U	0.000409 U	0.00425 U	0.000406 U	0.000405 U	0.0865	0.00057 J
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	0.000483 U	0.00351	0.000491 U	0.00047 U	0.000418 U	0.000475 U	0.00494 U	0.000472 U	0.000471 U	0.227 D	0.000888 J
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	0.000821 U	0.025	0.0012 J	0.000799 U	0.000711 U	0.000808 U	0.0084 U	0.00161 U	0.000801 U	0.991 D	0.00819
<b>Aldrin</b>	0.14	0.031	--	mg/kg	0.0003 U	0.000306 U	0.000304 U	0.000291 U	0.000259 U	0.000295 U	0.00306 U	0.000293 U	0.000292 U	0.00102 U	0.000279 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	0.000193 U	0.000197 U	0.000196 U	0.000188 U	0.000167 U	0.00019 U	0.00198 U	0.000189 U	0.000189 U	0.00364 J	0.00018 U
alpha-Chlordane	--	--	--	mg/kg	0.000416 U	0.000424 U	0.000422 U	0.000404 U	0.00036 U	0.000409 U	0.00425 U	0.000406 U	0.000405 U	0.0108 J	0.000387 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	0.00314 J	0.00355	0.00712	0.000188 U	0.000167 U	0.00019 U	0.00198 U	0.000189 U	0.00115 J	0.0363	0.00018 U
Chlordane (technical)	--	--	--	mg/kg	0.0351 U	0.0358 U	0.0356 U	0.0341 U	0.0304 U	0.0345 U	0.359 U	0.0343 U	0.0342 U	0.119 U	0.0327 U
delta-BHC	--	--	--	mg/kg	0.000367 U	0.000374 U	0.000373 U	0.000357 U	0.000318 U	0.000361 U	0.00375 U	0.000359 U	0.000358 U	0.00125 U	0.000342 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	0.000745 J	0.000786 J	0.000393 U	0.000376 U	0.000335 U	0.00038 U	0.00395 U	0.000378 U	0.000377 U	<b>0.118</b>	0.00036 U
Endosulfan I	--	--	--	mg/kg	0.000454 U	0.000463 U	0.000461 U	0.000442 U	0.000393 U	0.000447 U	0.00464 U	0.000444 U	0.000443 U	0.00154 U	0.000423 U
Endosulfan II	--	--	--	mg/kg	0.000532 U	0.000542 U	0.00054 U	0.000517 U	0.00046 U	0.000523 U	0.00543 U	0.000519 U	0.000518 U	0.0018 U	0.000495 U
Endosulfan sulfate	--	--	--	mg/kg	0.000483 U	0.000493 U	0.000491 U	0.00047 U	0.000418 U	0.000475 U	0.00494 U	0.000472 U	0.000471 U	0.00164 U	0.00045 U
Endrin	250	18	--	mg/kg	0.000416 U	0.000424 U	0.000422 U	0.000404 U	0.00036 U	0.000409 U	0.00425 U	0.000406 U	0.000405 U	0.00141 U	0.000387 U
Endrin aldehyde	--	--	--	mg/kg	0.000493 U	0.000503 U	0.000501 U	0.00048 U	0.000427 U	0.000485 U	0.00504 U	0.000482 U	0.000481 U	0.00167 U	0.000459 U
Endrin ketone	--	--	--	mg/kg	0.00057 U	0.000581 U	0.000579 U	0.000555 U	0.000494 U	0.000561 U	0.00583 U	0.000557 U	0.000556 U	0.00193 U	0.000532 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.000377 U	0.000384 U	0.000383 U	0.000367 U	0.000326 U	0.000371 U	0.00385 U	0.000368 U	0.000368 U	0.00969	0.000351 U
gamma-Chlordane	--	--	--	mg/kg	0.000763 U	0.000779 U	0.000775 U	0.000743 U	0.000661 U	0.000751 U	0.0078 U	0.000746 U	0.000745 U	0.0183 J	0.000712 U
Heptachlor	0.51	0.12	--	mg/kg	0.000406 U	0.000414 U	0.000412 U	0.000395 U	0.000351 U	0.000399 U	0.00415 U	0.000397 U	0.000396 U	0.00138 U	0.000378 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	0.000628 U	0.000641 U	0.000638 U	0.000611 U	0.000544 U	0.000618 U	0.00642 U	0.000614 U	0.000613 U	0.00213 U	0.000586 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	0.0408 U	0.0416 U	0.0414 U	0.0397 U	0.0353 U	0.0401 U	0.417 U	0.0399 U	0.0398 U	0.138 U	0.038 U

