REVISED REMEDIATION WORK PLAN

FORMER COLUMBUS WOOD TREATING PLANT
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

September 20, 2011
Project No. 7893/11-230

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Former Columbus Wood Treating Plant
53 Lafayette Avenue
Columbus, Indiana

Prepared For:
Ed Curtin, FALSA
Executive Director, Redevelopment Commission
City of Columbus, Indiana

September 20, 2011
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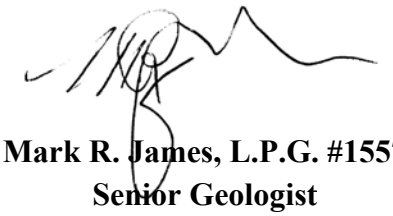
Respectfully Submitted,
Bruce Carter Associates, LLC



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EXECUTIVE SUMMARY

The Former Columbus Wood Treating Plant is located at 53 Lafayette Avenue in Columbus, Indiana. The project site consists of one parcel (Lot 3) totaling 1.24 acres located east of Lafayette Avenue, and north of the railroad tracks. It appears that coal and coke processing took place at the site from 1885 to 1903. The wood treating plant began operations at the site in the 1920's. Operations included the use of creosote for preservation of wood products. The plant closed in 1970 and the buildings were destroyed in a fire in 1971. All structures were removed and the site was covered with fill material. The site is currently unoccupied.

Environmental investigations began in 1999 by others and continued until 2010. Bruce Carter Associates, LLC (BCA) began their investigations in 2010 and has prepared this remediation work plan (RWP). This RWP was developed in response to evidence of contamination of soil and groundwater related to wood treating. Chemicals of concern (COCs) for the site indicate volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) polynuclear aromatic hydrocarbons (PAHs), and metals, are present in the subsurface. Specifically, relatively high levels of pentachlorophenol (PCP), naphthalene, and other PAHs are present in the soil and groundwater.

In June 2011, the Indiana Brownfield Program (IBP) became the regulatory agency for the site. In addition, BCA is working with the Columbus Downtown, Inc. (owner) and Columbus Redevelopment Commission (CRC) (client) in redevelopment of the site as a parking lot for a future recreational center.

The RWP outlines the technical approach to remediating the soil and redevelopment of the site. The approach includes the excavation and stockpiling of clean soil overburden to an average depth of eight (8) feet, the excavation and disposal of soil containing above the ICL-Direct and Construction values of SVOCs other than PCP, and in-situ soil stabilization / solidification (S/S) of soils containing PCP above the ICL-Direct. The clean overburden soil will be replaced in the excavation, re-graded, and compacted. Finally, an asphalt parking lot will be constructed over the excavated / treated soil reducing infiltration and leaching to the groundwater. The parking lot will also prevent direct exposure of residual soil impacts. Destroyed monitoring wells will be replaced after the remediation construction and all the monitoring wells will be sampled for four (4) quarters. A remediation report will be submitted to the IBP upon completion of the remedial activities.

1.0 INTRODUCTION

1.1 Project Background

Site Name: Former Columbus Wood Treating Plant
53 Lafayette Avenue
Columbus, Bartholomew County, Indiana.

Owner: Columbus Downtown, Inc.

Occupant: None

Consultant: Bruce Carter Associates, LLC
John Kilmer and Mark R. James, LPG (317-578-4233)

1.2 Site Information

The former Columbus Wood Treating Plant site (Subject Site) is located on the southwest side of Columbus at 53 Lafayette Avenue. The project site consists of one parcel (Lot 3) totaling 1.24 acres located east of Lafayette Avenue, and north of the railroad tracks (Figure 1 and 2).

The site was assigned an IDEM State Cleanup Site # 000000310. Currently, the site is assigned an Indiana Brownfield Program number of 4100901.

1.3 Current Owner Information

At the time of this writing, the site is owned by the Columbus Downtown, Inc.

1.4 Historical Summary

According to previous environmental reports, it appears that coal and coke processing took place at the site from 1885 to 1903. The wood treating plant began operations at the site in the 1920's. The plant closed in 1970 and the buildings were destroyed in a fire in 1971. Operations on the site

included the use of creosote and PCP for preservation of wood products.

1.5 Past and Current Operations

Most of the Subject Site's history has been as a coke and coal processing facility and a wood treating plant. The Site is currently unoccupied and the site has been unused since 1971. All structures were removed and the site was covered with fill material.

1.6 Report Contact Information

This Remediation Work Plan (RWP) is prepared by Bruce Carter Associates, LLC (BCA). Contact information for BCA personnel preparing this report:

Bruce Carter Associates, LLC
6330 East 75th Street
Indianapolis, Indiana 46250
(317-578-4233)

Contact persons: Mark James and John Kilmer

1.7 Contamination and Spill History

This RWP has been prepared in response to evidence of contamination of soil and groundwater, related to wood treating, that was discovered during site investigations performed by BCA and others. Chemicals of concern (COCs) for the Subject Site indicate volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) polynuclear aromatic hydrocarbons (PAHs), and metals, are present in the subsurface. Specifically, relatively high levels of pentachlorophenol (PCP), naphthalene, benzo(a)pyrene and other SVOCs are present in the soil and groundwater. There is no documentation regarding history of spills or hazardous materials incidents at the site.

1.8 Supporting Documentation

Supporting documents include:

- Sieco, 1999a. Sieco, Inc., *Phase I Environmental Site Assessment, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana* May 1999.

- Sieco, 1999b. Sieco, Inc., *Phase II Site Investigation, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana* October 1999.

- AME 2002. August Mack Environmental, Inc., *Draft Report, Subsurface Investigation, Former Columbus Wood Preserving Plant*, *705 2nd Street, Columbus, Indiana*, 2002.

- Haley and Aldrich 2008. Haley and Aldrich, Inc., *Investigation Report, Former Columbus Wood-Treating Facility*, *VRP Site #6060703*, *705 2nd Street, Columbus, Indiana*, 2008.

- Haley and Aldrich 2009. Haley and Aldrich, Inc., *ASTM Phase I Environmental Site Assessment, Lots 2A and 2B Along 2nd Street, Columbus, Indiana*, 2009.

- BCA 2010, Bruce Carter Associates, L.L.C., *Phase II Environmental Site Assessment, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana,* 2010.

- BCA 2011, Bruce Carter Associates, L.L.C., Interim Remediation Work Plan, *Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana,* 2011.

- BCA 2011, Bruce Carter Associates, L.L.C., *Delineation Sampling (Tables, Figures, and Appendices), Former Columbus Wood Preserving Plant, 53 Lafayette Street, Columbus, Indiana,* 2011.

1.9 Discussion of Relevant Reports

Sieco, Inc. 1999 Phase I and II Investigations

A Phase I Environmental Site Assessment (ESA) was conducted which included the Subject Site. in May, 1999 for the City of Columbus by Sieco, Inc. (Sieco, 1999a). The Phase I identified the following:

- Historic activities on the site are known to have resulted in adverse environmental impact to soil and groundwater on the site. Polynuclear aromatic hydrocarbons (PAHs) and other organic contaminants were identified during limited soil and groundwater sampling completed by the EPA in 1987 (no documentation for this sampling event was found).

- There is potential for contamination as a result of gas station operations to the north and east migrating onto the subject site. One site, Bob's Car Wash located at 711 2nd Street was the location of a low priority leaking underground storage tank (LUST) site. Petroleum contamination was identified on the site as late at 1992.

A Phase II ESA was conducted in October, 1999 for the City of Columbus by Sieco, Inc. (Sieco, 1999b), a portion of which included the Subject Site. The Phase II was conducted to address the issues identified in the May 1999 Phase I ESA and to expand on the findings of the sampling completed by the EPA in 1987. A total of eleven (11) borings were completed during the investigation, and four (4) were placed on the Subject Site (SB-6 and SB-9 through SB-11). Borings SB-7 and SB-8 were placed near the southern property line on the railroad right-of-way. The remaining borings were placed up-gradient to the north or cross-gradient to the east of the site. Groundwater was collected from six (6) probes. A total of 15 soil samples were analyzed for VOCs and SVOCs including PAHs. Based on the results of the investigation, the following conclusions were made regarding the site:

- Significant organic compound contamination was identified through soil and groundwater sampling and analysis on the site. A significant exceedance in soil for multiple analytes was detected in all six (6) borings SB-6 through SB-11 completed on the site. Notable analytes exceeding the IDCLs include benzene, various PAHs and PCP.. Exceedances were also detected in groundwater samples collected from borings SB-7

through SB-11. Notable exceedances include naphthalene in SB-8 (6,400 ug/L compared to the industrial default closure levels (IDCL) of 2,000 ug/L) and SB-10 (5,000 ug/L compared to the IDCL of 2,000 ug/L) and pentachlorophenol in SB-10 (20,300 ug/L compared to an IDCL of 24 ug/L) and SB-11 (400 ug/L compared to the IDCL of 24 ug/L).

Analytical tables showing the results from Sieco's Phase II investigation are presented in Appendix A.

August Mack Environmental 2002 Phase II Investigation

A Phase II was conducted by August Mack Environmental, Inc. (AME 2002) in April and May of 2002 (AME 2002). A total of eleven (11) borings were completed during the investigation, and nine (9) were placed on the subject site (B-12 through B-17, B-19, B-20 and B-22). The remaining borings were placed up-gradient to the north or cross-gradient to the east of the site. Soil samples were collected continuously from the surface to the bottom of each boring. Groundwater samples were collected from each of the nine (9) borings on the site. Soil and groundwater samples were analyzed for total petroleum hydrocarbons (TPH) gasoline-range organics (GRO) and TPH diesel-range organics (DRO), VOCs, SVOCs, pH and metals. Based on the results of the investigation, the following conclusions were made regarding the site:

- The majority of the subject site is covered with black foundry sand to depths of 7 to 12 feet below ground surface. Underlying this unit is native soil consisting of sandy or silty clay. A sand and gravel aquifer was encountered at depths of 12 to 18 feet.

- VOCs, SVOCs and arsenic were detected above the RISC IDCL. Soil and groundwater contamination was found beneath the Subject Site and areas immediately adjoining the Subject Site.

Analytical tables showing the results from August Mack Environmental Phase II investigation are presented in Appendix B.

Haley and Aldrich 2008 Phase II and Phase I Investigation

A Phase II ESA was conducted for the Columbus Redevelopment Commission in 2008 by Haley & Aldrich, Inc. (Haley and Aldrich 2008). The investigation included the Subject and adjoining sites. Based on the Phase II investigation, the following conclusions were made regarding the site:

- Impacted groundwater is present beneath the Subject Site (Lot 3) and extends off site to the south and west.

- The soils at the site consist mainly of foundry sand underlain by sand and gravel or a silty clay layer at some locations. Saturated sand with gravel is found above a continuous silty clay layer at 25-30 feet below grade. A second saturated sand layer was found below the clay at one location.

- The impacted area extends throughout the Subject Site (Lot 3) and chemicals of concern (COCs) include VOCs, SVOCs (primarily pentachlorophenol and naphthalene), some PAHs, TPH extended-range organics (ERO) and arsenic.

- The extent of unsaturated impacted soil is largely limited to the southwest portion of the site (Subject Site or Lot 3) and has been delineated.

- A total of 12 groundwater monitoring wells were installed both on and near the subject site, and a single round of groundwater samples were collected.

- Impacted groundwater was also detected in monitoring wells to the west of the southwest corner (PAHs, TPH-ERO and VOCs) and to the south of the site (arsenic, PAHs, TPH-ERO, and VOCs).

- Impacted groundwater was detected in the single monitoring well in the second aquifer at 45-50 feet (PAH and VOC).

- Groundwater flow in the shallow aquifer is to the south toward Haw Creek and the East Fork of the White River.

Analytical tables showing the results from Haley and Aldrich Phase II investigation are presented in Appendix C.

A Phase I ESA was conducted on the adjoining properties to the north and east on May 12, 2009 (Haley and Aldrich 2009). These properties are designated as Lots 2A and 2B (the Subject Site is designated as Lot 3). The parcel designated as Lot 2A is a combined property that was formerly comprised of two smaller lots with the addresses of 703 2nd Street and 711 2nd Street. Lot 2A is approximately 1 acre in size. A portion of Lot 2A is leased to Brett Cruser LLC, and operated as a Rhino Linings sales and installation center. Another portion of Lot 2A is leased to Robert Cseszko and operated as Bob's Car Wash. Columbus Downtown, Inc. owns Lot 2A. The parcel designated as Lot 2B is approximately 4.5 acres in size (formerly part of 701 2nd Street), is vacant, and is owned by Columbus Downtown, Inc. Based on the 2009 Phase I ESA, recognized environmental conditions identified at the site include:

- It appears that coal and coke processing took place at the site from 1885 to 1903 and creosote treatment was conducted at the site from the 1920s to 1971. Soil and groundwater were impacted by VOCs, PAHs and TPH above the IDEM RISC IDCL.