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**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-129 2 - 4 09/21/14 BL-SB-129_2_4	BL-SB-129 8 - 10 09/21/14 BL-SB-129_8_10	BL-SB-130 0 - 1 09/18/14 BL-SB-130_0_1	BL-SB-131 0 - 1 09/18/14 BL-SB-131_0_1	BL-SB-132 0 - 1 09/18/14 BL-SB-132_0_1	BL-SB-132 1 - 2 09/18/14 BL-SB-132_1_2	BL-SB-132 2 - 4 09/18/14 BL-SB-132_2_4	BL-SB-133 0 - 1 09/18/14 BL-SB-133_0_1	BL-SB-133 1 - 2 09/18/14 BL-SB-133_1_2	BL-SB-133 2 - 4 09/18/14 BL-SB-133_2_4	BL-SB-133 4 - 6 09/18/14 BL-SB-133_4_6	BL-SB-133 8 - 10 09/18/14 BL-SB-133_8_10
<b>Semivolatile Organics</b>																
1-methyl-Naphthalene	73	17	--	mg/kg	NA	0.0157 U	0.0146 U	0.61	0.016 U	0.016 U	NA	0.0976 J	0.0163 U	NA	NA	0.0153 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	0.018 U	0.0167 U	0.897	0.0183 U	0.0183 U	NA	0.12 J	0.0187 U	NA	NA	0.0175 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	0.0112 U	0.0104 U	2.51	0.0114 U	0.0114 U	NA	0.0234 U	0.0117 U	NA	NA	0.0109 U
Acenaphthylene	--	--	--	mg/kg	NA	0.0101 U	0.00937 U	0.0203 U	0.0103 U	0.0103 U	NA	0.0315 J	0.0105 U	NA	NA	0.00982 U
Anthracene	230,000	17,000	--	mg/kg	NA	0.0101 U	0.0515 J	4.58	0.0339 J	0.0103 U	NA	0.0268 J	0.0105 U	NA	NA	0.00982 U
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	0.0169 U	<b>0.151</b>	<b>7</b>	<b>0.185</b>	0.0171 U	0.0147 U	<b>0.162</b>	0.0175 U	0.0148 U	NA	0.0164 U
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	NA	0.0135 U	<b>0.139</b>	<b>5.62</b>	<b>0.195</b>	0.0137 U	0.0118 U	<b>0.446</b>	0.014 U	0.0118 U	NA	0.0131 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	0.0135 U	<b>0.202</b>	<b>8.52 D</b>	<b>0.296</b>	0.0137 U	0.0118 U	<b>0.691</b>	0.014 U	0.0118 U	NA	0.0131 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	0.0101 U	0.112	3.53	0.132	0.0103 U	NA	0.806	0.0105 U	NA	NA	0.00982 U
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	0.0157 U	0.084	<b>2.92</b>	0.119	0.016 U	NA	0.281	0.0163 U	NA	NA	0.0153 U
<b>Chrysene</b>	290	15	--	mg/kg	NA	0.0101 U	0.164	<b>7</b>	0.224	0.0103 U	NA	0.244	0.0105 U	NA	NA	0.00982 U
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	0.00787 U	0.00729 U	<b>1.03</b>	0.008 U	0.008 U	NA	<b>0.199</b>	0.00817 U	0.00689 U	NA	0.00764 U
Fluoranthene	30,000	2,300	--	mg/kg	NA	0.0101 U	0.341	19.8 D	0.321	0.0103 U	NA	0.259	0.0105 U	NA	NA	0.00982 U
Fluorene	30,000	2,300	--	mg/kg	NA	0.0135 U	0.0125 U	<b>2.8</b>	0.0137 U	0.0137 U	NA	0.0281 U	0.014 U	NA	NA	0.0131 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	0.0112 U	0.0878	<b>3.15</b>	0.115	0.0114 U	NA	<b>0.585</b>	0.0117 U	0.00985 U	NA	0.0109 U
Naphthalene	17	3.8	--	mg/kg	NA	0.0101 U	0.00937 U	2.05	0.0103 U	0.0103 U	NA	0.102 J	0.0105 U	NA	NA	0.00982 U
Phenanthrene	--	--	--	mg/kg	NA	0.0101 U	0.237	20.6 D	0.151	0.0103 U	NA	0.145 J	0.0105 U	NA	NA	0.00982 U
Pyrene	23,000	1,700	--	mg/kg	NA	0.0135 U	0.343	15.6 D	0.346	0.0381 J	NA	0.267	0.014 U	NA	NA	0.0131 U
<b>Inorganics</b>																
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	15	9.13 J	13 J	16.5 J	7.12 J	NA	16.8 J	<b>58.1 J</b>	16.1	12.8	11.2
<b>Lead</b>	800	400	--	mg/kg	NA	17.4	29.4 J	14.3 J	44.2 J	9.55 J	NA	23 J	40.3 J	NA	NA	9.14
<b>Pesticides</b>																
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	0.000415 U	<b>3.44 D</b>	<b>3.56 D</b>	0.00194 U	0.00252	NA	0.0129 J	0.000509 U	NA	NA	0.000483 U
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	0.000482 U	<b>3.07 D</b>	1.08 D	0.119 D	0.0289	NA	0.259	0.0022	NA	NA	0.000561 U
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	0.00421	<b>72.9 D</b>	<b>9.67 D</b>	0.0393	0.0219 J	NA	0.225	0.00201 U	NA	NA	0.000955 U
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	0.000299 U	0.000322 U	0.00354 U	0.000355 U	0.000352 U	NA	0.00364 U	0.000367 U	NA	NA	0.000348 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	0.000193 U	0.0208 U	0.063	0.000229 U	0.000227 U	NA	0.00235 U	0.000237 U	NA	NA	0.000225 U
alpha-Chlordane	--	--	--	mg/kg	NA	0.000415 U	0.000447 U	0.0049 U	0.000492 U	0.000488 U	NA	0.00505 U	0.000509 U	NA	NA	0.000483 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	0.000193 U	<b>0.636 D</b>	0.188	0.000229 U	0.00189 J	NA	0.0788	0.000237 U	NA	NA	0.000225 U
Chlordane (technical)	--	--	--	mg/kg	NA	0.035 U	3.77 U	0.414 U	0.0415 U	0.0412 U	NA	0.426 U	0.0429 U	NA	NA	0.0408 U
delta-BHC	--	--	--	mg/kg	NA	0.000367 U	0.000395 U	0.00433 U	0.000435 U	0.000431 U	NA	0.00446 U	0.00045 U	NA	NA	0.000427 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	0.0168	0.000386 U	<b>0.402 D</b>	<b>0.272</b>	0.00194 U	0.00193 U	NA	<b>0.0396</b>	0.000473 U	0.000387 U	NA	0.000449 U
Endosulfan I	--	--	--	mg/kg	NA	0.000453 U	0.000489 U	0.00536 U	0.000538 U	0.000533 U	NA	0.00552 U	0.000556 U	NA	NA	0.000528 U
Endosulfan II	--	--	--	mg/kg	NA	0.000531 U	0.000572 U	0.00627 U	0.000629 U	0.000624 U	NA	0.00646 U	0.000651 U	NA	NA	0.000618 U
Endosulfan sulfate	--	--	--	mg/kg	NA	0.000482 U	0.00052 U	0.0057 U	0.000572 U	0.000567 U	NA	0.00587 U	0.000592 U	NA	NA	0.000561 U
Endrin	250	18	--	mg/kg	NA	0.000415 U	0.000447 U	0.0049 U	0.000492 U	0.000488 U	NA	0.00505 U	0.000509 U	NA	NA	0.000483 U
Endrin aldehyde	--	--	--	mg/kg	NA	0.000492 U	0.00053 U	0.00582 U	0.000583 U	0.000578 U	NA	0.00599 U	0.000603 U	NA	NA	0.000573 U
Endrin ketone	--	--	--	mg/kg	NA	0.000569 U	0.000613 U	0.00673 U	0.000675 U	0.000669 U	NA	0.00693 U	0.000698 U	NA	NA	0.000663 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	0.000376 U	0.0406 U	0.00445 U	0.000446 U	0.000442 U	NA	0.00458 U	0.000461 U	NA	NA	0.000438 U
gamma-Chlordane	--	--	--	mg/kg	NA	0.000762 U	0.248 D	0.0454 JN	0.000903 U	0.000896 U	NA	0.00927 U	0.000935 U	NA	NA	0.000887 U
Heptachlor	0.51	0.12	--	mg/kg	NA	0.000405 U	0.000437 U	0.00479 U	0.00048 U	0.000476 U	NA	0.00493 U	0.000497 U	NA	NA	0.000472 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	0.000627 U	0.000676 U	0.00741 U	0.000743 U	0.000737 U	NA	0.00763 U	0.000769 U	NA	NA	0.00073 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	0.0407 U	0.0439 U	0.481 U	0.0483 U	0.0479 U	NA	0.495 U	0.0499 U	NA	NA	0.0474 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-134 0 - 1 09/21/14 BL-SB-134_0_1	BL-SB-134 1 - 2 09/21/14 BL-SB-134_1_2	BL-SB-134 2 - 4 09/21/14 BL-SB-134_2_4	BL-SB-134 8 - 10 09/21/14 BL-SB-134_8_10	BL-SB-135 0 - 1 09/18/14 BL-SB-135_0_1	BL-SB-135 1 - 2 09/18/14 BL-SB-135_1_2	BL-SB-135 2 - 4 09/18/14 BL-SB-135_2_4	BL-SB-135 4 - 6 09/18/14 BL-SB-135_4_6	BL-SB-135 8 - 10 09/18/14 BL-SB-135_8_10	BL-SB-136 0 - 1 09/18/14 BL-SB-136_0_1	BL-SB-136 1 - 2 09/18/14 BL-SB-136_1_2
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0155 U	0.0161 U [0.0161 U]	NA	0.0155 U	0.209	0.516	NA	NA	0.0157 U	0.0625 J	0.0155 U [0.0187]
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0177 U	0.0184 U [0.0184 U]	NA	0.0177 U	0.248	0.658	NA	NA	0.0179 U	0.0761	0.0177 U [0.0214]
Acenaphthene	45,000	3,500	--	mg/kg	0.011 U	0.0115 U [0.0115 U]	NA	0.0111 U	0.0112 U	0.012 U	NA	NA	0.0112 U	0.0113 U	0.0111 U [0.0134]
Acenaphthylene	--	--	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.0101 U	0.0108 U	NA	NA	0.0101 U	0.0101 U	0.00995 U [0.012]
Anthracene	230,000	17,000	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.086	0.185 J	NA	NA	0.0101 U	0.0196 J	0.00998 J [0.012]
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0166 U	0.0172 U [0.0173 U]	NA	0.0166 U	<b>0.342</b>	0.0808	0.0149 U	NA	0.0168 U	0.0437 J	0.0607 J [0.0201]
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0133 U	0.0138 U [0.0138 U]	NA	0.0133 U	<b>0.314</b>	<b>0.0699 J</b>	0.0119 U	0.0117 U	0.0134 U	<b>0.0445 J</b>	<b>0.0873 [0.016 U]</b>
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.0133 U	0.0138 U [0.0138 U]	NA	0.0133 U	<b>0.479</b>	0.106	0.0119 U	NA	0.0134 U	0.0892	0.0932 [0.016 U]
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.233	0.0552 J	NA	NA	0.0101 U	0.0101 U	0.0545 J [0.012 U]
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0155 U	0.0161 U [0.0161 U]	NA	0.0155 U	0.191	0.0359 J	NA	NA	0.0157 U	0.0346 J	0.0394 J [0.0187]
Chrysene	290	15	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.365	0.0867	NA	NA	0.0101 U	0.0595 J	0.0634 J [0.012 U]
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.00773 U	0.00803 U [0.00805 U]	NA	0.00774 U	<b>0.0453 J</b>	0.00839 U	0.00695 U	NA	0.00783 U	0.00788 U	0.00774 U
Fluoranthene	30,000	2,300	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.701	0.132	NA	NA	0.0101 U	0.0604 J	0.0746 [0.012 U]
Fluorene	30,000	2,300	--	mg/kg	0.0133 U	0.0138 U [0.0138 U]	NA	0.0133 U	0.0134 U	0.0144 U	NA	NA	0.0134 U	0.0135 U	0.0133 U [0.016 U]
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.011 U	0.0115 U [0.0115 U]	NA	0.0111 U	<b>0.193</b>	0.0404 J	0.00992 U	NA	0.0112 U	0.0113 U	0.043 J [0.0134 U]
Naphthalene	17	3.8	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.15	0.483	NA	NA	0.0101 U	0.0101 U	0.00995 U [0.012]
Phenanthrene	--	--	--	mg/kg	0.00994 U	0.0103 U [0.0104 U]	NA	0.00995 U	0.501	0.303	NA	NA	0.0101 U	0.078	0.0463 J [0.012 U]
Pyrene	23,000	1,700	--	mg/kg	0.0133 U	0.0138 U [0.0138 U]	NA	0.0133 U	0.664	0.134	NA	NA	0.0134 U	0.0664 J	0.092 [0.016 U]
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	8.83 J	8.33 J [8.72]	NA	12.1	<b>30.7 J</b>	<b>31.1 J</b>	14.4	8.18	9.02	13.3 J	11.7 J [11.3 J]
Lead	800	400	--	mg/kg	21.8 J	38.9 J [54.9]	NA	14.3	61 J	64.3 J	NA	NA	8.52	25.7 J	38.5 J [44.8 J]
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.0137 J	0.00151 U [0.00167 U]	NA	0.000427 U	0.044	0.1 DJ	NA	NA	0.00049 U	0.0377	0.000872 J
4,4'-DDE	6.8	1.6	--	mg/kg	0.199 D	0.00766 [0.00722]	NA	0.000496 U	0.944 D	<b>2.32 D</b>	0.0011 J	0.000487 U	0.000938 J	0.866 D	0.0103 J [0.00378]
4,4'-DDT	8.6	1.9	--	mg/kg	0.107 D	0.0059 J [0.00601]	NA	0.000844 U	0.459 J	1.35 D	NA	NA	0.0026	0.109	0.00248 JN
Aldrin	0.14	0.031	--	mg/kg	0.000305 U	0.000276 U [0.000305 U]	NA	0.000308 U	0.00352 U	0.000379 U	NA	NA	0.000353 U	0.0035 U	0.000348 U
alpha-BHC	0.37	0.085	--	mg/kg	0.000197 U	0.000178 U [0.000196 U]	NA	0.000199 U	0.00227 U	0.071 D	NA	NA	0.000228 U	0.00226 U	0.000225 U
alpha-Chlordane	--	--	--	mg/kg	0.00167 U	0.000382 U [0.000422 U]	NA	0.000427 U	0.00488 U	0.0205 JN	NA	NA	0.00049 U	0.00485 U	0.000483 U
beta-BHC	1.3	0.3	--	mg/kg	0.00326 JN	0.000178 U [0.000196 U]	NA	0.000367 J	0.00227 U	<b>0.485 D</b>	0.0106	0.000195 U	0.000228 U	0.00493 J	0.000671 J
Chlordane (technical)	--	--	--	mg/kg	0.0357 U	0.0323 U [0.0357 U]	NA	0.036 U	0.412 U	0.444 U	NA	NA	0.0414 U	0.41 U	0.0408 U [0.0413]
delta-BHC	--	--	--	mg/kg	0.000374 U	0.000338 U [0.000373 U]	NA	0.000377 U	0.00431 U	0.0138	NA	NA	0.000433 U	0.00429 U	0.000427 U
Dieldrin	0.14	0.033	--	mg/kg	<b>0.0446</b>	0.0016 [0.00155 J]	0.000397 U	0.000527 J	<b>0.041</b>	<b>0.215 D</b>	0.000392 U	0.00039 U	0.000456 U	0.0244	0.000679 J
Endosulfan I	--	--	--	mg/kg	0.000463 U	0.000418 U [0.000462 U]	NA	0.000466 U	0.00534 U	0.000575 U	NA	NA	0.000535 U	0.00531 U	0.000528 U
Endosulfan II	--	--	--	mg/kg	0.000541 U	0.000489 U [0.00054 U]	NA	0.000546 U	0.00625 U	0.000672 U	NA	NA	0.000627 U	0.00621 U	0.000617 U
Endosulfan sulfate	--	--	--	mg/kg	0.000492 U	0.000444 U [0.000491 U]	NA	0.000496 U	0.00568 U	0.000611 U	NA	NA	0.00057 U	0.00565 U	0.000561 U
Endrin	250	18	--	mg/kg	0.000423 U	0.000382 U [0.000422 U]	NA	0.000427 U	0.00488 U	0.000526 U	NA	NA	0.00049 U	0.00485 U	0.000483 U
Endrin aldehyde	--	--	--	mg/kg	0.000502 U	0.000453 U [0.000501 U]	NA	0.000506 U	0.00579 U	0.000624 U	NA	NA	0.000581 U	0.00576 U	0.000573 U
Endrin ketone	--	--	--	mg/kg	0.000581 U	0.000524 U [0.00058 U]	NA	0.000586 U	0.0067 U	0.0057	NA	NA	0.000672 U	0.00666 U	0.000662 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.000384 U	0.000347 U [0.000383 U]	NA	0.000387 U	0.00443 U	0.0354	NA	NA	0.000444 U	0.0044 U	0.000438 U
gamma-Chlordane	--	--	--	mg/kg	0.000778 U	0.000702 U [0.000776 U]	NA	0.000784 U	0.00897 U	0.0611	NA	NA	0.0009 U	0.00892 U	0.000887 U
Heptachlor	0.51	0.12	--	mg/kg	0.000413 U	0.000373 U [0.000413 U]	NA	0.000417 U	0.00477 U	0.000513 U	NA	NA	0.000479 U	0.00474 U	0.000471 U
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.00064 U	0.000578 U [0.000639 U]	NA	0.000645 U	0.00738 U	0.000795 U	NA	NA	0.000741 U	0.00734 U	0.00073 U
Toxaphene	2.1	0.48	--	mg/kg	0.0415 U	0.0375 U [0.0415 U]	NA	0.0419 U	0.479 U	0.0516 U	NA	NA	0.0481 U	0.476 U	0.0474 U [0.048 U]

**Notes:**

- mg/kg = milligrams per kilogram
- USEPA = United States Environmental Protection Agency
- RSL = Regional Screening Level
- 1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).
- 2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)
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- 4. Duplicate concentrations are presented in brackets.
- Data Qualifiers:**
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- J = estimated value
- JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier
- R = - Data was rejected
- U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-136 2 - 4 09/18/14 BL-SB-136_2_4	BL-SB-136 4 - 6 09/18/14 BL-SB-136_4_6	BL-SB-137 0 - 1 09/17/14 BL-SB-137_0_1	BL-SB-137 1 - 2 09/17/14 BL-SB-137_1_2	BL-SB-137 2 - 4 09/17/14 BL-SB-137_2_4	BL-SB-137 8 - 10 09/17/14 BL-SB-137_8_10	BL-SB-138 0 - 1 09/17/14 BL-SB-138_0_1	BL-SB-139 0 - 1 09/16/14 BL-SB-139_0_1	BL-SB-139 1 - 2 09/16/14 BL-SB-139_1_2	BL-SB-140 0 - 1 09/16/14 BL-SB-140_0_1	BL-SB-140 1 - 2 09/16/14 BL-SB-140_1_2	BL-SB-141 0 - 1 09/17/14 BL-SB-141_0_1
<b>Semivolatile Organics</b>																
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.0134 U	0.0137 U [0.0137]	NA	0.0138 U	0.0218 J	0.0139 U	0.0139 U	0.0135 U	0.014 U	0.036 J
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0153 U	0.0156 U [0.0157]	NA	0.0158 U	0.0228 J	0.0158 U	0.0159 U	0.0154 U	0.016 U	0.0432 J
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.00957 U	0.00975 U [0.0098]	NA	0.00985 U	0.00959 U	0.0099 U	0.00995 U	0.00961 U	0.00999 U	0.00964 U
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.0663	0.00878 U	NA	0.00886 U	0.00864 U	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.0673
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.0574 J	0.00878 U	NA	0.00886 U	0.0456 J	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.056 J
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	NA	<b>0.187</b>	0.0146 U [0.0147]	0.0178 U	0.0148 U	0.131	0.0148 U	0.0149 U	0.0144 U	0.015 U	0.141
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0113 U	0.0117 U	<b>0.22</b>	0.0117 U [0.0118]	0.0142 U	0.0118 U	<b>0.139</b>	0.0119 U	0.0119 U	0.0115 U	0.012 U	<b>0.197</b>
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	NA	<b>0.445</b>	0.0117 U [0.0118]	0.0142 U	0.0118 U	<b>0.213</b>	0.04 J	0.0377 J	0.0714	0.012 U	<b>0.415</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.148	0.00878 U	NA	0.00886 U	0.108	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.162
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.162	0.0137 U [0.0137]	NA	0.0138 U	0.0893	0.0139 U	0.0139 U	0.0173 J	0.014 U	0.125
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.251	0.00878 U	NA	0.00886 U	0.146	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.193
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	NA	<b>0.0495 J</b>	0.00683 U	0.0083 U	0.00689 U	0.00672 U	0.00693 U	0.00696 U	0.00673 U	0.007 U	<b>0.0496 J</b>
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.236	0.00878 U	NA	0.00886 U	0.295	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.172
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.0115 U	0.0117 U [0.0118]	NA	0.0118 U	0.0115 U	0.0119 U	0.0119 U	0.0115 U	0.012 U	0.0116 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	0.135	0.00975 U [0.0098]	NA	0.00985 U	0.0898	0.0099 U	0.0335 J	0.0409 J	0.00999 U	0.136
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.00861 U	0.00878 U	NA	0.00886 U	0.00864 U	0.00891 U	0.00895 U	0.00865 U	0.00899 U	0.00868 U
Phenanthrene	--	--	--	mg/kg	NA	NA	0.0637 J	0.00878 U	NA	0.00886 U	0.177	0.00891 U	0.00895 U	0.0154 J	0.00899 U	0.0607 J
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.294	0.0117 U [0.0118]	NA	0.0118 U	0.254	0.0119 U	0.0119 U	0.038 J	0.012 U	0.196
<b>Inorganics</b>																
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	NA	<b>112 J</b>	10.1 J [7.96 J]	9.77	15.2 J	0.971 UJ	15.7	10.6	10.8	11.9	<b>30.8 J</b>
<b>Lead</b>	800	400	--	mg/kg	NA	NA	31.6 J	132 [9.83 J]	NA	177 J	7.61 J	8.1 J	28.6 J	17.8 J	70.6 J	118 J
<b>Pesticides</b>																
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.12	0.325 [0.216]	NA	0.000425 U	0.218	0.00288	0.00346 J	0.000421 U	0.0114	0.0131 J
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.701	0.501 D [0.419]	NA	0.000494 U	0.187	0.0235	0.00369	0.00771	0.0005 U	0.0647
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.683	0.307 [0.145]	NA	0.00084 U	0.152	0.00269 J	0.00161 J	0.000833 UJ	0.0118 J	0.115
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.00613 U	0.0031 U [0.00303]	NA	0.000306 U	0.00306 U	0.000298 U	0.000308 U	0.000304 U	0.00031 U	0.00303 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00395 U	0.002 U [0.00195]	NA	0.000198 U	0.00197 U	0.000192 U	0.000199 U	0.000196 U	0.0002 U	0.00196 U
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.0085 U	0.00429 U [0.0042]	NA	0.000425 U	0.00424 U	0.000413 U	0.000427 U	0.000421 U	0.00043 U	0.00421 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00395 U	0.0134 J [0.0138]	NA	0.000198 U	0.00197 U	0.000192 U	0.000199 U	0.000196 U	0.0002 U	0.00196 U
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.718 U	0.363 U [0.355 U]	NA	0.0359 U	0.358 U	0.0348 U	0.0361 U	0.0356 U	0.0363 U	0.355 U
delta-BHC	--	--	--	mg/kg	NA	NA	0.00751 U	0.0038 U [0.00371]	NA	0.000375 U	0.00375 U	0.000365 U	0.000378 U	0.000372 U	0.00038 U	0.00372 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	0.00791 U	0.004 U [0.00391]	NA	0.000395 U	0.00395 U	0.000384 U	0.000397 U	0.000392 U	0.0004 U	0.00391 U
Endosulfan I	--	--	--	mg/kg	NA	NA	0.00929 U	0.00469 U	NA	0.000464 U	0.00464 U	0.000451 U	0.000467 U	0.00046 U	0.00047 U	0.0046 U
Endosulfan II	--	--	--	mg/kg	NA	NA	0.0109 U	0.00549 U	NA	0.000543 U	0.00543 U	0.000528 U	0.000547 U	0.000539 U	0.00055 U	0.00538 U
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.00989 U	0.00499 U	NA	0.000494 U	0.00494 U	0.00048 U	0.000497 U	0.00049 U	0.0005 U	0.00489 U
Endrin	250	18	--	mg/kg	NA	NA	0.0085 U	0.00429 U [0.0042]	NA	0.000425 U	0.00424 U	0.000413 U	0.000427 U	0.000421 U	0.00043 U	0.00421 U
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.0101 U	0.00509 U	NA	0.000504 U	0.00503 U	0.000489 U	0.000507 U	0.0005 U	0.00051 U	0.00499 U
Endrin ketone	--	--	--	mg/kg	NA	NA	0.0117 U	0.00589 U	NA	0.000583 U	0.00582 U	0.000566 U	0.000586 U	0.000578 U	0.000589 U	0.00577 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00771 U	0.0039 U [0.00381]	NA	0.000385 U	0.00385 U	0.000374 U	0.000388 U	0.000382 U	0.00039 U	0.00382 U
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.0156 U	0.00789 U	NA	0.00078 U	0.0078 U	0.000758 U	0.000785 U	0.000774 U	0.000789 U	0.00773 U
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.0083 U	0.00419 U [0.0041]	NA	0.000415 U	0.00415 U	0.000403 U	0.000417 U	0.000412 U	0.00042 U	0.00411 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.0129 U	0.00649 U	NA	0.000642 U	0.00642 U	0.000624 U	0.000646 U	0.000637 U	0.000649 U	0.00636 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.834 U	0.421 U [0.412 U]	NA	0.0417 U	0.417 U	0.0405 U	0.0419 U	0.0413 U	0.0422 U	0.413 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-141 1 - 2 09/17/14 BL-SB-141_1_2	BL-SB-141 2 - 4 09/17/14 BL-SB-141_2_4	BL-SB-142 0 - 1 09/17/14 BL-SB-142_0_1	BL-SB-142 1 - 2 09/17/14 BL-SB-142_1_2	BL-SB-142 2 - 4 09/17/14 BL-SB-142_2_4	BL-SB-142 4 - 6 09/17/14 BL-SB-142_4_6	BL-SB-143 0 - 1 09/16/14 BL-SB-143_0_1	BL-SB-143 1 - 2 09/16/14 BL-SB-143_1_2	BL-SB-143 2 - 4 09/16/14 BL-SB-143_2_4	BL-SB-143 4 - 6 09/16/14 BL-SB-143_4_6	BL-SB-144 10 - 12 09/16/14 BL-SB-144_10_12
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0135 U	0.0137 U	0.0139 U	0.0139 U	NA	NA	0.0134 U	0.0287 J	NA	NA	0.0138 U [0.0139 U]
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0154 U	0.0156 U	0.0406 J	0.0159 U	NA	NA	0.0153 U	0.0332 J	NA	NA	0.0157 U [0.0159 U]
Acenaphthene	45,000	3,500	--	mg/kg	0.00962 U	0.00977 U	0.00996 U	0.00996 U	NA	NA	0.00955 U	0.0608 J	NA	NA	0.00984 U [0.00996 U]
Acenaphthylene	--	--	--	mg/kg	0.00866 U	0.0088 U	0.0498 J	0.00897 U	NA	NA	0.0086 U	0.0358 J	NA	NA	0.00885 U [0.00896 U]
Anthracene	230,000	17,000	--	mg/kg	0.00866 U	0.0088 U	0.0416 J	0.00897 U	NA	NA	0.0323 J	0.147	NA	NA	0.00885 U [0.00896 U]
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0144 U	0.0147 U	0.137	0.0149 U	NA	NA	0.154	0.322	0.0852 U	0.0172 U	0.0148 U [0.0149 U]
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0115 U	0.0117 U	0.201	0.012 U	0.0143 U	NA	0.145	0.334	0.0681 U	0.0137 U	0.0118 U [0.0119 U]
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.0115 U	0.0117 U	0.356	0.012 U	0.0143 U	NA	0.274	0.474	0.128 J	0.0137 U	0.0118 U [0.0119 U]
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.00866 U	0.0088 U	0.138	0.00897 U	NA	NA	0.103	0.204	NA	NA	0.00885 U [0.00896 U]
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0135 U	0.0137 U	0.141	0.0139 U	NA	NA	0.0877	0.155	NA	NA	0.0138 U [0.0139 U]
Chrysene	290	15	--	mg/kg	0.00866 U	0.0088 U	0.207	0.00897 U	NA	NA	0.192	0.363	NA	NA	0.00885 U [0.00896 U]
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.00673 U	0.00684 U	0.0384 J	0.00697 U	0.00837 U	NA	0.0525 J	0.0667	0.0397 U	0.00802 U	0.00689 U [0.00697 U]
Fluoranthene	30,000	2,300	--	mg/kg	0.00866 U	0.0088 U	0.149	0.00897 U	NA	NA	0.358	0.708	NA	NA	0.00885 U [0.00896 U]
Fluorene	30,000	2,300	--	mg/kg	0.0115 U	0.0117 U	0.012 U	0.012 U	NA	NA	0.0115 U	0.0691	NA	NA	0.0118 U [0.0119 U]
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.00962 U	0.00977 U	0.128	0.00996 U	NA	NA	0.108	0.193	0.0568 U	0.0115 U	0.00984 U [0.00996 U]
Naphthalene	17	3.8	--	mg/kg	0.00866 U	0.0088 U	0.00896 U	0.00897 U	NA	NA	0.0086 U	0.0498 J	NA	NA	0.00885 U [0.00896 U]
Phenanthrene	--	--	--	mg/kg	0.00866 U	0.0088 U	0.0456 J	0.00897 U	NA	NA	0.134	0.583	NA	NA	0.00885 U [0.00896 U]
Pyrene	23,000	1,700	--	mg/kg	0.0115 U	0.0117 U	0.16	0.012 U	NA	NA	0.324	0.652	NA	NA	0.0118 U [0.0119 U]
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	12.9 J	1.52 J	41.4 J	69.3 J	7.92	14.1	4.86	11.5	NA	NA	12.1 [9.39]
Lead	800	400	--	mg/kg	22.6 J	3.89 J	744 J	5.32 J	14.1	NA	8 J	83.2 J	NA	NA	18.8 [19.9]
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.000429 U	0.00042 U	0.141	0.292 D	NA	NA	0.000425 U	0.00773 J	NA	NA	0.000408 U [0.000418 U]
4,4'-DDE	6.8	1.6	--	mg/kg	0.000499 U	0.000489 U	0.442	0.221 D	NA	NA	0.000494 U	0.00758 J	NA	NA	0.000475 U [0.000486 U]
4,4'-DDT	8.6	1.9	--	mg/kg	0.000848 U	0.000831 U	0.121	6.18 D	0.0519 D	0.178 D	0.00145 J	0.0143 J	NA	NA	0.000807 U [0.00165 U]
Aldrin	0.14	0.031	--	mg/kg	0.000309 U	0.000303 U	0.00308 U	0.000301 U	NA	NA	0.000306 U	0.000307 U	NA	NA	0.000294 U [0.000301 U]
alpha-BHC	0.37	0.085	--	mg/kg	0.0002 U	0.000195 U	0.00198 U	0.00165 U	NA	NA	0.000198 U	0.000198 U	NA	NA	0.00019 U [0.000194 U]
alpha-Chlordane	--	--	--	mg/kg	0.000429 U	0.00042 U	0.00427 U	0.0019 JN	NA	NA	0.000425 U	0.000426 U	NA	NA	0.000408 U [0.000418 U]
beta-BHC	1.3	0.3	--	mg/kg	0.0002 U	0.000195 U	0.00614 J	0.0115 J	NA	NA	0.000198 U	0.000198 U	NA	NA	0.00019 U [0.000194 U]
Chlordane (technical)	--	--	--	mg/kg	0.0362 U	0.0355 U	0.36 U	0.0935	NA	NA	0.0359 U	0.0359 U	NA	NA	0.0345 U [0.0353 U]
delta-BHC	--	--	--	mg/kg	0.000379 U	0.000371 U	0.00377 U	0.000369 U	NA	NA	0.000376 U	0.000376 U	NA	NA	0.000361 U [0.000369 U]
Dieldrin	0.14	0.033	--	mg/kg	0.000399 U	0.000391 U	0.00639 J	0.0576 D	0.00677	0.000866 J	0.000395 U	0.000396 U	NA	NA	0.00038 U [0.000388 U]
Endosulfan I	--	--	--	mg/kg	0.000469 U	0.000459 U	0.00466 U	0.000456 U	NA	NA	0.000464 U	0.000465 U	NA	NA	0.000446 U [0.000456 U]
Endosulfan II	--	--	--	mg/kg	0.000549 U	0.000538 U	0.00546 U	0.000534 U	NA	NA	0.000544 U	0.000545 U	NA	NA	0.000522 U [0.000534 U]
Endosulfan sulfate	--	--	--	mg/kg	0.000499 U	0.000489 U	0.00496 U	0.000485 U	NA	NA	0.000494 U	0.000495 U	NA	NA	0.000475 U [0.000486 U]
Endrin	250	18	--	mg/kg	0.000429 U	0.00042 U	0.00427 U	0.000417 U	NA	NA	0.000425 U	0.000426 U	NA	NA	0.000408 U [0.000418 U]
Endrin aldehyde	--	--	--	mg/kg	0.000509 U	0.000498 U	0.00506 U	0.000495 U	NA	NA	0.000504 U	0.000505 U	NA	NA	0.000484 U [0.000495 U]
Endrin ketone	--	--	--	mg/kg	0.000589 U	0.000577 U	0.00586 U	0.000572 U	NA	NA	0.000583 U	0.000584 U	NA	NA	0.00056 U [0.000573 U]
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.000389 U	0.000381 U	0.00387 U	0.000378 U	NA	NA	0.000385 U	0.000386 U	NA	NA	0.00037 U [0.000379 U]
gamma-Chlordane	--	--	--	mg/kg	0.000788 U	0.000772 U	0.00784 U	0.00642 JN	NA	NA	0.000781 U	0.000782 U	NA	NA	0.00075 U [0.000767 U]
Heptachlor	0.51	0.12	--	mg/kg	0.000419 U	0.00041 U	0.00417 U	0.000407 U	NA	NA	0.000415 U	0.000416 U	NA	NA	0.000399 U [0.000408 U]
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.000649 U	0.000635 U	0.00645 U	0.000631 U	NA	NA	0.000642 U	0.000644 U	NA	NA	0.000617 U [0.000631 U]
Toxaphene	2.1	0.48	--	mg/kg	0.0421 U	0.0412 U	0.419 U	0.791 J	0.042 U	0.0419 U	0.0417 U	0.0418 U	NA	NA	0.0401 U [0.041 U]