- Several feet of foundry sand was found throughout the site as fill.

- Site operations at the Rhino Linings, since 1997, have included the storage and application of products including solvents and petroleum distillates.

- A LUST was reported at the 711 2nd Street lot in 1992. It was listed as a low priority, but not granted no further action (NFA) status.

<u>BCA Consultants, Inc. 2010 Phase II Investigation</u>

The purpose of the investigation was to further evaluate the lateral and vertical extent of COCs. Specifically, BCA determined the lateral extent of COCs off-site to the south and west in the shallow aquifer. BCA also investigated the lateral extent of COCs at the bottom of the aquifer at approximately 50 feet bgs. In addition, BCA determined whether COCs are present below the deepest currently impacted monitoring well at a depth of 50 feet bgs.

- Twelve (12) existing monitoring wells were sampled on January 11 through January 14, 2010 using the micro-purge sampling method;

- Water levels were measured in each of the wells. Groundwater samples were analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260, for TPH-ERO by method 8015, and arsenic by Method 6010;

- Groundwater sampling results from the existing 12 monitoring wells indicated MW-2 exceeded the IDCL for benzene (77.5 µg/L compared to an IDCL of 52 µg/L), naphthalene (5,680 µg/L compared to an IDCL of 2,000 µg/L), 3&4-methylphenol (1,540 µg/L compared to an IDCL of 510 µg/L), pentachlorophenol (3,270 µg/L compared to an IDCL of 24 µg/L) and TPH-ERO (91,400 µg/L);

- Groundwater sampling results from MW-4 exceeded the IDCL for pentachlorophenol (813 µg/L compared to an IDCL of 24 µg/L), the PAH compound benzo(a)pyrene (1.31 µg/L compared to an IDCL of 0.39 µg/L) and TPH ERO (2,150 µg/L compared to an IDCL of 1,100 µg/L);

- Groundwater from MW-6 exceeded the IDCL for the PAH compound benzo(a)pyrene (2.05 µg/L compared to an IDCL of 0.39 µg/L) and TPH ERO (4,090 µg/L compared to an IDCL of 1,100 µg/L);

- Groundwater sampling results from MW-9 exceeded the IDCL TPH-ERO (3,650 µg/L compared to an IDCL of 1,100 µg/L);

- Groundwater from MW-11 exceeded the IDCL TPH-ERO (7,050 µg/L compared to an IDCL of 1,100 µg/L);

- Seven (7) groundwater probes were driven off-site to the south and west of the property on January 12 through January 13, 2010. Five (5) of the probes (B-23 through B-27) were driven to first groundwater or a depth of about 25 feet. B-21D and B-22D were driven to a depth of 51 and 52 feet respectively;

- Groundwater was encountered in B-23 through B-27 and was sampled and analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260, for TPH-ERO by method 8015, and for arsenic by Method 6010. One (1) sample from the seven (7) probes (B-21D) exceeded the IDCL TPH-ERO (2,320 µg/L compared to an IDCL of 1,100 µg/L);

- Three (3) permanent monitoring wells were installed on or near the property on February 17 through February 19, 2010. One well (MW-7DD) was installed adjacent to the existing monitoring well MW-7D. MW-7DD was installed to bedrock (62 feet bgs). The well was blank drilled to 50 feet, then sampled to the bottom. The two additional wells (MW-13 and MW-14) were installed south of the subject site in the area of existing monitoring wells MW-11 and MW-12. Both wells were blank drilled to 50 feet (since the locations had previously been sampled continuously to 51 (B-21D) and 52 (B-22D) feet) and then continuously sampled to the bottom;

- On March 2, 2010, the three (3) new wells were developed, purged and sampled using IDEM Low Flow guidance. Groundwater samples from each location were analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260 and for TPH-ERO by method 8015;

- A groundwater sample collected from MW-7DD exceeded the IDCL for naphthalene (2,270 µg/L compared to an IDCL of 2,000 µg/L) benzo(a)pyrene (1.14 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (5,790 µg/L compared to an IDCL of 1,100 µg/L);

- Groundwater from MW-13 exceeded the IDCL for naphthalene (3,410 µg/L compared to an IDCL of 2,000 µg/L), benzo(a)pyrene (0.70 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (8,070 µg/L compared to an IDCL of 1,100 µg/L);

- Groundwater from MW-14 exceeded the IDCL for benzo(a)pyrene (0.70 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (1,940 µg/L compared to an IDCL of 1,100 µg/L).

Please refer to Appendix D for figures and laboratory analytical tables.

Bruce Carter Associates, LLC 2011 Interim Remediation Work Plan

The Interim Remediation Work Plan (RWP) was prepared for the IDEM State Cleanup Section in January 2011. The purpose of the Interim RWP was to describe the unsaturated soil remediation plan on the Subject Site.

The goal of the remediation plan described in the Interim RWP was to remove the soil which can most significantly impact groundwater, and to cover or cap all remaining impacted soil to prevent direct exposure. Impacted soil in the southwest portion of the site was to be excavated and transported to an approved (non-hazardous waste) landfill. Soil confirmation sampling was to be conducted of the sidewalls and bottom of the excavation. Subsequently, clean fill material would replace the impacted soil, a new sub-grade elevation established and a parking lot constructed on the site to support adjoining planned recreational facilities.

Since the submittal of the Interim RWP, the site has been re-assigned to the Indiana Brownfields Program (IBP) in June 2011.

<u>Bruce Carter Associates, LLC 2011 Delineation Sampling / Tier I Treatability</u>

The Interim RWP was conditionally approved with amendments on May 6, 2011 and the project was publically bid during the latter part of May. In June, IDEM determined that a significant portion of the impacted soil, if removed from the site, would have to be treated or disposed as a listed hazardous waste. The CRC requested that BCA conduct more detailed delineation of impacted soil and evaluate treatability of the soil by solidification/stabilization (S/S).

The purpose of the delineation sampling was to better estimate the volume of impacted soil (above and below thresholds for off-site non-hazardous waste disposal) and clean overburden soils. The purpose of the Tier I treatability study was to determine if soil solidification / stabilization (S/S) is a feasible remediation technology for the site.

The field work was conducted August 2nd through August 5th, 2011. The work scope consisted of a total of 26 soil probes (P-1 through P-26) and two (2) groundwater probes (SB-28 and SB-29). A total of 79 soil samples were analyzed for SVOCs by U.S. EPA Method 8270/8270SIM. Four (4) soil samples were analyzed for baseline SVOC and SVOC SPLP and two (2) soil samples were analyzed for TCLP (VOC, SVOC, and 14 Metals), ignitability, corrosivity, and reactivity. Field duplicates and MS/MSD samples were also collected at a frequency of one (1) per 20 samples.

The groundwater samples were collected using the IDEM-approved low-flow or micro-purge sampling method and were analyzed for VOCs and SVOCs. The analytical methods used for analyses include U.S. EPA Methods 8260 and 8270, respectively.

Impacted soil samples exhibiting elevated flame ionization detector (FID) readings were collected from the borings and transported to Western Michigan University for the Tier I treatability study.

Figures and tables from the delineation study and the Tier I Treatability Study, are included as Appendices E and F, respectively. The investigation results are summarized below:

- Each soil probe was extended from the surface to the first groundwater at approximately 18 to 20 feet with exception of one (1) probe, P-7, which encountered refusal at 8 feet bgs;

- Nine (9) of the 26 soil borings had non-detectable samples analyzed for SVOCs. Eight (8) borings had samples above ICL-direct (>54 ppm) for PCP. The remaining nine (9) soil borings had samples above the ICL-

migration for SVOCs but below the ICL-direct (>54 ppm) for PCP;

- Based on the analytical results from the soil boring samples the impacted area was estimated to include 5,400 tons of soil containing PCP >ICL-direct (>54 ppm). The impacted area was also estimated to include 6,000 tons of soil SVOC >ICL-migration and PCP <ICL-direct. The clean overburden soil was estimated at 4,300 tons;

- Four (4) samples, one (1) from each boring including P-6, P-10, P-15, and P-20, were analyzed for SVOC and SVOC SPLP. Two (2) of the highest SVOC SPLP sample results from all four (4) samples were naphthalene and PCP at 10,300 and 26,300 ug/l, respectively;

- Two (2) soil samples from P-6 and P-22 were analyzed for hazardous waste characteristics (TCLP, ignitability, corrosivity, and reactivity) and contained TCLP. SVOC PCP and metals (barium, copper, lead, and zinc) were reported above detection limits but far below hazardous waste characteristic levels.

- Groundwater samples collected from temporary points SB-28 and SB-29 were analyzed for VOCs and SVOCs. The sample collected from SB-28 was non-detect for all parameters. The sample collected from SB-29 had detectable levels of acenaphthene, anthracene, and fluorene but were below the RDCLs for groundwater.

- The Tier I S/S treatability study work scope involved the analysis of SVOC SPLC, falling head permeability, and unconfined compressive strength on three (3) samples; an untreated or control sample, a low dose (5% Portland cement (PC) with 1% powdered activated carbon (PAC)) sample, and a high dose sample (20% PC and 5% PAC). The Tier I results indicated at a high dose concentration, the SVOC SPLP passed for every parameter except PCP (PCP had a SVOC SPLP at 315 ppb above the IDCL in groundwater of 24 ppb). The falling head permeability and unconfined compressive strength results at a high dose concentration were beyond the U.S. EPA specifications for S/S at 2.72×10^{-7} cm/sec and 465.5 psi, respectively. A Tier II study is necessary to optimize the PC

and PAC amendment percentages.

Identification of the areas of concern and the scope of work for this remediation work plan are based on information provided by the 2011 BCA Delineation and Pilot Test, the Sieco, Inc. 1999 Phase II ESA report, August Mack Environmental, Inc. 2002 Phase II ESA report, Haley and Aldrich, Inc. 2008 Phase I and II ESA reports.

1.10 Description of Other Available Data and Documents for the Site

No other data was available for the preparation of this remediation work plan.

1.11 Remedial Action Objectives

Columbus Downtown, Inc. is acquiring the site for redevelopment as a parking lot for an adjacent recreational center. Upon completion of the remediation, the Subject Site will receive an estimated two (2) feet of clean cover and the site will be paved. Following completion of the remediation an Environmental Restrictive Covenant (ERC) will be placed to:

1) limit land use to non-residential,
2) prevent installation and use of potable water wells,
3) prevent excavation into soil with residual impacts except with IDEM notification and appropriate protective measures; and,
4) require a maintenance plan for the paved parking lot.

Therefore, the end-use will be commercial, the direct exposure pathway will be eliminated, infiltration will be greatly reduced and there will be no use of groundwater within the plume area.

The IBP has determined the on-site closure objective for soil is the industrial closure level –direct exposure (ICL-Direct) for PCP, the ICL-Direct for the upper 10 feet of soil impacted by SVOCs other than PCP,

and construction worker exposure (ICL-Construction) for soil below 10 feet impacted by SVOCs other than PCP (see Figures 4A through 4D).

1.12 Remedial Objectives

The goals of the remediation are to conduct the following:

1. Remove and stockpile clean overburden soil (Figure 5A);
2. Remove and dispose of the impacted soil greater than ICL-direct (above 10 feet bgs) or construction (below 10 feet bgs) for soil impacted impacted by SVOCs including naphthalene, benzo(a)pyrene, and benzo(a)anthracene (Figure 5B);
3. Perform disposal confirmation sampling of soils excavated, stockpiled, and disposed at an approved landfill;
4. Perform in-situ soil solidification / stabilization (S/S) of the soil containing greater than 54 ppm pentachlorophenol (PCP) (Figure 5C);
5. Perform confirmatory soil sampling of stockpiled clean overburden and sidewalls and bottoms of excavation, where appropriate; and,
6. Backfill and compact stockpiled clean overburden soils and clean fill off-site material to a new sub-grade elevation allowing for the parking lot construction.

1.13 Remedial Work Items

The first phase of remediation will be removal of the clean overburden soil and impacted soil located in the southwest portion of the Site. The clean overburden soil will be removed to an average depth of eight (8) feet bgs and stockpiled on-site and re-used. Impacted soil containing no PCP > 54 mg/kg but above ICL-Direct for other SVOCs will be removed by excavation. Impacted soil above the ICL-Direct from the first 10 feet and soils above the ICL-Construction at a depth of 10 to 20 feet will be slated for disposal at an approved landfill. Please see Table 1A through 1C and Figures 5A and 5B for detailed information.