**Notes:**

- mg/kg = milligrams per kilogram
  - USEPA = United States Environmental Protection Agency
  - RSL = Regional Screening Level
  - 1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).
  - 2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)
  - 3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.
  - 4. Duplicate concentrations are presented in brackets.
- Data Qualifiers:**
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  - D = Compound quantitated using a secondary dilution.
  - J = estimated value
  - JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier
  - R = - Data was rejected
  - U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-144 12 - 14 09/16/14 BL-SB-144_12_14	BL-SB-144 14 - 16 09/16/14 BL-SB-144_14_16	BL-SB-145 0 - 1 09/16/14 BL-SB-145_0_1	BL-SB-145 1 - 2 09/16/14 BL-SB-145_1_2	BL-SB-145 2 - 4 09/16/14 BL-SB-145_2_4	BL-SB-145 4 - 6 09/16/14 BL-SB-145_4_6	BL-SB-145 6 - 8 09/20/14 BL-SB-145_6_8	BL-SB-145 8 - 10 09/16/14 BL-SB-145_8_10	BL-SB-146 0 - 1 09/17/14 BL-SB-146_0_1	BL-SB-146R 0 - 1 09/30/14 BL-SB-146R_0_1	BL-SB-146R 1 - 2 09/30/14 BL-SB-146R_1_2
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0139 U	0.0137 U	0.0139 U	0.0139 U	NA	NA	NA	NA	0.0371 J	0.014 UJ	0.0137 UJ
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0159 U	0.0157 U	0.0158 U	0.0158 U	NA	NA	NA	NA	0.0443 J	0.016 UJ	0.0157 UJ
Acenaphthene	45,000	3,500	--	mg/kg	0.00992 U	0.00979 U	0.0099 U	0.0099 U	NA	NA	NA	NA	0.00971 U	0.00999 UJ	0.00982 UJ
Acenaphthylene	--	--	--	mg/kg	0.00893 U	0.00881 U	0.00891 U	0.00891 U	NA	NA	NA	NA	0.0702	0.00899 UJ	0.00883 UJ
Anthracene	230,000	17,000	--	mg/kg	0.00893 U	0.00881 U	0.0104 J	0.0203 J	NA	NA	NA	NA	0.0467 J	0.0205 J	0.0181 J
Benzo(a)anthracene	2.9	0.15	--	mg/kg	0.0149 U	0.0147 U	0.0492 J	0.127	NA	NA	NA	NA	0.0818	0.0573 J	0.0485 J
Benzo(a)pyrene	0.29	0.015	--	mg/kg	0.0119 U	0.0117 U	0.0461 J	0.0946	0.359	0.209 J	0.0148 U	0.0143 U	0.091	0.0549 J	0.0469 J
Benzo(b)fluoranthene	2.9	0.15	--	mg/kg	0.0119 U	0.0117 U	0.0902	0.197	0.466	0.253 J	0.0148 U	0.0143 U	0.175	0.0926 J	0.0764 J
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.00893 U	0.00881 U	0.00891 U	0.0857	NA	NA	NA	NA	0.0871	0.0411 J	0.0338 J
Benzo(k)fluoranthene	29	1.5	--	mg/kg	0.0139 U	0.0137 U	0.0272 J	0.0705	NA	NA	NA	NA	0.0605 J	0.0314 J	0.0252 J
Chrysene	290	15	--	mg/kg	0.00893 U	0.00881 U	0.0523 J	0.136	NA	NA	NA	NA	0.103	0.0585 J	0.0475 J
Dibenzo(a,h)anthracene	0.29	0.015	--	mg/kg	0.00695 U	0.00685 U	0.00693 U	0.048 J	0.0334 U	0.0397 U	NA	NA	0.0068 U	0.00699 UJ	0.00687 UJ
Fluoranthene	30,000	2,300	--	mg/kg	0.00893 U	0.00881 U	0.0982	0.278	NA	NA	NA	NA	0.148	0.0974 J	0.0839 J
Fluorene	30,000	2,300	--	mg/kg	0.0119 U	0.0117 U	0.0119 U	0.0119 U	NA	NA	NA	NA	0.0117 U	0.012 UJ	0.0118 UJ
Indeno(1,2,3-cd)pyrene	2.9	0.15	--	mg/kg	0.00992 U	0.00979 U	0.0507 J	0.0929	NA	NA	NA	NA	0.072	0.0377 J	0.00982 UJ
Naphthalene	17	3.8	--	mg/kg	0.00893 U	0.00881 U	0.00891 U	0.00891 U	NA	NA	NA	NA	0.0301 J	0.00899 UJ	0.00883 UJ
Phenanthrene	--	--	--	mg/kg	0.00893 U	0.00881 U	0.053 J	0.118	NA	NA	NA	NA	0.0837	0.0492 J	0.0497 J
Pyrene	23,000	1,700	--	mg/kg	0.0119 U	0.0117 U	0.0879	0.258	NA	NA	NA	NA	0.125	0.0897 J	0.0744 J
<b>Inorganics</b>															
Arsenic	3	0.67	21.2	mg/kg	12.3	8.73	11.7	8.22	NA	NA	NA	NA	97.4 J	8.13	9.24
Lead	800	400	--	mg/kg	16.1	15.2	507 J	66 J	102	NA	NA	NA	66.1 J	96.6 J	6.49 J
<b>Pesticides</b>															
4,4'-DDD	9.6	2.2	--	mg/kg	0.000426 U	0.000427 U	0.00443 JN	0.000418 U	NA	NA	NA	NA	0.00429 U	0.0043 UJ	0.00426 UJ
4,4'-DDE	6.8	1.6	--	mg/kg	0.000495 U	0.000497 U	0.0081 J	0.00371 J	NA	NA	NA	NA	0.00499 U	0.005 UJ	0.0065 J
4,4'-DDT	8.6	1.9	--	mg/kg	0.000841 U	0.000845 U	0.0318 J	0.0089 J	NA	NA	NA	NA	0.00848 U	0.00849 UJ	0.0376 J
Aldrin	0.14	0.031	--	mg/kg	0.000307 U	0.000308 U	0.000281 U	0.000301 U	NA	NA	NA	NA	0.00309 U	0.0031 UJ	0.00307 UJ
alpha-BHC	0.37	0.085	--	mg/kg	0.000198 U	0.000199 U	0.000181 U	0.000194 U	NA	NA	NA	NA	0.00199 U	0.002 UJ	0.00198 UJ
alpha-Chlordane	--	--	--	mg/kg	0.000426 U	0.000427 U	0.00039 U	0.000418 U	NA	NA	NA	NA	0.00429 U	0.0043 UJ	0.00426 UJ
beta-BHC	1.3	0.3	--	mg/kg	0.000198 U	0.000199 U	0.000181 U	0.000194 U	NA	NA	NA	NA	0.00199 U	0.002 UJ	0.00198 UJ
Chlordane (technical)	--	--	--	mg/kg	0.0359 U	0.0361 U	0.0329 U	0.0353 U	NA	NA	NA	NA	0.362 U	0.363 UJ	0.36 UJ
delta-BHC	--	--	--	mg/kg	0.000376 U	0.000378 U	0.000345 U	0.000369 U	NA	NA	NA	NA	0.00379 U	0.0038 UJ	0.00376 UJ
Dieldrin	0.14	0.033	--	mg/kg	0.000396 U	0.000398 U	0.000363 U	0.000389 U	NA	NA	NA	NA	0.00399 U	0.004 UJ	0.00396 UJ
Endosulfan I	--	--	--	mg/kg	0.000465 U	0.000467 U	0.000426 U	0.000457 U	NA	NA	NA	NA	0.00469 U	0.0047 UJ	0.00466 UJ
Endosulfan II	--	--	--	mg/kg	0.000544 U	0.000547 U	0.000499 U	0.000534 U	NA	NA	NA	NA	0.00549 U	0.0055 UJ	0.00545 UJ
Endosulfan sulfate	--	--	--	mg/kg	0.000495 U	0.000497 U	0.000453 U	0.000486 U	NA	NA	NA	NA	0.00499 U	0.005 UJ	0.00495 UJ
Endrin	250	18	--	mg/kg	0.000426 U	0.000427 U	0.00039 U	0.000418 U	NA	NA	NA	NA	0.00429 U	0.0043 UJ	0.00426 UJ
Endrin aldehyde	--	--	--	mg/kg	0.000505 U	0.000507 U	0.000463 U	0.000496 U	NA	NA	NA	NA	0.00509 U	0.0051 UJ	0.00505 UJ
Endrin ketone	--	--	--	mg/kg	0.000584 U	0.000586 U	0.000535 U	0.000573 U	NA	NA	NA	NA	0.00589 U	0.0059 UJ	0.00584 UJ
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.000386 U	0.000388 U	0.000354 U	0.000379 U	NA	NA	NA	NA	0.00389 U	0.0039 UJ	0.00386 UJ
gamma-Chlordane	--	--	--	mg/kg	0.000782 U	0.000785 U	0.000717 U	0.00165 U	NA	NA	NA	NA	0.00788 U	0.00789 UJ	0.00783 UJ
Heptachlor	0.51	0.12	--	mg/kg	0.000416 U	0.000417 U	0.000381 U	0.000408 U	NA	NA	NA	NA	0.00419 U	0.0042 UJ	0.00416 UJ
Heptachlor epoxide	0.25	0.059	--	mg/kg	0.000643 U	0.000646 U	0.00059 U	0.000632 U	NA	NA	NA	NA	0.00648 U	0.00649 UJ	0.00644 UJ
Toxaphene	2.1	0.48	--	mg/kg	0.0418 U	0.0419 U	0.0383 U	0.041 U	NA	NA	NA	NA	0.421 U	0.422 UJ	0.418 UJ

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-146R 2 - 4 09/30/14 BL-SB-146R_2_4	BL-SB-146R 4 - 6 09/30/14 BL-SB-146R_4_6	BL-SB-147 0 - 1 09/17/14 BL-SB-147_0_1	BL-SB-147 1 - 2 09/17/14 BL-SB-147_1_2	BL-SB-147 2 - 4 09/17/14 BL-SB-147_2_4	BL-SB-147 4 - 6 09/17/14 BL-SB-147_4_6	BL-SB-148 0 - 1 09/16/14 BL-SB-148_0_1	BL-SB-148 1 - 2 09/16/14 BL-SB-148_1_2	BL-SB-148R 0 - 1 09/30/14 BL-SB-148R_0_1	BL-SB-148R 1 - 2 09/30/14 BL-SB-148R_1_2	BL-SB-148R 2 - 4 09/30/14 BL-SB-148R_2_4
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.0855	0.0339 J	NA	NA	0.0338 J	0.139 U	0.126 J	0.766 J	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.0985	0.0368 J	NA	NA	0.0463 J	0.159 U	0.168 J	0.767 J	NA
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.00956 U	0.00987 U	NA	NA	0.00968 U	0.0992 U	0.00972 UJ	2.88 J	NA
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.0086 U	0.0464 J	NA	NA	0.00871 U	0.0892 U	0.0913 J	0.878 J	NA
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.0186 J	0.0797	NA	NA	0.0168 J	0.181 J	0.106 J	10.1 J	NA
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0506 J	<b>0.17</b>	0.0176 U	0.0169 U	0.0752	<b>0.628 J</b>	<b>0.362 J</b>	<b>16.4 DJ</b>	<b>1.37 J</b>
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0143 UJ	0.0135 UJ	<b>0.0503 J</b>	<b>0.196</b>	0.0141 U	0.0135 U	<b>0.0696</b>	<b>0.606 J</b>	<b>0.44 J</b>	<b>14.8 J</b>	<b>1.06 J</b>
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	NA	NA	0.0824	<b>0.364</b>	0.0141 U	0.0135 U	0.121	<b>1.03</b>	<b>0.744 J</b>	<b>19.3 DJ</b>	<b>1.49 J</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.0086 U	0.145	NA	NA	0.0433 J	0.327 J	0.306 J	9.4 J	NA
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	0.0321 J	0.107	NA	NA	0.0353 J	0.277 J	0.269 J	<b>2.9 J</b>	0.179 J
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	0.0499 J	0.207	NA	NA	0.0798	0.687	0.398 J	<b>15.4 J</b>	1.35 J
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	NA	NA	0.00669 U	<b>0.0445 J</b>	0.00823 U	0.0079 U	<b>0.0344 J</b>	<b>0.337 J</b>	<b>0.0879 J</b>	<b>1.07 J</b>	<b>0.186 J</b>
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.0783	0.25	NA	NA	0.138	1.27	0.508 J	43.5 DJ	NA
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.0115 U	0.0118 U	NA	NA	0.0116 U	0.119 U	0.0117 UJ	4.76 J	NA
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	0.00956 U	0.138	0.0118 U	0.0113 U	0.0601 J	<b>0.531 J</b>	<b>0.284 J</b>	<b>8.8 J</b>	<b>0.56 J</b>
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.0546 J	0.00888 U	NA	NA	0.00871 U	0.0892 U	0.0972 J	0.574 J	NA
Phenanthrene	--	--	--	mg/kg	NA	NA	0.0963	0.171	NA	NA	0.081	0.771	0.241 J	37 DJ	NA
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.0723	0.239	NA	NA	0.136	1.15	0.494 J	34.8 DJ	NA
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	NA	<b>37.5 J</b>	15.6 J	13.8	NA	8.19	20.1	9.54	12.5	NA
<b>Lead</b>	800	400	--	mg/kg	NA	NA	110 J	9.22	NA	NA	27.1 J	187 J	3.44 J	56.6 J	NA
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.00427 U	0.0084 U	NA	NA	0.00165 U	0.0484	0.0167 J	0.0504 DJ	NA
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.0692	0.00976 U	NA	NA	0.00165 U	0.0169 U	0.0918 J	0.0401 J	NA
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.0412	0.0166 U	NA	NA	0.00362 J	0.0332 J	0.0541 J	0.616 DJ	NA
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.00308 U	0.00605 U	NA	NA	0.000302 U	0.00308 U	0.00304 UJ	0.00307 UJ	NA
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00199 U	0.00391 U	NA	NA	0.000195 U	0.00199 U	0.00196 UJ	0.00198 UJ	NA
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.00427 U	0.0084 U	NA	NA	0.000418 U	0.00428 U	0.00422 UJ	0.00426 UJ	NA
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00199 U	0.00391 U	NA	NA	0.000195 U	0.00199 U	0.00196 UJ	0.0327 UJ	NA
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.361 U	0.709 U	NA	NA	0.0353 U	0.361 U	0.356 UJ	0.36 UJ	NA
delta-BHC	--	--	--	mg/kg	NA	NA	0.00378 U	0.00742 U	NA	NA	0.00037 U	0.00378 U	0.00373 UJ	0.00376 UJ	NA
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	0.00398 U	0.00781 U	NA	NA	0.000389 U	0.00398 U	0.00392 UJ	0.0168 UJ	NA
Endosulfan I	--	--	--	mg/kg	NA	NA	0.00467 U	0.00918 U	NA	NA	0.000457 U	0.00467 U	0.00461 UJ	0.00465 UJ	NA
Endosulfan II	--	--	--	mg/kg	NA	NA	0.00547 U	0.0107 U	NA	NA	0.000535 U	0.00547 U	0.00539 UJ	0.00545 UJ	NA
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.00497 U	0.00976 U	NA	NA	0.000486 U	0.00497 U	0.0049 UJ	0.00495 UJ	NA
Endrin	250	18	--	mg/kg	NA	NA	0.00427 U	0.0084 U	NA	NA	0.000418 U	0.00428 U	0.00422 UJ	0.00426 UJ	NA
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.00507 U	0.00996 U	NA	NA	0.000496 U	0.00507 U	0.005 UJ	0.00505 UJ	NA
Endrin ketone	--	--	--	mg/kg	NA	NA	0.00587 U	0.0115 U	NA	NA	0.000574 U	0.00587 U	0.00578 UJ	0.00584 UJ	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00388 U	0.00762 U	NA	NA	0.000379 U	0.00388 U	0.00382 UJ	0.00386 UJ	NA
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.00785 U	0.0154 U	NA	NA	0.000768 U	0.00786 U	0.00774 UJ	0.00782 UJ	NA
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.00418 U	0.0082 U	NA	NA	0.000409 U	0.00418 U	0.00412 UJ	0.00416 UJ	NA
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.00646 U	0.0127 U	NA	NA	0.000632 U	0.00647 U	0.00637 UJ	0.00644 UJ	NA
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.42 U	0.824 U	NA	NA	0.041 U	0.42 U	0.414 UJ	0.418 UJ	NA

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3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identification

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-148R 4 - 6 09/30/14 BL-SB-148R_4_6	BL-SB-148R 6 - 8 09/30/14 BL-SB-148R_6_8	BL-SB-149 0 - 1 09/16/14 BL-SB-149_0_1	BL-SB-149 1 - 2 09/16/14 BL-SB-149_1_2	BL-SB-149 2 - 4 09/16/14 BL-SB-149_2_4	BL-SB-149 4 - 6 09/16/14 BL-SB-149_4_6	BL-SB-150 0 - 1 09/17/14 BL-SB-150_0_1	BL-SB-150 1 - 2 09/17/14 BL-SB-150_1_2	BL-SB-150 2 - 4 09/17/14 BL-SB-150_2_4	BL-SB-150 4 - 6 09/17/14 BL-SB-150_4_6	BL-SB-151 0 - 1 09/16/14 BL-SB-151_0_1
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	0.139 U	0.031 J	NA	NA	0.0386 J [0.0332]	0.116	NA	NA	0.138 U
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	0.159 U	0.0359 J	NA	NA	0.045 J [0.0412 J]	0.144	NA	NA	0.157 U
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	0.0994 U	0.00997 U	NA	NA	0.0157 J [0.0165]	0.303	NA	NA	0.0984 U
Acenaphthylene	--	--	--	mg/kg	NA	NA	0.0895 U	0.0545 J	NA	NA	0.12 [0.0895]	0.0795	NA	NA	0.0973 J
Anthracene	230,000	17,000	--	mg/kg	NA	NA	0.0895 U	0.0498 J	NA	NA	0.146 [0.102]	0.596	NA	NA	0.176 J
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0401 J	0.0177 UJ	0.149 U	0.147	NA	NA	<b>0.396 [0.312]</b>	<b>1.45</b>	0.0183 U	0.0167 U	<b>0.671</b>
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0145 UJ	0.0142 UJ	0.119 U	<b>0.187</b>	0.0142 U	0.0136 U	<b>0.43 [0.326]</b>	<b>1.25</b>	0.0147 U	0.0133 U	<b>0.69</b>
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0429 J	0.0142 UJ	<b>0.381 J</b>	<b>0.354</b>	0.0142 U	0.0136 U	<b>0.729 [0.58]</b>	<b>1.84</b>	0.0147 U	0.0133 U	<b>1.26</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	0.0895 U	0.138	NA	NA	0.298 [0.226]	0.747	NA	NA	0.459 J
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	0.021 J	NA	0.139 U	0.11	NA	NA	0.318 [0.199]	0.704	NA	NA	0.392 J
<b>Chrysene</b>	290	15	--	mg/kg	0.0441 J	NA	0.0895 U	0.191	NA	NA	0.431 [0.37]	1.5	NA	NA	0.763
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	0.00845 UJ	0.00828 UJ	0.0696 U	<b>0.0648 J</b>	0.00826 U	0.00791 U	<b>0.0947 [0.0595 J]</b>	<b>0.258</b>	0.00855 U	0.00777 U	<b>0.346 J</b>
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	0.0895 U	0.198	NA	NA	0.567 [0.565]	2.72	NA	NA	1.31
Fluorene	30,000	2,300	--	mg/kg	NA	NA	0.119 U	0.012 U	NA	NA	0.0228 J [0.0119]	0.383	NA	NA	0.118 U
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	0.0121 UJ	0.0118 UJ	0.0994 U	0.135	NA	NA	<b>0.271 [0.208]</b>	<b>0.685</b>	0.0122 U	0.0111 U	<b>0.593 J</b>
Naphthalene	17	3.8	--	mg/kg	NA	NA	0.0895 U	0.0264 J	NA	NA	0.0411 J [0.0388]	0.365	NA	NA	0.0885 U
Phenanthrene	--	--	--	mg/kg	NA	NA	0.0895 U	0.0912	NA	NA	0.308 [0.276]	2.48	NA	NA	0.773
Pyrene	23,000	1,700	--	mg/kg	NA	NA	0.119 U	0.227	NA	NA	0.496 [0.47]	2.21	NA	NA	1.29
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	NA	14.3	<b>178</b>	15.6	13.4	<b>88.2 J [6.98 J]</b>	12.1 J	14.4	NA	12.8
<b>Lead</b>	800	400	--	mg/kg	NA	NA	52.9 J	101 J	NA	NA	88.2 J [218 J]	116 J	NA	NA	390 J
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	0.012 JN	0.00734 JN	NA	NA	0.00967 J [0.0151]	0.00402 U	NA	NA	0.0043 U
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	0.000487 U	0.0184 J	NA	NA	0.0671 [0.157]	0.00468 U	NA	NA	0.005 U
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	0.0205 J	0.0141 J	NA	NA	0.0491 [0.0789]	0.00795 U	NA	NA	0.0085 U
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	0.000302 U	0.000296 U	NA	NA	0.00303 U	0.0029 U	NA	NA	0.0031 U
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	0.00166 U	0.000191 U	NA	NA	0.00195 U	0.00187 U	NA	NA	0.002 U
alpha-Chlordane	--	--	--	mg/kg	NA	NA	0.000419 U	0.000411 U	NA	NA	0.0042 U [0.00425]	0.00402 U	NA	NA	0.0043 U
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	0.00322 U	0.000191 U	NA	NA	0.00195 U	0.00187 U	NA	NA	0.002 U
Chlordane (technical)	--	--	--	mg/kg	NA	NA	0.0354 U	0.0347 U	NA	NA	0.355 U [0.359 U]	0.34 U	NA	NA	0.363 U
delta-BHC	--	--	--	mg/kg	NA	NA	0.00037 U	0.000363 U	NA	NA	0.00371 U	0.00356 U	NA	NA	0.0038 U
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	0.00422 JN	0.00162 U	NA	NA	0.00391 U	0.00374 U	NA	NA	0.004 U
Endosulfan I	--	--	--	mg/kg	NA	NA	0.000458 U	0.000449 U	NA	NA	0.00459 U	0.0044 U	NA	NA	0.0047 U
Endosulfan II	--	--	--	mg/kg	NA	NA	0.000536 U	0.000526 U	NA	NA	0.00538 U	0.00515 U	NA	NA	0.0055 U
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	0.000487 U	0.000478 U	NA	NA	0.00489 U	0.00468 U	NA	NA	0.005 U
Endrin	250	18	--	mg/kg	NA	NA	0.000419 U	0.000411 U	NA	NA	0.0042 U [0.00425]	0.00402 U	NA	NA	0.0043 U
Endrin aldehyde	--	--	--	mg/kg	NA	NA	0.000497 U	0.000487 U	NA	NA	0.00498 U	0.00477 U	NA	NA	0.0051 U
Endrin ketone	--	--	--	mg/kg	NA	NA	0.000575 U	0.000564 U	NA	NA	0.00577 U	0.00552 U	NA	NA	0.0059 U
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	0.00038 U	0.000373 U	NA	NA	0.00381 U	0.00365 U	NA	NA	0.0039 U
gamma-Chlordane	--	--	--	mg/kg	NA	NA	0.00077 U	0.000755 U	NA	NA	0.00772 U	0.00739 U	NA	NA	0.0079 U
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	0.00166 U	0.000401 U	NA	NA	0.0041 U [0.00415]	0.00393 U	NA	NA	0.0042 U
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	0.000634 U	0.000621 U	NA	NA	0.00635 U	0.00608 U	NA	NA	0.0065 U
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	0.0411 U	0.0403 U	NA	NA	0.412 U [0.417 U]	0.395 U	NA	NA	0.422 U