The second phase of remediation will be in-situ S/S and will be applied to soils greater than 54 ppm PCP. This will be accomplished by performing soil S/S starting an average depth of 12 feet and proceed into the groundwater table and terminate at approximately 24 feet. Some portions of the site near P-11, P-19, P-20, and P-24 will terminate at an average of 13 feet.

In-situ soil S/S uses a hydraulic excavator with an attached blender/mixer or a large hollow-stem auger. A reagent mixer system will deliver the amendments to the blender or auger head allowing thorough mixing of the impacted soil and amendments. This in-situ technology will provide both lateral and vertical mixing by creating an overlapping pattern and moving the blender/mixer or auger up and down. See Appendix G for photographs of the soil S/S in-situ technology and Figure 5C showing the approximate boundary of PCP greater than 54 mg/kg.

The third phase of remediation will involve backfilling clean overburden soil and fill material from a clean off-site source. The soils and fill material will be backfilled from an average of 12 feet bgs to the original surface with self-compacting fill material and/or fill material re-compacted in 6-inch lifts.

After the third phase is completed, additional clean off-site fill material, where needed, will be placed throughout the site to develop a new elevation for the asphalt parking lot construction. Those monitoring wells destroyed during the construction activities will be replaced once a final grade has been determined.

A monitoring well sampling plan will be developed to collect samples from selected existing monitoring wells for a period of four (4) quarters.

2.0 INVESTIGATION ACTIVITIES

2.1 Summary Information to Select Remedy

The selected remedy for the impacted unsaturated (vadose) soil on the Subject Site is excavation and disposal of the soil impacted with SVOCs (except PCP) above ICL-Direct or Construction and in-situ soil S/S of the impacted soil containing PCP above ICL-Direct at 54 mg/kg.

Impacted vadose soils consist of foundry sand and fill material underlain by sandy to silty clay. Previous investigations indicated soil impacts above the ICL-migration for several of the COCs. One of the COCs is Pentachlorophenol and is a target compound for wood treating. Pentachlorophenol has low mobility and low biodegradation rate. Thus, source removal/disposal of other SVOCs and in-situ S/S treatment of PCP would be the best and least costly remedial method for the Subject Site.

The future use of the impacted area is a parking lot. The parking lot will act as a cap to inhibit water infiltration and further leaching to the water table. The upper layer of backfill and parking lot will also prevent direct exposure. This remediation technique of source removal/disposal by excavation and in-situ treatment is the most cost effective compared to other active remediation technologies.

2.2 Known Chemicals of Concern

Known COCs detected in soil are based on the August 2011 delineation sampling results exceeding the closure goals. Closure goals include the ICL-Direct (for PCP) and ICL-Direct from 0 to 10 feet bgs and ICL-Construction from 10 to 20 feet for other SVOCs. The parameters include: benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)flouranthene, carbazole, dibenzofuran, flourene, indeno(1,2,3-cd)pyrene, 2-methylnaphthalene, naphthalene, pentachlorophenol, and phenanthrene.

2.3 Extent of Subsurface Investigations

The subsurface investigations conducted by BCA and others delineated the extent of vadose zone impacts associated with the Subject Site to the north, east, west, and south to the property line. The extent of on-site soil impacts were delineated primarily by the 2011 BCA investigation as well as by previous 1999, 2002 and 2008 investigations. Off-site impacts (mostly groundwater) were delineated by the fore-mentioned reports and the 2010 BCA investigation. The investigation reports are the basis for this Revised RWP.

2.4 Summary of Site Investigations

Laboratory results for on-site unsaturated soil samples were compared to the remediation closure strategy using current ICL-Direct and ICL-Construction values.

August Mack and Sieco obtained soil samples from borings B-7, B-10, B-17, and B-20 containing concentrations exceeding ICL-Direct of at least one (1) or more SVOC parameters.

Soil samples from Haley and Aldrich obtained from monitoring wells MW-2 and MW-4 and soil boring HAB-15 exceeded the ICL-Direct for at least one (1) COC. Most of the soil samples were collected from the surface to 2 feet below grade or are located off-site. Of these, only MW-2 and MW-4 are located on the Subject site.

Groundwater samples from BCA 2010 monitoring well installation sampling event determined COCs were above the IDCL in MW-2 through MW-4, MW-7D, and MW-7DD located on-site. The sampling event determined COCs were above the RDCL in MW-5, MW-6, MW-8 through MW-10, MW-12 through MW-14 located off-site. Seven (7) temporary (one-time-only) groundwater points were also installed and sampled downgradient (south and southwest) of the Subject Site. Three (3) of the seven (7) samples from groundwater points were above the RDCL with two (2) of the three (3) samples not related to the groundwater plume emanating from the Subject Site.

Soil samples from BCA 2011 delineation sampling exceeded the ICL-

Direct or Construction values for at least one (1) COC in 16 probes (P-1 through P-6, P-8 through P-11, P-19 through P-21, and P-24 through P-26). Soil samples exceeded the ICL-Direct for PCP in eight (8) of the 18 probes. The remaining eight (8) probes contained soil samples less than ICL-Direct. Two (2) groundwater points (SB-28 and SB-29) were located west and southwest of the Subject Site. Only one (1) point (SB-29) contained detectable COCs below the RDCL.

2.5 Summary of Geology and Hydrogeology

The regional and site specific geology and hydrogeology were investigated in the Phase II ESA (BCA, 2010). A summary follows:

Soils

According to the Bartholomew County Soil Survey the soils under the Subject Site are mapped as belonging to the Fox silt loam and the Shoals silt loam. The Fox silt loam is described as moderately deep, well-drained, nearly level to moderately sloping soils on terraces. The Shoals silt loam consists deep, somewhat poorly drained, nearly level soils on bottom lands (SCS, 1976).

Regional Geology and Hydrogeology

The site is located in southern Indiana approximately 1,350 feet northeast of the East Fork White River and approximately 1,200 feet northwest of Haw Creek within the Scottsburg Lowland physiographic province. Surficial deposits are mapped (Gray, 1989) as undifferentiated Pleistocene age outwash. Conditions observed at the site are overbank fluvial deposits (Sand and Silt) overlain by fill material. .

The area of the subject site is underlain by approximately 50 to 100 feet of unconsolidated deposits. The shallow, unconsolidated sediments are Holocene in age, alluvium silt, sand and gravel. The deep, unconsolidated sediments are part of the Atherton Formation – undifferentiated outwash, mainly as valley train sand and gravel (Gray, 1989). These outwash deposits are considered to be Wisconsinan in age (Gray, 1989).

Bedrock underlying the Subject Site is Devonian and Mississipian age consisting of the New Albany Shale. The shale is described as greenish-gray to black fissile shale and ranges in thickness from 85 to 150 feet. The shale is considered a confining unit between the underlying carbonate bedrock aquifer and the overlying sand and gravel aquifer (Fenelon, and others. 1994).

The subject site lies within the hydrogeologic province known as the East Fork White River Basin (Fenelon, et al, 1994). Three aquifers were identified in the area of Columbus Indiana. The potential aquifers are Mississippian/Upper Devonian age carbonate bedrock aquifer, buried sand and gravel aquifer and surficial sand and gravel aquifer. Regional groundwater flow in the area of the subject site is assumed to be generally toward the East Fork White River (Fenelon, et al, 1994). However, local shallow groundwater may flow toward Haw Creek.

Site-Specific Geology and Hydrogeology

Soils encountered in borings at the site consisted of top soil and fill material containing silty sandy clays and silty sands with gravel. Native soils were encountered beginning at a depth of about 10 to 12 feet in borings B-21D and B-22D (also MW-13 and MW-14) where dark brown silty clays overlaid thick silty sands and gravels to depths of nearly 52 feet. Shale bedrock was encountered at 51 to 52 feet in B-21D, and at approximately 53 feet in MW-14. Soils encountered in borings B-23 through B-27 consisted of organic top soils over silty clays and silt to depths of 4 to 6 feet, overlaying silty sands and sand and gravel to at least 12 feet. MW-7DD was blank drilled to a depth of 50 feet before samples were collected and logged. At 50 feet, material encountered included very fine sand and gravel to 52 feet. The boring was blank drilled through very fine heaving sands to a change in formation at about 56 feet. Sampling at 58 to 62 feet indicated saturated silty clay and clay loam overlying loose fine silts and clayey silts. Two feet of dense silty sand overlay weathered shale bedrock at 64 feet. The lack of presence of these clay and silt layers in deep borings to the south indicates that these layers are likely intermittent lenses, or “pinch out” at some point under the site. The

subsurface materials to the south are laden with fluvial deposits and lack evidence of the same clay layers.

During the most recent investigation, soils were logged continuously in borings P-1 though P-26 from the surface to approximately 20 feet bgs. Generally, soils present in each boring consisted of a fill (light brown to black) sand to approximately 10 feet bgs underlain by silty to sandy clay to the approximately 19 to 20 feet. A wet, poorly-sorted, fine to coarse-grained sand with varying amounts of fine to medium-grained gravel was present from 19 feet to the terminus of the boring.

Water level measurements were taken from each well and boring on the site. In addition, each well and boring was surveyed for elevation. With this data, a potentiometric map depicting groundwater flow was created. Based on the data gathered in the field, groundwater flow in the north and northwest portions of the site appears to flow to the southeast. Groundwater in the southwest corner and the property adjoining to the south appears to flow to the southwest toward the East Fork White River. Geologic cross sections from earlier investigations indicate a “continuous” layer of clay and silty clays at depths of about 20 – 25 feet is present in the northwest portion of the subject site, separating the groundwater into an upper and lower aquifer (Haley & Aldrich, 2008). This clay layer was not found in borings (B-21D and B-22D) and monitoring wells (MW-13 and 14) installed to the south of the site and near an existing monitoring well (MW-7D) on the site. However, this clay layer does create a perched aquifer that merges with the deeper aquifer found in the wells and borings along the southern boundary of the site, contributing to the apparent change in the groundwater flow direction.

2.6 Discussion of Identified Sources of Contamination

The specific sources of contamination are unknown but are generally from the former coal and coke operation and the former wood treating operation on the Subject Site. Lower level impacts may also be present from the foundry sand fill and coal storage activities. Identified impacts are primarily SVOCs, but also include low impact from metals and volatiles in the soil and groundwater.

The location of the greatest soil SVOC impacts above the ICL-Direct and Construction are in the southwest portion of the Subject Site. The groundwater impacts are also in the southwest portion of the Subject Site extending offsite to the south and southwest.

2.7 Summary of Extent of Contamination

Soil

Soil sampling for the 1999, 2002 and 2008 investigations was conducted by others and the results of the laboratory analyses are tabularized in Appendix A through C. In addition, locations of soil borings are also illustrated on figures included in Appendix A through C.

Soil samples from on-site borings during older investigations were collected at depths where elevated photoionization detector readings were noted and recorded. Laboratory results for on-site soil samples were compared to the IDCLs.

Soil samples from borings SB-4, SB-6 through SB-10 conducted by Sieco, Inc. were reported to exceed the IDCL for one or more parameters at multiple depths. Sample depths exceeding the IDCL in these borings ranged from the 3 feet to 22 feet below ground surface.

Soil samples collected by August Mack Environmental from borings B-17, B-20, and B-21 were also reported to exceed the IDCL for one or more parameters at multiple depths.

Soil samples from borings MW-2, MW-4, MW-6, MW-7, MW-12, HAB-8, HAB-12, HAB-13, and HAB-15 conducted by Haley and Aldrich were reported to exceed the IDCL for one or more parameters. Sample depths exceeding the IDCL in these borings occur at the surface and apparent smear zone at 20 feet below ground surface.

In general, surface soil consists of fill and is not suspected to be impacted. Six (6) soil samples were collected from the 0-2 foot interval (MW-1 to

MW-5 and MW-7D) and analyzed for COCs. Only one sample and analyte exceeded the ICL-direct. Monitoring well MW-2 at 0-2 feet was reported at 1.6 ppm benzo(a)pyrene (ICL-direct = 1.5 ppm).

During delineation sampling, the soils were better characterized as to the vertical depth and lateral extent of SVOC impacts. Furthermore, soil impacts were delineated and soil volumes were estimated for soils containing greater than ICL-Direct value of 54 ppm PCP, other soils containing SVOCs greater than ICL-Direct and Construction, and clean overburden soils. Soil impacts and delineations are summarized in Table 1 and on Figures 4 and 5.