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-151 1 - 2 09/16/14 BL-SB-151_1_2	BL-SB-151 2 - 3 09/16/14 BL-SB-151_2_3	BL-SB-151R 0 - 1 09/30/14 BL-SB-151R_0_1	BL-SB-151R 1 - 2 09/30/14 BL-SB-151R_1_2	BL-SB-151R 2 - 4 09/30/14 BL-SB-151R_2_4	BL-SB-151R 4 - 6 09/30/14 BL-SB-151R_4_6	BL-SB-151R 6 - 8 09/30/14 BL-SB-151R_6_8	BL-SB-152 0 - 1 09/16/14 BL-SB-152_0_1	BL-SB-152R 0 - 1 09/30/14 BL-SB-152R_0_1	BL-SB-152R 1 - 2 09/30/14 BL-SB-152R_1_2	BL-SB-152R 2 - 4 09/30/14 BL-SB-152R_2_4
<b>Semivolatile Organics</b>															
1-methyl-Naphthalene	73	17	--	mg/kg	0.0211 J	0.0138 U	0.124 J	0.0475 J	NA	NA	NA	0.0296 J	0.0138 UJ	0.0138 UJ	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	0.0198 J	0.0158 U	0.156 J	0.0569 J	NA	NA	NA	0.0374 J	0.0157 UJ	0.0158 UJ	NA
Acenaphthene	45,000	3,500	--	mg/kg	0.0561 J	0.0227 J	0.0198 UJ	0.00975 UJ	NA	NA	NA	0.00984 U	0.00984 UJ	0.00988 UJ	NA
Acenaphthylene	--	--	--	mg/kg	0.0116 J	0.00886 U	0.136 J	0.0579 J	NA	NA	NA	0.00886 U	0.00886 U	0.00889 UJ	NA
Anthracene	230,000	17,000	--	mg/kg	0.158	0.068	0.195 J	0.0708 J	NA	NA	NA	0.0242 J	0.0843 J	0.00889 UJ	NA
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	<b>0.399</b>	<b>0.238</b>	<b>0.742 J</b>	<b>0.256 J</b>	<b>1.13 J</b>	0.0182 UJ	0.018 UJ	0.0771	<b>0.336 J</b>	0.0148 UJ	<b>0.255 J</b>
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	<b>0.41</b>	<b>0.245</b>	<b>0.2 J</b>	<b>0.355 J</b>	<b>1.04 J</b>	0.0146 UJ	0.0144 UJ	<b>0.0801</b>	<b>0.336 J</b>	0.0119 UJ	<b>0.149 J</b>
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	<b>0.473</b>	<b>0.299</b>	<b>1.29 J</b>	<b>0.621 J</b>	<b>1.38 J</b>	0.0146 UJ	0.0144 UJ	0.149	<b>0.583 J</b>	0.0119 UJ	<b>0.304 J</b>
Benzo(g,h,i)perylene	--	--	--	mg/kg	0.244	0.152	0.494 J	0.254 J	NA	NA	NA	0.0554 J	0.224 J	0.00889 UJ	NA
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	0.222	0.124	0.187 J	0.196 J	NA	NA	NA	0.0561 J	0.221 J	0.0138 UJ	NA
<b>Chrysene</b>	290	15	--	mg/kg	0.39	0.223	0.854 J	0.322 J	NA	NA	NA	0.0836	0.361 J	0.00889 UJ	NA
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	<b>0.0667</b>	<b>0.0581 J</b>	<b>0.128 J</b>	<b>0.0454 J</b>	<b>0.19 J</b>	0.00849 UJ	0.0084 UJ	<b>0.0375 J</b>	<b>0.0542 J</b>	0.00692 UJ	<b>0.0442 J</b>
Fluoranthene	30,000	2,300	--	mg/kg	0.847	0.461	1.3 J	0.483 J	NA	NA	NA	0.105	0.577 J	0.00889 UJ	NA
Fluorene	30,000	2,300	--	mg/kg	0.0576 J	0.0178 J	0.0238 UJ	0.0117 UJ	NA	NA	NA	0.0118 U	0.0118 UJ	0.0119 UJ	NA
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	<b>0.222</b>	0.143	<b>0.449 J</b>	<b>0.222 J</b>	<b>0.558 J</b>	0.0121 UJ	0.012 UJ	0.0714	<b>0.215 J</b>	0.00988 UJ	0.121 J
Naphthalene	17	3.8	--	mg/kg	0.0184 J	0.0133 J	0.0922 J	0.04 J	NA	NA	NA	0.023 J	0.00885 UJ	0.00889 UJ	NA
Phenanthrene	--	--	--	mg/kg	0.67	0.264	0.591 J	0.297 J	NA	NA	NA	0.0555 J	0.165 J	0.00889 UJ	NA
Pyrene	23,000	1,700	--	mg/kg	0.811	0.453	1.17 J	0.591 J	NA	NA	NA	0.111	0.513 J	0.0119 UJ	NA
<b>Inorganics</b>															
<b>Arsenic</b>	3	0.67	21.2	mg/kg	<b>22.4</b>	1.13 U	14.5	<b>56.4</b>	10.9	9.89	NA	12.6	15.5	5.18	NA
<b>Lead</b>	800	400	--	mg/kg	137 J	<b>45,500</b>	159 J	67.7 J	NA	NA	NA	26.6 J	64.2 J	7.9 J	NA
<b>Pesticides</b>															
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	0.00166 U	0.000415 U	0.0308 J	<b>30.8 DJ</b>	0.00491 UJ	0.000512 UJ	NA	0.00167 U	0.00424 UJ	0.00408 UJ	NA
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	0.000488 U	0.000482 U	0.131 J	<b>24.5 DJ</b>	0.00571 UJ	0.000595 UJ	NA	0.00386 JN	0.00493 UJ	0.00474 UJ	NA
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	0.000829 U	0.00082 U	0.0663 J	<b>591 DJ</b>	0.0097 UJ	0.00692 J	NA	0.00516 J	0.0172 J	0.00807 UJ	NA
<b>Aldrin</b>	0.14	0.031	--	mg/kg	0.000302 U	0.000299 U	0.00307 UJ	0.0305 UJ	NA	NA	NA	0.000304 U	0.00306 UJ	0.00294 UJ	NA
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	0.000195 U	0.000193 U	0.00198 UJ	<b>0.164 J</b>	0.00228 UJ	0.000238 UJ	NA	0.000196 U	0.00197 UJ	0.0019 UJ	NA
alpha-Chlordane	--	--	--	mg/kg	0.000419 U	0.000415 U	0.00426 UJ	0.0423 UJ	NA	NA	NA	0.000421 U	0.00424 UJ	0.00408 UJ	NA
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	0.000195 U	0.000193 U	0.00198 UJ	<b>7.76 DJ</b>	0.00228 UJ	0.000238 UJ	NA	0.000196 U	0.00197 UJ	0.0019 UJ	NA
Chlordane (technical)	--	--	--	mg/kg	0.0354 U	0.035 U	0.36 UJ	357 UJ	NA	NA	NA	0.0356 U	0.358 UJ	0.344 UJ	NA
delta-BHC	--	--	--	mg/kg	0.000371 U	0.000366 U	0.00377 UJ	0.0374 UJ	NA	NA	NA	0.000372 U	0.00375 UJ	0.00361 UJ	NA
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	0.00039 U	0.000386 U	0.00397 UJ	<b>8.76 DJ</b>	0.00457 UJ	0.000476 UJ	NA	0.00167 U	0.00394 UJ	0.0038 UJ	NA
Endosulfan I	--	--	--	mg/kg	0.000458 U	0.000453 U	0.00466 UJ	0.0462 UJ	NA	NA	NA	0.000461 U	0.00463 UJ	0.00446 UJ	NA
Endosulfan II	--	--	--	mg/kg	0.000536 U	0.00053 U	0.00545 UJ	0.0541 UJ	NA	NA	NA	0.000539 U	0.00542 UJ	0.00522 UJ	NA
Endosulfan sulfate	--	--	--	mg/kg	0.000488 U	0.000482 U	0.00496 UJ	0.0492 UJ	NA	NA	NA	0.00049 U	0.00493 UJ	0.00474 UJ	NA
Endrin	250	18	--	mg/kg	0.000419 U	0.000415 U	0.00426 UJ	0.0423 UJ	NA	NA	NA	0.000421 U	0.00424 UJ	0.00408 UJ	NA
Endrin aldehyde	--	--	--	mg/kg	0.000497 U	0.000492 U	0.00506 UJ	0.0501 UJ	NA	NA	NA	0.0005 U	0.00503 UJ	0.00484 UJ	NA
Endrin ketone	--	--	--	mg/kg	0.000575 U	0.000569 U	0.00585 UJ	0.058 UJ	NA	NA	NA	0.000578 U	0.00581 UJ	0.0056 UJ	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	0.00038 U	0.000376 U	0.00387 UJ	0.0453 J	NA	NA	NA	0.000382 U	0.00384 UJ	0.0037 UJ	NA
gamma-Chlordane	--	--	--	mg/kg	0.00077 U	0.000762 U	0.00783 UJ	2.94 J	NA	NA	NA	0.000774 U	0.00779 UJ	0.0075 UJ	NA
Heptachlor	0.51	0.12	--	mg/kg	0.00041 U	0.000405 U	0.00417 UJ	0.0413 UJ	NA	NA	NA	0.00424	0.00414 UJ	0.00399 UJ	NA
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	0.000634 U	0.000627 U	0.00645 UJ	0.0639 UJ	NA	NA	NA	0.00167 U	0.00641 UJ	0.00617 UJ	NA
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	0.0412 U	0.0407 U	0.418 UJ	4.15 UJ	NA	NA	NA	0.0414 U	0.416 UJ	0.4 UJ	NA

**Notes:**

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2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

**TABLE 3  
Historical Soil Analytical Results 2014**

Location ID: Sample Depth(Feet): Date Collected: Sample Name:	USEPA Industrial Soil RSL	USEPA Residential Soil RSL	Kentucky Background Soil Concentration	Units	BL-SB-152R 4 - 6 09/30/14 BL-SB-152R_4_6	BL-SB-152R 6 - 8 09/30/14 BL-SB-152R_6_8	BL-SB-152R 8 - 10 09/30/14 BL-SB-152R_8_10	BL-SB-153 0 - 1 09/17/14 BL-SB-153_0_1	BL-SB-153 1 - 2 09/17/14 BL-SB-153_1_2	BL-SB-153 2 - 4 09/17/14 BL-SB-153_2_4	BL-SB-154 0 - 1 09/17/14 BL-SB-154_0_1	BL-SB-154 1 - 2 09/17/14 BL-SB-154_1_2	BL-SB-154 2 - 4 09/17/14 BL-SB-154_2_4	BL-SB-154 4 - 6 09/17/14 BL-SB-154_4_6
<b>Semivolatile Organics</b>														
1-methyl-Naphthalene	73	17	--	mg/kg	NA	NA	NA	0.0367 J	0.0137 U	NA	0.0378 J	0.0977 [0.0546 J]	NA	NA
2-Methylnaphthalene	3,000	230	--	mg/kg	NA	NA	NA	0.0479 J	0.0157 U	NA	0.0464 J	0.125 [0.0697]	NA	NA
Acenaphthene	45,000	3,500	--	mg/kg	NA	NA	NA	0.00987 U	0.00982 U	NA	0.0099 U	0.01 U [0.0099 U]	NA	NA
Acenaphthylene	--	--	--	mg/kg	NA	NA	NA	0.14	0.00884 U	NA	0.00891 U	0.009 U [0.00891 U]	NA	NA
Anthracene	230,000	17,000	--	mg/kg	NA	NA	NA	0.0847	0.00884 U	NA	0.0324 J	0.028 J [0.0176 J]	NA	NA
<b>Benzo(a)anthracene</b>	2.9	0.15	--	mg/kg	0.0176 UJ	<b>0.184 J</b>	R	<b>0.441</b>	0.0147 U	0.0185 U	0.0774	0.0823 [0.0549 J]	NA	NA
<b>Benzo(a)pyrene</b>	0.29	0.015	--	mg/kg	0.0141 UJ	<b>0.146 J</b>	R	<b>0.386</b>	0.0118 U	0.0148 U	<b>0.101</b>	<b>0.0868 [0.0579 J]</b>	0.0136 U	0.0143 U
<b>Benzo(b)fluoranthene</b>	2.9	0.15	--	mg/kg	0.0141 UJ	<b>0.195 J</b>	R	<b>0.758</b>	0.0118 U	0.0148 U	<b>0.172</b>	<b>0.165 [0.0924]</b>	0.0136 U	0.0143 U
Benzo(g,h,i)perylene	--	--	--	mg/kg	NA	NA	NA	0.286	0.00884 U	NA	0.0623 J	0.0685 [0.0383 J]	NA	NA
<b>Benzo(k)fluoranthene</b>	29	1.5	--	mg/kg	NA	NA	NA	0.207	0.0137 U	NA	0.0714	0.06 J [0.0437 J]	NA	NA
<b>Chrysene</b>	290	15	--	mg/kg	NA	NA	NA	0.704	0.00884 U	NA	0.104	0.106 [0.0642 J]	NA	NA
<b>Dibenzo(a,h)anthracene</b>	0.29	0.015	--	mg/kg	0.00822 UJ	0.00805 UJ	NA	<b>0.104</b>	0.00687 U	0.00866 U	0.00693 U	0.007 U [0.00693 U]	NA	NA
Fluoranthene	30,000	2,300	--	mg/kg	NA	NA	NA	0.588	0.00884 U	NA	0.0937	0.134 [0.0869]	NA	NA
Fluorene	30,000	2,300	--	mg/kg	NA	NA	NA	0.0118 U	0.0118 U	NA	0.0119 U	0.012 U [0.0119 U]	NA	NA
<b>Indeno(1,2,3-cd)pyrene</b>	2.9	0.15	--	mg/kg	NA	NA	NA	<b>0.238</b>	0.00982 U	0.0124 U	0.0581 J	0.0558 J [0.0356 J]	NA	NA
Naphthalene	17	3.8	--	mg/kg	NA	NA	NA	0.0403 J	0.00884 U	NA	0.00891 U	0.0831 [0.045 J]	NA	NA
Phenanthrene	--	--	--	mg/kg	NA	NA	NA	0.172	0.00884 U	NA	0.0484 J	0.122 [0.0578 J]	NA	NA
Pyrene	23,000	1,700	--	mg/kg	NA	NA	NA	0.589	0.0118 U	NA	0.109	0.129 [0.0765]	NA	NA
<b>Inorganics</b>														
<b>Arsenic</b>	3	0.67	21.2	mg/kg	NA	NA	NA	<b>157 J</b>	15.3 J	18.2	4.24 J	1.06 UJ [7.86 J]	NA	NA
<b>Lead</b>	800	400	--	mg/kg	NA	NA	NA	153 J	14.8 J	NA	152 J	3.31 J [268 J]	NA	NA
<b>Pesticides</b>														
<b>4,4'-DDD</b>	9.6	2.2	--	mg/kg	NA	NA	NA	0.00423 U	0.00042 U	NA	0.00409 U	0.00427 U [0.00424 U]	NA	NA
<b>4,4'-DDE</b>	6.8	1.6	--	mg/kg	NA	NA	NA	0.0167 U	0.000489 U	NA	0.00476 U	0.00497 U [0.01 J]	NA	NA
<b>4,4'-DDT</b>	8.6	1.9	--	mg/kg	NA	NA	NA	0.0224	0.00083 U	NA	0.00808 U	0.00845 U [0.0104 J]	NA	NA
<b>Aldrin</b>	0.14	0.031	--	mg/kg	NA	NA	NA	0.00305 U	0.000303 U	NA	0.00295 U	0.00308 U [0.00306 U]	NA	NA
<b>alpha-BHC</b>	0.37	0.085	--	mg/kg	NA	NA	NA	0.00197 U	0.000195 U	NA	0.0019 U	0.00199 U [0.00197 U]	NA	NA
alpha-Chlordane	--	--	--	mg/kg	NA	NA	NA	0.00423 U	0.00042 U	NA	0.00409 U	0.00427 U [0.00424 U]	NA	NA
<b>beta-BHC</b>	1.3	0.3	--	mg/kg	NA	NA	NA	0.00197 U	0.000195 U	NA	0.0019 U	0.00199 U [0.00197 U]	NA	NA
Chlordane (technical)	--	--	--	mg/kg	NA	NA	NA	0.357 U	0.0355 U	NA	0.345 U	0.361 U [0.358 U]	NA	NA
delta-BHC	--	--	--	mg/kg	NA	NA	NA	0.00374 U	0.000371 U	NA	0.00361 U	0.00378 U [0.00375 U]	NA	NA
<b>Dieldrin</b>	0.14	0.033	--	mg/kg	NA	NA	NA	0.00394 U	0.000391 U	NA	0.0038 U	0.00398 U [0.00395 U]	NA	NA
Endosulfan I	--	--	--	mg/kg	NA	NA	NA	0.00463 U	0.000459 U	NA	0.00447 U	0.00467 U [0.00464 U]	NA	NA
Endosulfan II	--	--	--	mg/kg	NA	NA	NA	0.00542 U	0.000537 U	NA	0.00523 U	0.00547 U [0.00543 U]	NA	NA
Endosulfan sulfate	--	--	--	mg/kg	NA	NA	NA	0.00492 U	0.000489 U	NA	0.00476 U	0.00497 U [0.00493 U]	NA	NA
Endrin	250	18	--	mg/kg	NA	NA	NA	0.00423 U	0.00042 U	NA	0.00409 U	0.00427 U [0.00424 U]	NA	NA
Endrin aldehyde	--	--	--	mg/kg	NA	NA	NA	0.00502 U	0.000498 U	NA	0.00485 U	0.00507 U [0.00503 U]	NA	NA
Endrin ketone	--	--	--	mg/kg	NA	NA	NA	0.00581 U	0.000576 U	NA	0.00561 U	0.00586 U [0.00582 U]	NA	NA
gamma-BHC (Lindane)	2.5	0.56	--	mg/kg	NA	NA	NA	0.00384 U	0.000381 U	NA	0.00371 U	0.00388 U [0.00385 U]	NA	NA
gamma-Chlordane	--	--	--	mg/kg	NA	NA	NA	0.00778 U	0.000772 U	NA	0.00751 U	0.00785 U [0.00779 U]	NA	NA
Heptachlor	0.51	0.12	--	mg/kg	NA	NA	NA	0.00414 U	0.00041 U	NA	0.00399 U	0.00417 U [0.00414 U]	NA	NA
<b>Heptachlor epoxide</b>	0.25	0.059	--	mg/kg	NA	NA	NA	0.0064 U	0.000635 U	NA	0.00618 U	0.00646 U [0.00641 U]	NA	NA
<b>Toxaphene</b>	2.1	0.48	--	mg/kg	NA	NA	NA	0.416 U	0.0412 U	NA	0.401 U	0.419 U [0.416 U]	NA	NA

**Notes:**

mg/kg = milligrams per kilogram

USEPA = United States Environmental Protection Agency

RSL = Regional Screening Level

1. Green-shaded concentrations exceed USEPA Residential RSLs (November 2014).

2. Grey-shaded concentrations exceed USEPA Industrial RSLs (November 2014) and/or Kentucky Regional Background Soil Concentration (Arsenic)

3. Arsenic concentrations are compared to the Kentucky Regional Background Soil Concentration only.

4. Duplicate concentrations are presented in brackets.

Data Qualifiers:

B = compound found in the blank and the sample

D = Compound quantitated using a secondary dilution.

J = estimated value

JN = The analysis indicates the presence of a compound for which there is presumptive evidence to make a tentative identifier

R = - Data was rejected

U = not detected

## APPENDIX A

**DRAFT ENVIRONMENTAL COVENANT**

**Louisville Industrial Park, LLC, 1391 Dixie Highway, Louisville, Kentucky, 40210** (hereinafter “Grantor”) grants an Environmental Covenant (hereinafter “Covenant”) this 28th day of November, 2016 to the following Holder(s) pursuant to KRS Chapter 224 Subchapter 80: **Louisville Industrial Park, LLC, 1391 Dixie Highway, Louisville, Kentucky, 40210** (hereinafter “Grantee”).

**WHEREAS**, Grantor is the owner of certain real property located at **1391 Dixie Highway, Louisville, Kentucky** (hereinafter the “Property”) more particularly described in Deed Book 7295 Page 0715 of the Jefferson County Clerk’s office and described as follows:

BEGINNING at an iron pipe at the intersection of the East line of Dixie Highway, as established in Deed Book 1653, Page 553, in the Office of the Clerk, of Jefferson County, Kentucky, with the North line of the Kentucky and Indiana Terminal Railroad right-of-way; thence with the East side of Dixie Highway North 17 degrees 07 minutes East 185.13 feet to the Northwest corner of the tract conveyed to Schenley Distillers, Inc. by deed of record in Deed Book 4386, Page 457, in the Office aforesaid; thence with the North line of said tract South 85 degrees 20 minutes East 872.14 feet to an iron pipe in the West line of the tract conveyed to Louisville Cooperage Company, by deed of record in Deed Book 1533, Page 5, in the Office aforesaid; thence with the West line of said tract, North 8 degrees 25 minutes East 460 73 feet to a Northwesterly corner of said tract; thence South 84 degrees 10 minutes East 775.37 feet to the West line of the 17<sup>th</sup> Street; thence with same if extended South 7 degrees 11 minutes West 18.37 feet to a spike in the South line of the first alley South on Wilson Avenue; thence with the south line of aforesaid alley South 84 degrees 17 minutes 30 seconds East 842.14 feet to an iron pipe at the Northeast corner of the tract conveyed to Shenley Distillers, Inc., by deed of record in Deed book 3574, Page 221, in the Office aforesaid; thence with the East line of said tract, South 6 degrees 37 minutes 30 seconds West 619.56 feet to an iron pipe at the Northeast corner of the tract conveyed to the Kentucky and Indiana Terminal Railroad Company, by deed of record in Deed book 1843, Page 224, in the Office aforesaid; thence with the North line of last mentioned tract, North 84 degrees 08 minutes 30seconds West 338.48 feet to a point in the center line of 16<sup>th</sup> Street, as close by judgement in Action #35674, Jefferson Circuit court; thence South 7 degrees 11 minutes 30 seconds West 25 feet to an iron pipe in the North line of Magnolia Avenue; thence with the North line of Magnolia Avenue and the North line of he Kentucky and Indiana Terminal Railroad right-of-way, North 84

degrees 08 minutes 30 seconds West 2198.24 feet to the point of BEGINNING.