Groundwater

Groundwater sampling was conducted by BCA and others. The results of the laboratory analyses are tabularized in Appendix A through D. Additionally, locations of the borings / monitoring wells are also shown on figures in Appendix A through D.

A total of 15 borings were converted to 2-inch monitoring wells located on and off-site. Groundwater impacts above the IDCLs present in the borings / monitoring wells to date include SB-7 through SB-11, B-14 through B-17, B-19, B-20, MW-2, MW-4, MW-6, MW-7DD, MW-13 (D), MW-14 (D), B-21D, B-22D, and B-23. Laboratory results show a groundwater plume extending from the Subject Site and on the railroad property to the south and southwest directions. The limits of the plume are defined downgradient of the Subject Site to the southeast, south, and southwest by groundwater samples collected from the water table in borings B-25, B-24, and B-23, respectively. However, groundwater collected from MW-13 and MW-14 placed at the bottom of the aquifer above the bedrock surface indicated naphthalene was present at concentrations of 3,410 ppb and 446 ppb, respectively. Recently, two (2) groundwater points, SB-28 and SB-29, were installed west and southwest of the Subject Site. Both groundwater sample results indicated COCs were less than RDCLs.

COC's exceeding IDCLs in the groundwater collected from monitoring wells include benzene, naphthalene, methylphenol, pentachlorophenol,

and benzo(a)pyrene.

2.8 Summary of Risks Associated with Site

The primary affect of absorbed and residual phase unsaturated soil impacts under the site is continuous leaching from the soil, migrating to groundwater, and further migration of the impacted groundwater off-site.

Groundwater in the water bearing unit under and near the site is a surficial sand and gravel aquifer. Residual contamination has the potential to affect human health at the site or at surrounding sites.

2.9 Human, Ecological, and Environmental Risks

Groundwater in the water bearing unit under and near the site is a drinking water source aquifer, however, the active drinking water source wells are located in Lincoln Park approximately 1.75 miles northeast and Bartholomew County 4-H Fairgrounds located approximately 2 miles southwest of the Subject Site.

Inhalation Exposure Pathway

There is a potential for inhalation exposure to migrating VOC vapor (i.e. naphthalene) for building occupants over the impacted soil and groundwater plume. However, there are no occupied buildings within the known plume area. The closest occupied building is the office building west of Lafayette Street from the Subject Site. It is likely outside the plume. The presence of the sandy/silty clay layer reduces the potential for vapor migration from the water table and on-site remediation activities are expected to further reduce potential for vapor migration.

Ingestion Exposure Pathway

It is unlikely that ingestion is a risk to humans for the site because the locations of the drinking water supply well fields. All adjoining and down-gradient sites are non-residential and have access to City water. An environmental restrictive covenant (ERC) will be

attached to the property deeds for subject and nearby sites prohibiting groundwater usage as drinking water.

Direct Exposure Pathway

There is little or no risk of direct exposure since the surface soil (surface to 6 inches) is nearly all below the ICL-Direct. There is a potential for dermal exposure for construction workers at the Subject Site from subsurface soils. Dermal exposure prevention during soil excavation activities will be addressed in the site health and safety plan. After completion of remediation the asphalt parking lot will further inhibit direct soil exposure.

The ecological risks are remote, however, the following exposures could occur:

Potential Impacts to Aquatic Life

There are no known potential impacts to aquatic life associated with documented contamination at the Subject Site.

Potential Impacts to Wildlife and Vegetation

Burrowing animals on the subject site may be exposed to impacted soil and vapors. Plants rooted deep in the soil may accumulate hydrocarbons which can bio accumulate in herbivores. After remediation potential for on-site exposure will be eliminated and potential exposure off-site reduced.

2.10 Future Land Use Impacts

Existing contamination at the site constitute a legal liability for prospective buyers of the property. Human health impacts to site occupants, construction workers and potential groundwater users are also possible from current site conditions. Impact to wildlife and ecology, though remote, are also possible from current site conditions.

2.11 Summary of Background Concentration

No investigation of background concentrations was done as part of this investigation. Contaminants present at the Subject Site (SVOCs) are not

believed to be from naturally occurring or background influences. However, a potential of unrelated groundwater impacts is present to the east.

2.12 Additional Field Investigation Requirements

The vadose soil impacted area has been identified on-site. No additional field investigations are required prior to vadose soil remediation. However, additional monitoring well sampling may be necessary to monitor groundwater concentrations and movement.

3.0 REMEDIATION PLAN

3.1 Evaluation of Remedial Alternatives in Vadose Soil

A remedial strategy for this site must address coal and wood treating constituents (SVOCs) above ICL-Direct from the surface to 10 feet bgs and (SVOCs except PCP) above ICL-Construction from 10 to 20 feet bgs in the overlying fill material and unsaturated sandy to silty clay unit at the Subject Site.

Impacted soils are located in the southwestern portion of the site (i.e. Subject Site) and extend from as shallow as approximately 2 feet bgs to the water table. The vadose soil impacted area acts as a continuing source of contaminants to the underlying groundwater. Figures 5B and 5C identify the approximate location of the impacted area.

Included below are seven (7) remedial options:

(1) Soil Vapor Extraction

Soil Vapor Extraction (SVE) is a very effective means of mass removal of VOCs from the vadose zone. Although ideal conditions are permeable coarse-grained soils, it is also reasonable effective in finer grained soils such as the silt and sandy silt found in the vadose zone at the site. The lower permeability means that higher vacuums must be used to achieve acceptable radii of influence. Higher vacuums result in groundwater elevation cones which reduce the effectiveness of the SVE system. This tendency can be countered by a higher density of SVE wells and the use of air recharge wells. The air recharge wells will allow the use of a lower vacuum resulting in a lower radius of influence. This technology is costly compared to the other technologies

(2) SVE with Water Level Suppression

By installing a groundwater extraction pump in the SVE well the groundwater level can be suppressed and the effectiveness of the SVE system maximized. This allows higher vacuums, air flow rates and radii of

influence and would remediate the soil more rapidly than SVE alone. This system would pump a larger volume of water needing to be treated, would be more complex and more costly to install and operate.

(3) Bioremediation

Bioremediation of impacted unsaturated soils may be accomplished by excavating and spreading the soils on the site. By creating “biocells” and adding nutrients to the impacted soils, with time it may be possible to remediate the site to less than ICL-migration. This remedial technology is labor-intensive, requires ample land space, and is seasonal at best. The soil constituents are non-ideal, since they are predominantly PAHs and pentachlorophenol, which are low volatility and resistant to biodegradation. The type of soil (i.e. silty to sandy clay) also increases the time to remediate. The problems inherent with this remedial method include on-going soil sampling, runoff and drainage issues, and unable to bio-remediate because of below freezing temperatures. This option was not chosen due to these issues.

(4) Soil Excavation / Disposal

All impacted soils above the clean-up goals could be excavated and transported for treatment and/or disposal at landfills. Since a large amount of the soil (roughly 5370 tons) contains PCP >54 ppm (the contained in policy limit) the soil would have to be treated as hazardous waste. Most of that soil exceeds treatment limits and would have to be incinerated. This option is cost-prohibitive.

(5) Soil Excavation / Disposal and Ex-situ Soil S/S

Another option for remediation of on-site vadose soil is source removal / disposal of soil containing other SVOCs (i.e. naphthalene, benzo(a)pyrene, and benzo(a)anthracene) greater than ICL-Direct and greater than ICL-Construction coupled with ex-situ soil S/S of soil containing greater than ICL-direct of PCP at 54 ppm.

Removal of impacted soils on-site is limited by the property lines to the

west and south and by the water table. Soil impact removal is also limited by the depth of the excavation and side slope excavation. Some impacted soil above the ICL-Direct or Construction values would be left above the water table, along the south and west property boundaries. It is assumed that the side slope excavation would extend to 10 feet from the property lines. Unstable soils (i.e. sandy fill) extending from 10 to 12 feet near both the west and south property lines will inhibit setbacks equal to a 1 to 1 slope. Furthermore, it is not clear that IDEM would regard the mixing box as a "container" under Resource Conservation Recovery Act (RCRA). If not, then treatment of the PCP >54 ppm would qualify as RCRA Temporary Storage and Disposal (TSD). If the mixing box is a "container" then several additional requirements would apply including Land Disposal Restriction (LDR) limits. Using this technology would be either costly or not feasible and therefore is discounted.

(6) In-situ Soil S/S of All Impacted Soils

A cost competitive option is to treat all the impacted soil (i.e. above ICL-Direct and Construction for SVOCs other than PCP and above ICL-Direct for PCP > 54 mg/kg). Although using this treatment method is more costly because more soil is treated, it requires less confirmation sampling due to only sampling of clean soil overburden and PCP greater than 54 mg/kg. This in-situ soil S/S method of remediation is accepted by the IDEM and also provides a cohesive, homogeneous mixture of the impacted soil and amendments over the entire treatment area. This option is only slightly more expensive than option 7 below.

(7) Soil Excavation / Disposal and In-situ Soil S/S

The lowest cost option considered is source removal / disposal of soil containing SVOCs greater than ICL-Direct and Construction and in-situ S/S of soil containing greater than ICL-direct of PCP at 54 ppm.

Removal of impacted soils on-site is still limited by the property lines to the west and south. However, in-situ soil S/S has the capability of treating soils in-place. Soil excavation would be limited to SVOC-impacted soil greater than ICL-Direct at an average depth of 12 feet. In-situ soil S/S will

treat the PCP impacted soil above ICL-direct from an average of 12 feet to the water table. Using in-situ soil S/S allows for treatment at the property lines and within the water table.

The future end use of the impacted area will be a parking lot. Source removal by excavation / disposal and in-situ soil S/S will allow clean fill material to replace the impacted soil above the ICL-migration, treat the impacted soil above ICL-direct for PCP, and allow for a new sub-grade elevation to be established for the parking lot.

3.2 Selected Remediation Option

Options 1 through 5 discussed above were discounted because they are unlikely to be effective or cost prohibitive. Soil excavation/disposal and in-situ soil S/S (Option 7 above) appears to be the most cost effective and feasible technology and returns the site to re-use as a parking lot.

3.3 Identified Technology

Soil excavation/disposal and in-situ soil S/S are the identified technology for the Subject Site. In-situ S/S was selected for the site due to its low-cost relative to the other treatment technologies (such as incineration), ability to treat the contaminants in-place, and lower emissions risk relative to hazardous waste incineration.

The remediation method will remove or treat the bulk of the impacted unsaturated soil inhibiting further leaching of contaminants to the groundwater. Furthermore, the end use of the Subject Site is a parking lot. The parking lot will reduce further leaching from the unsaturated soil to the groundwater. The top layer of backfill and the parking lot construction will result in a cap the also prevents direct exposure to the residual constituents in the vadose zone soils.

3.4 Risk Assessment

No site specific Risk assessment is anticipated.

3.5 Description of Remediation Technology

Remedial Design

The direct exposure pathway will be eliminated by covering all soil on the site with at least one foot of clean soil plus a paved parking lot. The direct exposure pathway will be further reduced or eliminated by the removal or treatment of all soil exceeding the ICL-Direct from the surface to 10 feet bgs, ICL-Construction from 10 to 20 feet bgs, or an ICL-Direct value for PCP. Migration to groundwater exposure will be reduced by removal or treatment of impacted soil since the treatment is designed to greatly reduce potential for leaching to groundwater. In addition, the treatment will greatly reduce permeability of the impacted soil. Finally, the parking lot surface will greatly reduce infiltration and thus potential leaching of residual constituents to groundwater.

The first phase of remediation will be removal of the clean overburden soil and impacted soil located in the southwest portion of the Site. This will be accomplished by removing and stockpiling clean overburden soils to an average depth of about eight (8) feet bgs across most of the impacted area. Outside of the impacted area, a 10-foot setback will be excavated on a 1 to 1 slope to facilitate OSHA regulations and provide for the safe removal of impacted soil (Figure 5A). The soil will be staged on-site next to the excavation, graded out and/or re-used as backfill.

The second phase of work will involve removing impacted soils containing SVOCs above ICL-Direct in the first 10 feet of soil and ICL-Construction values from 10 to 20 feet bgs. The soils will be removed typically from 8 to about 12 feet bgs across part of the impacted area (Figure 5B). The impacted soils will be transported for disposal to an approved (non-hazardous waste) landfill. Samples representative of the soil for landfill disposal have been analyzed. Additional samples will be provided if required.