EXCEPTING THEREFROM so much as was conveyed to the City of Louisville public alley, by deed of record in Deed book 3510, Page 463, in the Office aforesaid.

The property is further identified as: Block 039H Lot 0026  
Mailing Address: 1391 Dixie Highway, 1392, 1397, 1399, 1401 S. 16<sup>th</sup> Street and 1698 Saint Louis Avenue, Louisville, KY 40210, in the County of Jefferson.

**WHEREAS**, the Property is the subject of remedial action pursuant to KRS 224.01-400;

**WHEREAS**, this instrument is an Environmental Covenant developed and executed pursuant to KRS 224.80-100 to KRS 224.80-210;

**WHEREAS**, the contaminates in the soil were detected at the concentrations set forth in Table 3 of the Interim Corrective Action Plan Revision No. 1, dated October 2016, attached as Exhibit 1 hereto;

**WHEREAS**, Grantor has proposed a Site Management Plan (hereinafter the “Plan”) to manage the hazards of the chemicals detected on site that includes controlling exposure to these substances by restricting the use of the Property and activities on the Property;

**WHEREAS**, the purpose of this Covenant is to ensure protection of human health and the environment by placing restrictions on the Property to reduce the risk to human health for those hazardous constituents, substances, pollutants or contaminants that remain on the Property. The restrictions **do not** prohibit the use of groundwater for potable use and **do not** prohibit Residential Uses on the Property **outside of the proposed bermed area (“Bermed Area”)**; and

**WHEREAS**, further information concerning the presence of these substances on the Property and the activities to correct their hazards may be obtained by contacting the Custodian of Records of the Kentucky Division of Waste Management at 300 Sower Boulevard, Frankfort, Kentucky 40601. Records concerning this property may be found under TEMPO Agency Interest number **52202**.

**NOW, THEREFORE**, Grantor hereby grants this Environmental Covenant to the Holder, and declares that the Property shall hereinafter be bound by, held, sold, used, improved, occupied, leased, hypothecated, encumbered, and/or conveyed subject to the requirements set forth in Paragraphs 1 through 3 below:

**1. DEFINITIONS**

**A. Owner.** “Owner” means Louisville Industrial Park, LLC, its successors, assigns and heirs in interest.

**B. Residential Use.** “Residential Use” includes (i) single-family or multi-family residences, (ii) child or adult care facilities, (iii) nursing home or assisted living facilities, and (iv) any type of educational purpose for children/young adults in grades kindergarten through twelfth grade.

**2. USE RESTRICTIONS**

**A. Prohibited Uses.** The Property may not be used for any use inconsistent with the Plan, **except that there shall be no Residential Use within the Bermed Area.**

**B. Prohibited Activities.**

i. In order to protect human health, safety or the environment, no action shall be taken, allowed, suffered, or omitted on the **Bermed Area** if such action or omission is reasonably likely to:

a. Create a risk of migration of hazardous substances, pollutants or contaminants or a potential hazard to human health or the environment; or

b. Result in a disturbance of the structural integrity of any engineering controls designed or utilized on the **Bermed Area** to contain hazardous substances, pollutants or contaminants or limit human exposure to hazardous substances, pollutants or contaminants.

**C. Disturbance of the Cap.** Prior to any disturbance inconsistent with the approved Plan of the cap placed on the **Bermed Area**, the Owner shall submit to the Director, Kentucky Division of Waste Management, a written rationale for disturbance and detailed plans of the proposed construction for his/her review and written approval. No such disturbance is permitted without this prior written approval.

**D. Soil Disturbances.** Soil at the **Bermed Area** shall not be disturbed in any manner inconsistent with the approved Plan without the Owner obtaining prior approval of the Director, Kentucky Division of Waste Management.

**3. GENERAL PROVISIONS**

**A. Restrictions to Run with the Land.** This Environmental Covenant runs with the land pursuant to KRS 224.80-140; is perpetual unless modified or terminated pursuant to the terms of this Covenant; is imposed upon the entire Property unless expressly stated as applicable only to a specific portion thereof, **being the Bermed Area**; and inures to the benefit of and passes with each and every portion of the Property; and

binds the Owner, the Holder, all persons using the land, all persons, their heirs, successors and assigns having any right, title or interest in the Property, or any part thereof who have subordinated those interests to this Environmental Covenant, and all persons, their heirs, successors and assigns who obtain any right, title or interest in the Property, or any part thereof after the recordation of this Environmental Covenant.

**B. Conveyances of the Property.** Owner shall notify the Director of the Kentucky Division of Waste Management at least thirty (30) days in advance of any proposed grant, transfer, or conveyance of any interest in any or all of the Property. Notice shall include the name, address and telephone number of the prospective transferee, a copy of the proposed deed or other documentation evidencing the conveyance, and a survey map that shows the boundaries of the Property being transferred.

**C. Incorporation into Deeds and Leases.** Each instrument hereafter conveying any interest in the Property or any portion of the Property shall contain a notice of the activity and use limitations set forth in this Environmental Covenant, and provide the recorded location of this Environmental Covenant. The notice shall be substantially in the following form:

THE INTEREST CONVEYED HEREBY IS SUBJECT TO AN ENVIRONMENTAL COVENANT, DATED \_\_\_/\_\_\_/\_\_\_, RECORDED IN THE OFFICIAL RECORDS OF THE JEFFERSON COUNTY CLERK'S OFFICE IN DEED BOOK \_\_\_\_\_, PAGE \_\_\_\_\_.

**D. Zoning Changes.** Owner shall notify the Director, Kentucky Division of Waste Management simultaneously when any application is submitted to a local government for a building permit for the Property. Owner shall notify the Kentucky Division of Waste Management of any proposed change in the land use for the Property.

**E. Compliance Certification.** Owner shall submit an annual report to the Director of the Kentucky Division of Waste Management, on the anniversary of the date this Covenant was signed by the Grantor, detailing the Owner compliance, and any lack of compliance with the terms of the Covenant in regard to the **Bermed Area**.

**F. Right of Access.** Owner hereby grants the Kentucky Energy and Environment Cabinet, its agents, contractors and employees the right of access to the **Bermed Area** for implementation or enforcement of this Environmental Covenant.

**G. Representations and Warranties.** Grantor hereby represents and warrants to the other signatories hereto:

- i. that the Grantor has the power and authority to enter into this Environmental Covenant, to grant the rights and interests herein provided and to carry out all obligations hereunder;

- ii. that the Grantor is the sole owner of the Property and holds fee simple title, free, clear, and unencumbered;
- iii. that the Grantor has complied with all public notice requirements in KRS 224.80-110;
- iv. that this Environmental Covenant will not materially violate or contravene or constitute a material default under any other agreement, document or instrument to which Grantor is a party, or by which Grantor may be bound or affected;
- v. that this Environmental Covenant will not materially violate or contravene any zoning law or other law regulating use of the Property;
- vi. that this Environmental Covenant does not authorize a use of the Property that is otherwise prohibited by a recorded instrument that has priority over the Environmental Covenant; and
- vii. That the Grantor has identified all other parties that hold any interest in the Property and notified such parties of the Grantor's intention to enter into this Environmental Covenant.

**H. Compliance Enforcement.** The terms of the Environmental Covenant may be enforced by the Kentucky Energy and Environment Cabinet or any person identified in KRS 224.80-200 in accordance with applicable law. Failure to timely enforce compliance with this Environmental Covenant or the use limitations contained herein by any person shall not bar subsequent enforcement by such person and shall not be deemed a waiver of the person's right to take action to enforce any non-compliance. Nothing in this Environmental Covenant shall restrict the Kentucky Energy and Environment Cabinet from exercising any authority under applicable law.

**I. Modifications/Termination.** This Environmental Covenant runs with the land and is perpetual, unless modified or terminated in accordance with KRS 224.80-180 or KRS 224.80-190. The term "Amendment" as used in this Environmental Covenant, shall mean any changes to the Environmental Covenant, including the activity and use limitations set forth herein, or the elimination of one or more activity and use limitations when there is at least one limitation remaining. The term "Termination" as used in this Environmental Covenant, shall mean the elimination of all activity and use limitations set forth herein and all other obligations under this Environmental Covenant.

**J. Notices.** Any document or communication required to be sent to Kentucky Energy and Environment Cabinet or the Director, Division of Waste Management under this Covenant shall be sent to:

Director, Division of Waste Management  
Department for Environmental Protection  
300 Sower Boulevard

Frankfort, Kentucky 40601

**K. Severability.** If any provision of this Environmental Covenant is found to be unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions shall not in any way be affected or impaired.

**L. Governing Law.** This Environmental Covenant shall be governed by and interpreted in accordance with the laws of the Commonwealth of Kentucky.

**M. Recordation.** Within ten (10) days Grantor shall file this Environmental Covenant in the county clerk's office in each county that contains any portion of the real property subject to this Environmental Covenant.

**N. Effective Date.** The effective date of this Environmental Covenant shall be the date upon which the fully executed Environmental Covenant has been recorded as a deed record for the Property with the **Jefferson** County Clerk's Office.

**O. Distribution of Environmental Covenant.** Within thirty (30) days of the filing of this covenant the Grantor shall distribute a file and date stamped copy of the recorded Environmental Covenant to the following persons: Director, Kentucky Division of Waste Management, every Holder of this Environmental Covenant, each person who is in possession of the Property, each person who holds a recorded interest in the Property, each person who signed this Environmental Covenant.

**P. Cabinet and Division References.** All references to the Kentucky Energy and Environment Cabinet and the Kentucky Division of Waste Management shall include successor agencies/departments/divisions or other successor entities.

Louisville Industrial Park, LLC has caused this Environmental Covenant to be executed pursuant to KRS Chapter 224.80-100 to KRS 224.80-210 on this \_\_\_\_ day of \_\_\_\_\_, 2017.

**IN TESTIMONY WHEREOF**, the parties have hereunto set their hands this the day and year first above written.

LOUISVILLE INDUSTRIAL PARK, LLC  
a Kentucky limited liability corporation  
GRANTOR/GRANTEE

By: \_\_\_\_\_  
Tony R. Young  
Title: Managing Member

COMMONWEALTH OF KENTUCKY     )  
   )  
COUNTY OF Jefferson             )

The foregoing Environmental Covenant was acknowledged before me by Tony R. Young, Managing Member, Louisville, Industrial Park, LLC, a Kentucky limited liability corporation, as Grantor, this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**KENTUCKY ENERGY AND ENVIRONMENT CABINET**

This Environmental Covenant is hereby approved by the Kentucky Energy and Environment Cabinet this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

By: \_\_\_\_\_

Title: Director, Division of Waste Management

Date: \_\_\_\_\_, Year

COMMONWEALTH OF KENTUCKY )

)

COUNTY OF JEFFERSON )

The foregoing Environmental Covenant was acknowledged before me by \_\_\_\_\_, as Director, on behalf of the Kentucky Division of Waste Management, this the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

My Commission expires: \_\_\_\_\_

\_\_\_\_\_  
Notary Public

**PREPARED WITHOUT EXAMINATION  
OF TITLE; RETURN ADDRESS FOR FILING:**

\_\_\_\_\_  
Attorney at Law