The third phase of remediation will be in-situ soil S/S and will be applied to soils greater than 54 ppm PCP. Soil impacts extend below the “smear” zone at several locations. Therefore, in-situ soil S/S will typically start at

an average depth of about 12 feet and will extend to a depth of approximately 24 feet (four (4) feet into the groundwater table) at some locations (Figure 5C). It is anticipated that a mixture of 16% Portland cement (PC) and 6% powdered activated carbon (PAC) will be added to the PCP-impacted soil. A second (Tier II) treatability study will used to determine the optimal percentage of PC and PAC to be added to the soil. The final mix will be approved by IDEM prior to implementation.

Soil confirmation sampling will be conducted along the walls and bottom of the excavation. The design goal is for the 95% upper confidence level (UCL) concentration to be below the clean-up goals for each of the primary COCs.

The fourth phase of remediation will involve backfilling clean overburden soil and fill material from a commercial source or a City source. If needed, clean fill material will be transported to the site and backfilled in the excavation. The fill material will be brought to within 6 inches of final finish grade. Any soil remaining on-site that exceeds the ICL-direct for any parameter will be covered by at least one (1) foot of clean fill and the parking lot pavement.

After the fourth phase is completed, on-site monitoring wells that were destroyed will be replaced. Four rounds of groundwater samples will be collected from existing wells over a 2-year period.

Implementation

After the clean overburden soils and setbacks have been exhumed, stockpiled, and sampled, the impacted soil will be exhumed and stockpiled. Disposal sampling will be conducted of the soil exhibiting above ICL-Direct values for the first 10 feet and ICL-Construction values from 10 to 20 feet bgs. Upon receiving the soil results, the impacted soil will transported for disposal at an approved landfill.

After the impacted soil has been disposed, confirmation soil sampling will be conducted to demarcate between the soils containing SVOCs above the ICL-Direct and Construction values and the impacted soil greater than ICL-Direct values for PCP. Upon receiving the soil results, residual soils

that still exceed the ICL-Direct or Construction values will be removed and transported to an approved landfill. PCP - impacted soil above 54 mg/kg will be treated with in-situ soil S/S.

The impacted soil is delineated by the following non-impacted borings; P-2, P-3, P-5, P-12, P-13, P-16, P-22, and P-25. Removing the clean overburden and impacted soil will be accomplished by the following steps:

- Excavating clean (below the SVOC ICL-Direct and Construction values) overburden soil (approximately 5,800 tons) to average depth of eight (8) feet bgs will be stockpiled on-site for return to the excavation;
- Sample and analyze clean overburden soil for SVOCs to confirm status;
- Exhume impacted soil (> ICL-Direct and Construction values) in the impacted area as demonstrated by soil sampling results. The soil will be screened with a FID and staining will be noted to discern impacted soil that is greater than ICL-Direct or Construction values for SVOCs from ICL-Direct impacted soil with greater than 54 mg/kg for PCP. It was estimated from the delineation sampling that 1,100 tons of SVOC-impacted soil will be removed for disposal at a Subtitle D landfill;
- Soil sampling for disposal will be done at a rate of one (1) per 100 tons for stockpiled impacted soil and analyzed for the SVOCs. The sampling results will confirm the soil is impacted with SVOCs greater than ICL-Direct or Construction values;
- Soil confirmation sampling will be conducted along the sidewalls and analyzed for SVOCs;
- Treating in-place soils containing greater than 54 ppm PCP using in-situ soil S/S. Total volume was estimated from delineation sampling of 5,400 tons;
- Backfill and compact with granular off-site fill and soils below the clean-up goal from on-site and returning the site to a new sub-grade elevation; and
- Construct asphalt paved parking lot.

In-situ Soil Solidification / Stabilization

In situ soil solidification / stabilization is a relatively new treatment technology used to treat metals, VOCs, and SVOCs (i.e. PCP) in soils. It's function is to physically bind and chemically treat the contaminants resulting in a homogeneous, cement-like structure in the subsurface.

A Tier I S/S treatability study demonstrated the feasibility of the technology (see Section 1.8 Delineation Sampling Tier I Treatability). Once the Tier II study is completed, the optimal PC and PAC will be selected to treat the worst areas. In order to save costs, the lower-impacted soils (identified during the delineation sampling event) may be treated with lower percentages of PC and PAC.

The treatment area as shown in Figure 5C includes a soil volume containing PCP >54 ppm of approximately 5,300 tons. The PCP-impacted soil lies at about 8 feet and continues downward to the water table in four (4) of the seven (7) borings and exists from 8 feet to approximately 14 feet in the remaining borings. Because of the large soil volume, the in-situ S/S technology requires equipment capable of treating the soil thoroughly and expeditiously. The equipment necessary to complete the task consists of one (1) of two (2) types; 1) a hydraulic excavator with an attached blender/mixer, and, 2) large diameter soil augers. Both equipment types require a delivery system that can pump the mixture of amendments (PC and PAC percentages from the Tier II study) to the blender/auger head. Also, both equipment types require augering/blending in an overlapping and vertical pattern to insure all contaminants are treated. The resulting treatment consists of a homogeneous structure with a low-permeability and leachability.

The S/S admixture rates for more impacted soils shall be selected based on those which achieve the following targets in the Tier II Treatability Study:

- Permeability = 10^{-6} cm/sec
- Unconfined compressive strength = 50 psi
- Leachability = 97% reduction or <IDCL

The S/S admixture rates for low impacted soils shall be selected based on

those which achieve the following targets in the Tier II Treatability Study:

- Permeability = 10^{-5} cm/sec
- Unconfined compressive strength = 50 psi
- Leachability reduction = 90%

After the soil S/S is applied to the treatment area and allowed to cure, clean soil overburden and City-source backfill material, if necessary, will be placed on the treated area, compacted, and brought up to sub-grade elevation.

Permit Requirements/Disposal Approval

A "contained in" rule determination letter is required from the IDEM/OSW/RCRA section confirming that soil containing constituents common to creosote as well as coal and related products is not a listed hazardous waste. The letter must also indicate that soil containing PCP <54 mg/kg PCP may be disposed at a non-hazardous waste landfill.

The disposal facility will be contacted to determine the data needs for waste characterization. Under most circumstances the required test is for the VOCs, SVOCs and metals to be analyzed following extraction using the toxicity characteristic leaching procedure (TCLP), corrosivity, flammability, and reactivity. Two (2) representative soil samples were collected during the delineation sampling and analyzed for the above parameters and were confirmed to be non-hazardous with respect to characteristic. The results will be provided to the landfill, as required. The impacted soil will be exhumed, loaded into trucks, and transported to the approved landfill (non-hazardous) under the appropriate manifesting requirements.

An environmental restrictive covenant (ERC) will be necessary to prohibit the installation of drinking water wells in the plume area and an asphalt maintenance schedule prohibiting the direct exposure of residual impacted soil.

Soil Exhumation and Transportation

The vertical and horizontal extent of the impacted area will be marked in the field. After utility clearance, excavation equipment will be mobilized to the site. Exhumed soil will be collected and screened in the field using the FID. Soils expected to be below the ICL-Direct or Construction values for SVOCs will be segregated and soils expected to be above the ICL-Direct or Construction values for SVOCs will be stockpiled, sampled, and analyzed for site SVOCs and loaded onto trucks for disposal at an approved landfill.

Removal of the soil will be visually observed by the owner's representative. Monitoring will be done by observing contractor work, disposal and confirmatory soil sampling, and photographing conditions prior to backfilling the excavations. Subsequently, the excavations will be backfilled and compacted to within 6 inches of final grade with clean off-site granular backfill and non-impacted soil staged on-site. If needed, granular backfill will be obtained from a commercial source such as a gravel pit and the source will be documented. Clean overburden will be confirmed at a rate of two samples plus one sample per 500 tons.

Monitoring wells damaged or exhumed will be replaced within five (5) feet of its original location.

Excavation and backfilling work will comply with state and federal health and safety requirements.

3.6 Monitoring and Sampling Plan

Soil Stabilization / Solidification Treatment

Monitoring to demonstrate compliance with this RWP will include monitoring and documenting the rates/amounts of PC and PAC added to the mixtures and the mixing time for each vertical location.

Soil Closure

Soil samples will be collected from the walls and bottom, where

appropriate, of the excavation at 20-foot intervals. The soil samples will be analyzed for SVOCs as discussed below. Soil closure sampling and Level IV QA/QC requirements will be followed.

Stockpiled clean overburden soil will be analyzed for SVOCs to confirm that their respective COCs are below ICL-Direct values for remaining on-site.

The final measure of soil cleanup will be based on analytical results from soil samples. Soil samples will be collected within the impacted soil excavation area at discrete locations as directed by RISC. Soil will meet ICL-Direct or Construction closure levels within the limits of the Subject Site. Compliance with closure levels will be determined statistically.

Groundwater Monitoring

After completion of the impacted soil removal / treatment activities, replacement monitoring wells will be installed and groundwater sampling will be conducted and analyzed for SVOCs. Groundwater monitoring will be conducted for four (4) consecutive semesters. Samples will be collected using low flow sampling protocol to the extent possible. Final groundwater samples will meet Level IV QA/QC requirements.

Groundwater Closure

A determination will be made as to groundwater closure after the four (4) rounds of groundwater sampling is completed.

3.7 Project Work Schedule

An approximate schedule for implementation of the RWP is presented below.

1. September 20, 2011:
   Submit Revised RWP
2. October 14, 2011:
   IDEM RWP approval
3. November 1, 2011:

Release of Bid Specifications

4. December 31, 2011:
   Contract Signed
5. March 15, 2012:
   Contractor mobilized to site.
6. March 15 to May 15, 2012:
   Soil excavation / sampling / disposal, soil in-situ S/S treatment, soil confirmation sampling, and backfilling
7. May 15 to June 15 2012:
   Site grading, filling, and parking lot construction.
8. July 15 2012:
   Remediation/Closure Report
9. 2012 to 2014
   Semi-annual Groundwater Sampling
10. 2014:
    Groundwater Closure Report

3.8 Data Management

Data from the disposal and confirmation sampling at the site will be submitted as tables, figures and copies of the laboratory report will be provided for approval. For the final excavation closure, copies of the laboratory reports, chain-of-custody, data summary tables, and sample location map will be submitted with the Closure Report.

3.9 Community Relations

The primary purpose of a community relations plan is to provide a means of informing the public regarding the project. The main components include release of the Revised RWP and public meetings associated with the release and approval of bids for the remediation of the Subject Site. The meetings will be held prior to approval of the public works contract for the soil remediation by the Columbus Redevelopment Commission. All CRC board meetings are open to the public. City officials and public bodies (Mayor and City Council) will be kept apprised of the status of the

project by means of internal progress reports. All reports are public documents and will be provided as requested.

3.10 Quality Assurance Project Plan

The site-specific QAPP is provided in Appendix H.

3.11 Site HASP

A site-specific Health and Safety Plan (HASP) is attached as Appendix I. The project will comply with IDEM and OSHA safety guidance where applicable.

3.12 Closure Report

A Closure Report detailing the excavation and sampling will be submitted upon completion. The report will include a summary of soil remedial activities performed and will present the soil sampling results in tabular form, with the full analytical laboratory reports attached. A final Groundwater Sampling/Closure Report will be submitted at the completion of four semi-annual rounds of groundwater sampling.

3.13 Future Property Use

The City intends to convert the site to a parking lot for the planned adjacent recreational center.

4.0 REFERENCES

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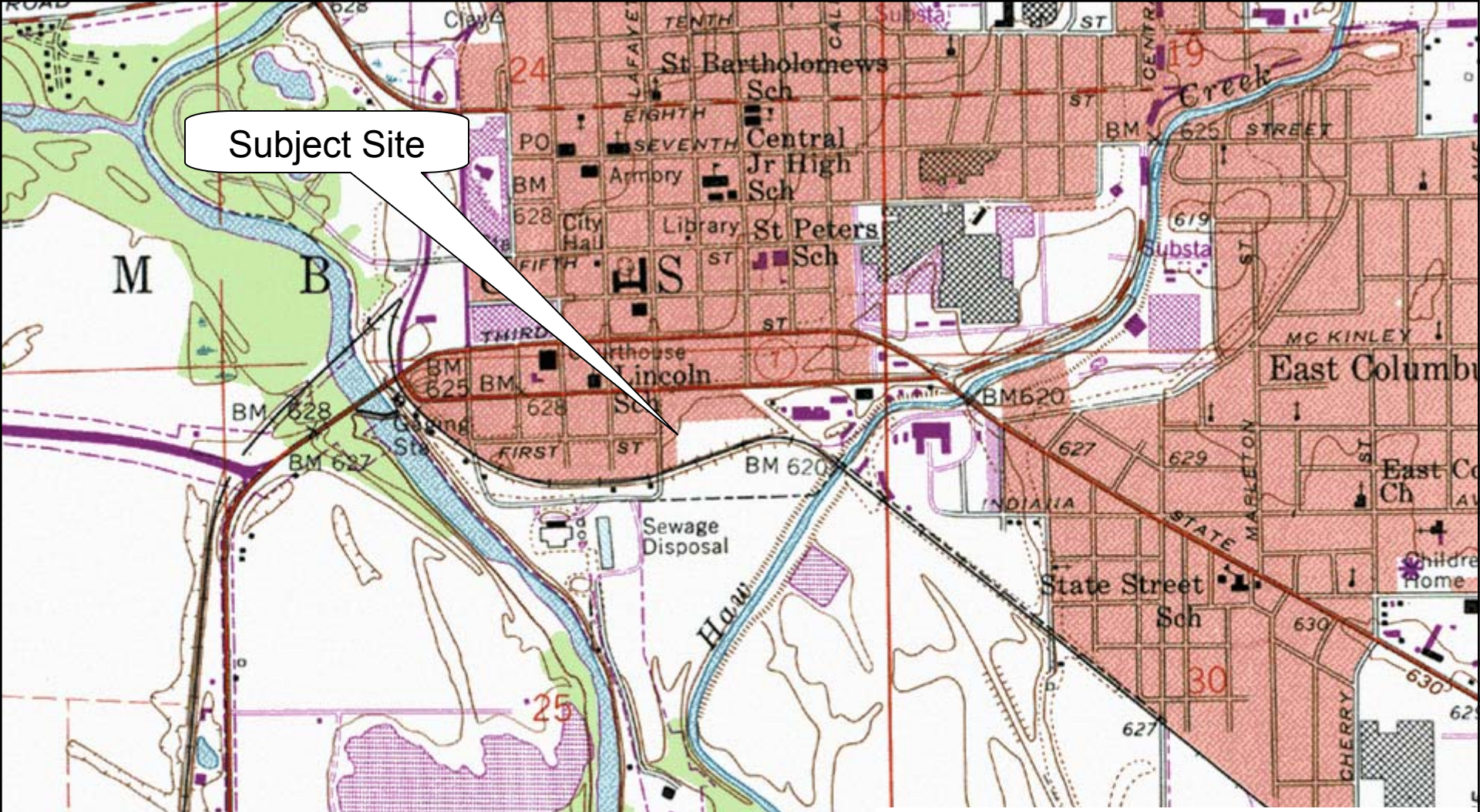
(Sieco, 1999b). Sieco, Inc., *Phase II Site Investigation, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana* October, 1999.

Figures



Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

APPROXIMATE SCALE: NTS

DRAWN BY: D Scovel

DATE: 3/8/10

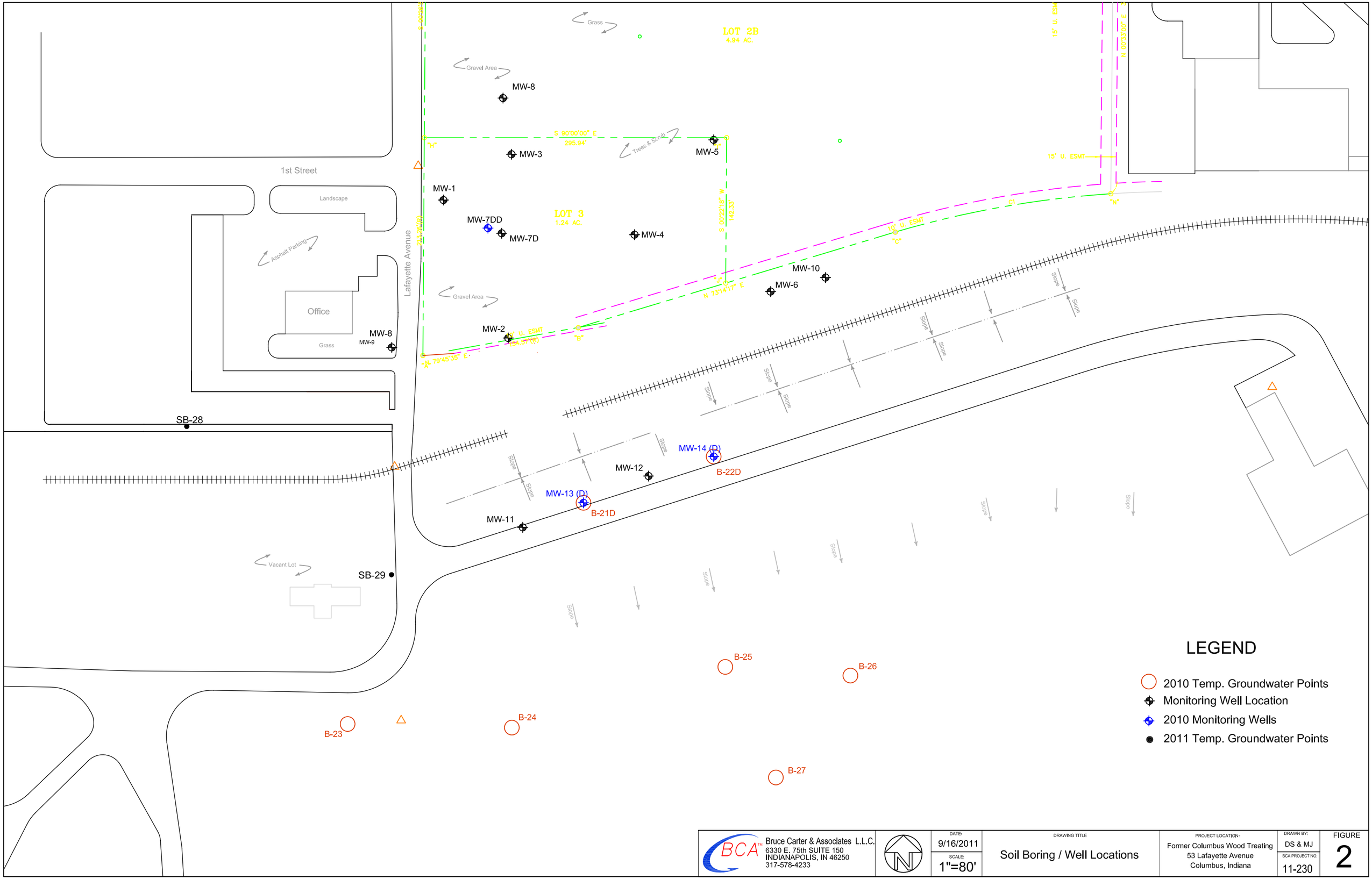
BCA PROJECT NO. 10-024

DRAWING TITLE

SITE LOCATION MAP

PROJECT LOCATION:
Former Columbus Creosote
705 2nd St
Columbus, Indiana

FIGURE 1



LEGEND

- 2010 Temp. Groundwater Points
- Monitoring Well Location
- 2010 Monitoring Wells
- 2011 Temp. Groundwater Points

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 9/16/2011 SCALE: 1"=80'	DRAWING TITLE: Soil Boring / Well Locations	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 2

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-12

P-18

P-19

P-11

P-10

P-9

P-20

P-8

P-24

P-25

P-26

Trees & Brush

P-23

MW-4

P-22

S 00°22'18" W

142.33'

"J"

N 73°14'17" E

Gravel Area

P-5

P-7

P-6

P-21

P-4

P-3

P-2

20' U. ESMT

124.57'(R)

MW-2

"B"

Trees & Brush

N 79°45'35" E

P-1

"A"

Slope

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

• Power Pole

0 30

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 9/16/2011 SCALE: 1"=30'	DRAWING TITLE: Site Map with Borings / Monitoring Wells	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 3

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

213.26'(R)

S 90°00'00" E

295.94'

S 00°22'18" W

142.33'

N 73°14'17" E

254.57'(R)

N 79°45'35" E

"A"

"B"

"J"

MW-1

MW-3

MW-5

MW-7DD

MW-7D

MW-4

MW-2

Trees & Shrubs

Gravel Area

Trees & Shrubs

<ICL-D

P-1 <ICL-D

P-2 <ICL-D

P-3 <ICL-D

P-4

P-4 (10-11)	< 0.67
P-4 (11-12)	4.83
P-4 (15-16)	246
P-4 (18-19)	80.2

P-5 <ICL-D

P-6 <ICL-D

P-7

P-8 <ICL-D

P-9 <ICL-D

P-10

P-10 (2-4)	< 0.56
P-10 (6-8)	484
P10 (8-10)	13.2
P-10 (10-12)	14
P-10 (14-16)	70.4

P-11

P-11 (2-4)	< 0.53
P-11 (6-8)	< 0.58
P-11 (9-10)	1,040
P-11D (9-10)	1,650
P-11 (14-16)	72.2
P-11 (18-19)	< 6.30

P-12 <ICL-D

P-13 <ICL-D

P-14 <ICL-D

P-15 <ICL-D

P-16 <ICL-D

P-17 <ICL-D

P-18 <ICL-D

P-19

P-19 (6-8)	< 0.57
P-19 (10-12)	232
P-19 (12-14)	3.43
P-19 (16-18)	4.03

P-20

P-20 (8-10)	57
P-20 (10-12)	< 0.62
P-20 (16-18)	< 0.60

P-21

P-21 (8-10)	< 0.60
P-21 (10-12)	< 0.68
P-21 (14-16)	2,350
P-21D (14-16)	1,100

P-22 <ICL-D

P-23 <ICL-D

P-24

P-24 (7-8)	< 1.74
P-24 (11-12)	679
P-24 (15-16)	< 19.3
P-24 (18-19)	< 19.3

P-25 <ICL-D

P-26 <ICL-D

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

PCP - Pentachlorophenol

Concentrations in mg/kg or ppm

P-9 (19-20) 484 Probe # (Depth)/Conc.

>ICL Direct (54.0)

<ICL-D Less than ICL-Direct

Slope

0 30

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 9/16/2011

SCALE: 1"=30'

DRAWING TITLE: PCP in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Avenue, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 11-230

FIGURE 4A

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

S 90°00'00" E

295.94'

213.26'(R)

S 00°22'18" W

142.33'

"I"

"J"

"A"

"B"

N 73°14'17" E

N 79°45'35" E

254.57'(R)

20' U. ESMT

MW-1

MW-2

MW-3

MW-4

MW-5

MW-7D

MW-7DD

Trees & Shrubs

Gravel Area

Trees & Shrubs

P-1 <ICL-D

P-2

P-3 <ICL-D

P-4 <ICL-D

P-5 <ICL-D

P-6 <ICL-D

P-7

P-8 <ICL-D

P-9 <ICL-D

P-10 <ICL-D

P-11 <ICL-D

P-12 <ICL-D

P-13 MW-7DD <ICL-D

P-14 <ICL-D

P-15 <ICL-D

P-16 <ICL-D

P-17 <ICL-D

P-18 <ICL-D

P-19 <ICL-D

P-20 <ICL-D

P-21

P-22 <ICL-D

P-23 <ICL-D

P-24 <ICL-D

P-25 <ICL-D

P-26 <ICL-D

P-21 (8-10)	1.38
P-21 (10-12)	0.59
P-21 (14-16)	25,660
P-21D (14-16)	22,120

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

<ICL-D Less than ICL-Direct

P-21 (14-16) 25,660 Probe # (Depth)/Conc. > ICL-Construction (17,000)

Concentrations in mg/kg or ppm

Slope

0 30

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 9/16/2011

SCALE: 1"=30'

DRAWING TITLE: Naphthalene in Soil

PROJECT LOCATION: Former Columbus Wood Treating
53 Lafayette Avenue
Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 11-230

FIGURE 4B

1st Street

Landscape

Asphalt Parking

Office

Grass

Lafayette Avenue

213.26'(R)

S 90°00'00" E

295.94'

S 00°22'18" W

142.33'

N 79°45'[illegible]

154.57'(R)

N 73°14'17" E

"A"

"B"

"J"

MW-1

MW-2

MW-3

MW-4

MW-5

MW-7D

MW-7DD

MW-9

Trees & Shrubs

Trees & Shrubs

P-5 (13-14)	< 0.38
P-5 (14-15)	4.24

P-5

P-6 (2-4)	< 0.38
P-6 (9-10)	530
P6 (12-14)	6.01
P-6 (17.5-18.5)	12.9

P-6

P-7 (2-4)	< 0.36
P-7 (6-8)	< 0.35
P-7 (10-12)	5.74
P-7 (14-16)	11.6
P-7 (16-18)	0.67
P-7D (16-18)	3.78

P-7

P-1 (8-9)	3.85
P-1 (12-14)	< 0.40
P-1 (16-18)	< 0.39

P-1*

P-2 (2-4)	< 0.36
P-2 (6-8)	< 0.35
P-2 (10-12)	5.74
P-2 (14-16)	11.6
P-2 (16-18)	0.67
P-2D (16-18)	3.78

P-2

20' U. ESMT

P-3 (2-4)	< 0.36
P-3 (6-8)	< 0.35
P-3 (10-12)	< 0.37
P-3 (14-16)	1.85
P-3 (18-19)	6.12

P-3

P-4 (10-11)	< 0.44
P-4 (11-12)	0.96
P-4 (15-16)	47.2
P-4 (18-19)	4.17

P-4

P-8 (2-4)	< 0.35
P-8 (6-8)	< 0.37
P-8 (10-12)	1.31
P-8 (14-16)	1.79

P-8

P-9 (2-4)	1.78
P-9 (6-8)	< 0.35
P-9 (10-12)	< 0.34
P-9 (19-20)	< 0.45

P-9*

P-10 (2-4)	< 0.37
P-10 (6-8)	42.1
P10 (8-10)	4.92
P-10 (10-12)	< 3.70
P-10 (14-16)	4.2

P-10

P-11 (2-4)	< 0.35
P-11 (6-8)	< 0.38
P-11 (9-10)	108
P-11D (9-10)	177
P-11 (14-16)	6.37
P-11 (18-19)	4.47

P-11

P-19 (6-8)	0.53
P-19 (10-12)	156
P-19 (12-14)	0.86
P-19 (16-18)	0.75

P-19

P-20 (8-10)	8.93
P-20 (10-12)	< 0.41
P-20 (16-18)	< 0.40

P-20

P-21 (8-10)	< 0.40
P-21 (10-12)	1.7
P-21 (14-16)	739
P-21D (14-16)	558

P-21

P-24 (7-8)	<0.36
P-24 (11-12)	177
P-24 (15-16)	< 4.00
P-24 (18-19)	7.22

P-24

P-25 (10.5-11.0)	< 0.38
P-25 (13-14)	1.92
P-25 (17-18)	< 0.41

P-25

P-26 (9-10)	17.2
P-26 (13-14)	98.1
P-26 (17-18)	0.77

P-26

<ICL-D

P-12 P-13 P-14 P-15 P-16 P-17 P-18 P-22 P-23

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

<ICL-D Less than ICL-Direct

P-1* Potential Exposure Concentration

P-10 (6-8) 4.2 Probe # (Depth)/Conc. > ICL-Direct (1.5)

P-10 (14-16) 108 Probe # (Depth)/Conc. > ICL-Construction (79)

Concentrations in mg/kg or ppm

0 30

Slope

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 9/16/2011

SCALE: 1"=30'

DRAWING TITLE: Benzo(a)pyrene in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Avenue, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 11-230

FIGURE 4C

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

213.26'(R)

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

Trees & Shrubs

S 00°22'18" W

142.33'

MW-4

MW-7DD

MW-7D

P-11 (2-4)	< 0.35
P-11 (6-8)	< 0.38
P-11 (9-10)	**163**
P-11D (9-10)	**240**
P-11 (14-16)	**10.7**
P-11 (18-19)	**7.38**

P-19 (6-8)	< 0.38
P-19 (10-12)	**288**
P-19 (12-14)	**1.43**
P-19 (16-18)	**1.41**

P-24 (7-8)	< 0.36
P-24 (11-12)	**346**
P-24 (15-16)	**5.43**
P-24 (18-19)	**12.5**

P-10 (2-4)	< 0.37
P-10 (6-8)	**85.1**
P10 (8-10)	**5.38**
P-10 (10-12)	**3.74**
P-10 (14-16)	**8.7**

P-6 (2-4)	< 0.38
P-6 (9-10)	**1,186**
P6 (12-14)	**7.61**
P-6 (17.5-18.5)	**23.9**

P-2 (2-4)	**0.64**
P-2 (6-8)	< 0.35
P-2 (10-12)	**42.8**
P-2 (14-16)	**23.9**
P-2 (16-18)	**0.47**
P-2D (16-18)	**6.5**

P-21 (8-10)	< 0.40
P-21 (10-12)	**1.13**
P-21 (14-16)	**1,545**
P-21D (14-16)	**1,406**

P-26 (9-10)	**10.8**
P-26 (13-14)	**64.2**
P-26 (17-18)	**1.56**

P-4 (10-11)	< 0.44
P-4 (11-12)	**1.71**
P-4 (15-16)	**131**
P-4 (18-19)	**50.5**

<ICL-D P-14 P-15 P-17 P-16 P-13 P-12 P-18 P-11 P-19 P-23 P-22 P-24 P-25 P-10 P-9 P-20 P-8 P-26 P-5 P-7 P-6 P-21 P-4 P-3 P-2 P-1

N 79°45'35" E

154.57'(R)

MW-2

"A"

"J"

N 73°14'17" E

Trees & Shrubs

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

<ICL-D Less than ICL Direct

P-4 (15-16) **50.5** Probe # (Depth)/Conc. > ICL-Direct (15.0)

P-6 (2-4) **1,186** Probe # (Depth)/Conc. > ICL-Construction (790)

Concentrations in mg/kg or ppm

Slope

0 30

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 9/16/2011

SCALE: 1"=30'

DRAWING TITLE: Benzo(a)anthracene in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Avenue, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 11-230

FIGURE 4D

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-18

P-12

P-19

(0-8)

P-11

(0-8)

(0-5)

P-10

P-9

Trees & Shrubs

P-23

MW-4

P-22

S 00°22'18" W

142.33'

(0-10)

P-24

P-25

P-20

(0-8)

(0-8)

P-8

P-26

(0-8)

Clean Soil Overburden

"J"

N 73°14'17" E

Refusal at 8 Feet

P-7

P-5

(0-7)

P-6

(0-11)

P-4

P-21

(0-12)

Trees & Shrubs

P-2 10' U. ESMT

P-3

N 79°45'35" E

154.57'(R)

MW-2

P-1

"A"

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-2 Soil Probe Location Within Clean Soil Overburden

Approximate Boundary of Clean Soil Overburden

(0-4) Approximate Depth Interval

Setback Area - 1:1 Slope

Slope

0 30

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 9/16/2011 SCALE: 1"=30'	DRAWING TITLE Soil < ICL-Direct (Clean Soil Overburden)	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 5A

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-12

P-18*

P-11

P-19

Trees & Shrubs

P-23 *

MW-4

P-22 *

S 00°22'18" W

142.33'

P-24

P-10

P-9

P-25

P-20

P-26

(9-17)

"J"

N 73°14'17" E

Refusal at 8 Feet

Gravel Area

P-7

P-8

Soil Excavation

P-5

(7-12)

P-6

P-21

P-4

P-3

P-2

20' U. ESMT

234.57'(R)

MW-2

Trees & Shrubs

N 79°45'35" E

P-1

"A"

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-2 Soil Probe Location Within Excavation Area

Approximate Boundary of Soil > ICL-Direct or Construction (Not Including PCP > 54 ppm)

(0-11) Approximate Depth Interval

0 30

Slope

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 9/16/2011

SCALE: 1"=30'

DRAWING TITLE: Soil > ICL-Direct or Construction

PROJECT LOCATION: Former Columbus Wood Treating
53 Lafayette Avenue
Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 11-230

FIGURE 5B

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Avenue

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

213.26'(R)

P-17

P-15

P-14

P-16

P-13

MW-7DD

MW-7D

P-18

P-12

Trees & Shrubs

P-23

MW-4

P-22

S 00°22'18" W

142.33'

(8-23)

P-11

P-19

(8-14)

(10-15)

P-24

(5-20)

P-10

PCP > 54 mg/kg

P-9

P-20

(8-12)

P-25

P-26

P-8

"J"

N 73°14'17" E

Gravel Area

P-7

P-5

P-6

P-21

(12-24)

P-4

(11-24)

"B"

P-3

P-2

10' U. ESMT

254.57'(R)

MW-2

Trees & Shrubs

N 79°45'35" E

P-1

"A"

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-2 Probe Containing PCP > 54 ppm

Approximate Boundary of PCP > 54 mg/kg

(13-20) Approximate Depth Interval PCP > 54 mg/kg

0 30

Slope

BCA Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	N	DATE: 9/16/2011 SCALE: 1"=30'	DRAWING TITLE: Approximate Boundary - PCP > 54 mg/kg	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 5C

Tables

TABLE 1A
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM PROBES P-1 - P-11
AUGUST 2, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Depth (in Feet)	Date Sampled	Lab Sample ID	Units in mg/kg (ppm) Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h) anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Construction				50,000	5,900	250,000	790	79	790	NA	7,900	31,000	79,000	79	1,800	18,000	NA	33,000	33,000	790	3,300	17,000	3,800	2,500	230,000	25,000
ICL-Direct				24,000	2,800	120,000	15	1.5	15	NA	150	690	1,500	1.5	980	9,800	NA	16,000	16,000	15	1,600	8,000	54	1,200	96,000	12,000
P-1 (8-9)	8-9	8/2/11	11-15470	< 0.38	1.06	0.97	2.79	3.85	5.71	1.52	1.68	< 0.75	3.26	0.68	< 0.38	< 0.38	< 0.38	2.36	< 0.38	1.47	< 0.38	< 0.38	< 0.57	0.89	< 0.38	2.81
P-1 (12-14)	12-14	8/2/11	11-15471	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.60	< 0.36	< 0.40	< 0.40
P-1 (16-18)	16-18	8/2/11	11-15472	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.78	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.59	< 0.35	< 0.39	< 0.39
P-2 (2-4)	2-4	8/2/11	11-15473	0.86	< 0.36	1.19	0.64	< 0.36	0.45	< 0.36	< 0.36	2.4	0.48	< 0.36	0.91	< 0.36	< 0.36	3.77	1.84	< 0.36	< 0.36	< 0.36	2.21	7.51	< 0.36	1.94
P-2 (6-8)	6-8	8/2/11	11-15474	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	0.8	0.69	< 0.54	1.01	< 0.35	< 0.35
P-2 (10-12)	10-12	8/2/11	11-15475	0.92	13.7	13.6	42.8	5.74	44.1	2.41	12.1	1.95	41.8	< 0.41	0.65	< 0.41	< 0.41	51.1	< 0.41	2.38	0.53	0.98	< 0.62	6.5	< 0.41	58.5
P-2 (14-16)	14-16	8/2/11	11-15476	66.8	< 0.38	5.55	23.9	11.6	18.9	< 0.38	0.81	16.3	3.34	< 0.38	52.2	< 0.38	< 0.38	85.4	69.4	0.38	2.21	3.06	< 0.57	159	< 0.38	67.4
P-2 (16-18)	16-18	8/2/11	11-15477	< 0.37	< 0.37	< 0.37	0.47	0.67	0.86	< 0.37	< 0.37	< 0.74	0.68	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	0.4	0.4	< 0.56	0.48	< 0.37	< 0.37
P-2D (16-18)	16-18	8/2/11	11-15478	16.7	< 3.70	10.4	6.5	3.78	3.86	< 3.70	< 3.70	6.07	6.07	< 3.70	14.9	< 3.70	< 3.70	33.3	23.6	< 3.70	< 3.70	< 3.70	< 5.60	69.6	< 3.70	21.4
P-3 (2-4)	2-4	8/2/11	11-15479	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	0.53	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	0.96	0.99	< 0.55	1.33	< 0.36	< 0.36
P-3 (6-8)	6-8	8/2/11	11-15480	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.70	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-3 (10-12)	10-12	8/2/11	11-15481	< 0.37	< 0.37	2.9	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	2.2	0.79	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.56	< 0.34	< 0.37	< 0.37
P-3 (14-16)	14-16	8/2/11	11-15482	1.64	1.44	1.45	1.01	1.85	2.48	0.89	0.52	1	0.86	< 0.38	1.18	< 0.38	< 0.38	2.43	1.73	0.94	0.8	2.23	3.26	3.78	< 0.38	1.35
P-3 (18-19)	18-19	8/2/11	11-15483	90.9	2.31	48.5	5.62	6.12	3.45	0.43	0.76	59.7	4.05	< 0.41	84.5	< 0.41	< 0.41	87.2	94	0.5	73.1	70.9	< 0.62	185	< 0.41	62.7
P-4 (10-11)	10-11	8/2/11	11-15484	0.92	< 0.44	0.76	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	0.97	< 0.44	< 0.44	1.69	< 0.44	< 0.44	1.12	1.07	< 0.44	1.49	1.47	< 0.67	3.78	< 0.44	0.74
P-4 (11-12)	11-12	8/2/11	11-15485	4.17	< 0.43	2.34	1.71	0.96	1.53	< 0.43	0.54	1.59	1.85	< 0.43	2.59	< 0.43	< 0.43	6.92	3.01	< 0.43	1.97	2.68	4.83	9.82	< 0.43	4.85
P-4 (15-16)	15-16	8/2/11	11-15513	1,110	17	333	131	47.2	85.5	11.4	21.7	327	123	< 3.90	716	< 3.90	< 3.90	637	812	12.5	685	1,080	246	1,280	< 3.90	617
P-4 (18-19)	18-19	8/2/11	11-15486	267	12.4	131	50.5	4.17	27.7	0.68	9.16	194	4.48	< 0.39	197	< 0.39	< 0.39	237	216	0.89	264	328	80.2	524	< 0.39	154
P-5 (13-14)	13-14	8/2/11	11-15487	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	0.58	< 0.35	< 0.38	< 0.38
P-5 (14-15)	14-15	8/2/11	11-15488	33.7	< 4.00	39.5	7.23	4.24	5.22	< 4.00	< 4.00	36.3	7.07	< 4.00	24	< 4.00	< 4.00	49.6	35.7	< 4.00	10.3	8.99	< 6.00	103	< 4.00	25.8
P-6 (2-4)	2-4	8/2/11	11-15489	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-6 (9-10)	9-10	8/2/11	11-15490	6,790	< 123	5296	1,186	530	675	159	321	5,346	1,022	< 123	4,259	< 123	< 123	4,877	5,728	157	2,198	3,568	< 186	8,272	< 123	4,877
P6 (12-14)	12-14	8/2/11	11-15514	43.6	< 4.10	114	7.61	6.01	4.4	< 4.10	< 4.10	109	11.5	< 4.10	40.4	< 4.10	< 4.10	52.3	53.5	< 4.10	20.6	59.3	< 6.20	144	< 4.10	38.2
P-6 (17.5-18.5)	17.5-18.5	8/2/11	11-15492	172	4.92	49.6	23.9	12.9	16.1	< 4.00	6.3	49.7	22.6	< 4.00	116	< 4.00	< 4.00	152	134	< 4.00	76.9	313	17.5	327	< 4.00	112
P-7 (2-4)	2-4	8/2/11	11-15493	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.55	< 0.33	< 0.36	< 0.36
P-7 (6-8)	6-8	8/2/11	11-15494	1.91	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	0.85	< 0.36	< 0.36	1.2	< 0.36	< 0.36	1.09	1.2	< 0.36	< 0.36	1.21	< 0.55	1.45	< 0.36	0.85
P-8 (2-4)	2-4	8/2/11	11-15495	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	0.37	0.39	< 0.54	0.37	< 0.35	< 0.35
P-8 (6-8)	6-8	8/2/11	11-15496	< 0.37	< 0.37	0.45	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.74	0.55	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	0.98	0.61	< 0.56	1.14	< 0.37	< 0.37
P-8 (10-12)	10-12	8/2/11	11-15497	5.1	0.42	5.86	1.12	1.31	2.05	0.89	0.78	2.33	1.29	< 0.40	4.74	< 0.40	< 0.40	6.99	5.42	0.82	4.42	8.92	< 0.60	13.9	< 0.40	5.46
P-8 (14-16)	14-16	8/2/11	11-15498	15.85	0.68	< 738	4.72	1.79	2.09	< 0.40	0.99	817	23	< 0.40	77.6	< 0.40	< 0.40	32.7	165	< 0.40	44.9	105	< 0.61	228	< 0.40	24.5
P-9 (2-4)	2-4	8/2/11	11-15499	< 0.37	0.45	0.64	1.44	1.78	2.49	0.79	0.85	< 0.73	1.73	< 0.37	< 0.37	< 0.37	< 0.37	5.63	< 0.37	0.77	< 0.37	< 0.37	< 0.56	1.79	< 0.37	5
P-9 (6-8)	6-8	8/2/11	11-15500	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-9 (10-12)	10-12	8/2/11	11-15501	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-9 (19-20)	19-20	8/2/11	11-15502	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.89	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.68	< 0.41	< 0.45	< 0.45
P-10 (2-4)	2-4	8/2/11	11-15503	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.73	< 0.37	< 0.37	< 0.37	< 0.37	1.88	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.56	< 0.33	0.89	< 0.37
P-10 (6-8)	6-8	8/2/11	11-15504	421	7.86	605	85.1	42.1	45.6	8.89	22.4	573	86.9	< 3.90	337	< 3.90	< 3.90	480	550	9.68	202	615	484	976	< 3.90	381
P10 (8-10)	8-10	8/2/11	11-15515	27.8	< 3.80	11.1	5.38	4.92	4.24	< 3.80	< 3.80	9.43	5.91	< 3.80	20.1	< 3.80	< 3.80	36.7	25.1	< 3.80	11.5	16.6	13.2	79.2	< 3.80	26.6
P-10 (10-12)	10-12	8/2/11	11-15505	14.3	< 3.70	10.4	3.74	< 3.70	< 3.70	< 3.70	< 3.70	10.8	4.81	< 3.70	11.7	< 3.70	< 3.70	18.3	14.7	< 3.70	5.04	20.1	14	46.7	< 3.70	14.2
P-10 (14-16)	14-16	8/2/11	11-15506	29.8	< 4.10	15.6	8.7	4.2	4.32	< 4.10	< 4.10	11.9	8.85	< 4.10	25.7	< 4.10	< 4.10	51.4	35.8	< 4.10	14.2	38	70.4	111	< 4.10	42
P-11 (2-4)	2-4	8/2/11	11-15507	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-11 (6-8)	6-8	8/2/11	11-15508	< 0.38	< 0.38	0.62	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	0.77	< 0.38	< 0.38	0.51	< 0.38	0.5	0.58	< 0.38	1.26	1.19	< 0.58	1.95	< 0.38	0.47
P-11 (9-10)	9-10	8/2/11	11-15509	409	< 64.5	409	163	108	120	< 64.5	75	440	186	< 64.5	364	< 64.5	< 64.5	803	487	< 64.5	651	2,520	1,040	1,711	< 64.5	588
P-11D (9-10)	9-10	8/2/11	11-15510	773	86	630	240	177	177	< 66.0	105	514	285	< 66.0	646	< 66.0	< 66.0	1,080	927	< 66.0	707	2,370	1,650	2,230	< 66.0	853
P-11 (14-16)	14-16	8/2/11	11-15511	61.2	< 4.20	23.2	10.7	6.37	5.32	< 4.20	5.19	24.7	11.5	< 4.20	44.7	< 4.20	< 4.20	63.7	59.1	< 4.20	38.2	136	72.2	128	< 4.20	44.7
P-11 (18-19)	18-19	8/2/11	11-15512	46.4	< 4.20	18.6	7.38	4.47	4.35	< 4.20	< 4.20	21.8	9.11	< 4.20	36.2	< 4.20	< 4.20	47.7	45.6	< 4.20	24.4	93.3	< 6.30	103	< 4.20	32

ICL- Construction - Industrial Closure Level - Construction Worker
ICL- Direct - Industrial Closure Level - Direct Exposure
ICL- Direct - Industrial Closure Level - Direct Exposure - Pentachlorophenol
All sample concentrations in mg/kg
Samples analyzed by U.S. EPA SW-846 Method 8270/8270SIM
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

TABLE 1B
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM P-12 - P-21
AUGUST 3, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Sample Depth	Date Sampled	Lab Sample ID	Units in mg/kg (ppm)																					
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Construction				**50,000**	**5,900**	**250,000**	**790**	**79**	**790**	**NA**	**7,900**	**31,000**	**79,000**	**79**	**1,800**	**18,000**	**NA**	**33,000**	**33,000**	**790**	**3,300**	**17,000**	**3,800**	**2,500**	**230,000**	**25,000**
ICL-Direct				**24,000**	**2,800**	**120,000**	**15**	**1.5**	**15**	**NA**	**150**	**690**	**1,500**	**1.5**	**980**	**9,800**	**NA**	**16,000**	**16,000**	**15**	**1,600**	**8,000**	**54**	**1,200**	**96,000**	**12,000**
P-12 (2-4)	2-4	8/3/11	11-15739	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-12-(6-8)	6-8	8/3/11	11-15740	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-12-(14-16)	14-16	8/3/11	11-15741	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-12 (18-20)	18-20	8/3/11	11-15742	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.87	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.66	< 0.39	< 0.43	< 0.43
P-13 (6-8)	6-8	8/3/11	11-15743	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.32	< 0.35	< 0.35
P-13-(10-12)	10-12	8/3/11	11-15744	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.57	< 0.34	< 0.38	< 0.38
P-13 (14-16)	14-16	8/3/11	11-15745	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.79	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.60	< 0.36	< 0.39	< 0.39
P-14 (10-12)	10-12	8/3/11	11-15746	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-14 (16-17)	16-17	8/3/11	11-15747	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.70	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-15 (2-4)	2-4	8/3/11	11-15748	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.55	< 0.33	< 0.36	< 0.36
P-15 (14-16)	14-16	8/3/11	11-15749	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-16 (10-12)	10-12	8/3/11	11-15750	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-16D (10-12)	10-12	8/3/11	11-15751	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.57	< 0.34	< 0.38	< 0.38
P-16 (17-18)	17-18	8/3/11	11-15752	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.62	< 0.37	< 0.41	< 0.41
P-17 (6-8)	6-8	8/3/11	11-15753	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-17 (14-16)	14-16	8/3/11	11-15754	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-18 (6-8)	6-8	8/3/11	11-15755	< 0.39	< 0.39	**0.71**	**0.63**	**0.69**	**1.51**	**0.54**	**0.66**	**0.54**	**1.31**	< 0.39	< 0.39	< 0.39	< 0.39	**2.58**	< 0.39	**0.48**	< 0.39	< 0.39	**1.99**	**1.3**	< 0.39	**2.57**
P-18 (17-18)	17-18	8/3/11	11-15756	**26.9**	< 3.30	**27.1**	**8.12**	< 3.30	**4.35**	< 3.30	**4.88**	**15.3**	**13**	< 3.30	**21.9**	< 3.30	< 3.30	**56.1**	**34.3**	< 3.30	< 3.30	< 3.30	< 5.00	**102**	< 3.30	**46.8**
P-19 (6-8)	6-8	8/3/11	11-15757	< 0.38	< 0.38	**0.48**	< 0.38	**0.53**	**0.4**	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	**0.46**	< 0.38	< 0.38	**0.52**	**0.45**	< 0.38	**0.5**	**0.62**	< 0.57	**1.68**	< 0.38	**0.5**
P-19 (10-12)	10-12	8/3/11	11-15758	**1,480**	**28.8**	**700**	**288**	**156**	**238**	**41**	**89.6**	**35.1**	**304**	< 20.5	**333**	< 20.5	< 20.5	**1,260**	**813**	**44.5**	**70.1**	**23.5**	**232**	**925**	< 20.5	**1,340**
P-19 (12-14)	12-14	8/3/11	11-15759	**3.61**	< 0.43	**3.23**	**1.43**	**0.86**	**1**	< 0.43	< 0.43	**1.87**	**1.55**	< 0.43	**3.14**	< 0.43	< 0.43	**5.83**	**5.83**	< 0.43	**2.96**	**5.58**	**3.43**	**13.9**	< 0.43	**4.74**
P-19 (16-18)	16-18	8/3/11	11-15760	**3.59**	< 0.41	**3.47**	**1.41**	**0.75**	**0.9**	< 0.41	< 0.41	**2.04**	**1.37**	< 0.41	**3.37**	< 0.41	< 0.41	**5.93**	**5.97**	< 0.41	< 0.41	**2.71**	**4.03**	**14.6**	< 0.41	**4.73**
P-20 (8-10)	8-10	8/3/11	11-15761	< 3.70	< 3.70	**6.66**	**12.1**	**8.93**	**24.5**	**4.26**	**10.27**	< 7.30	**26.1**	< 3.70	< 3.70	< 3.70	< 3.70	**85.7**	< 3.70	**4.28**	< 3.70	< 3.70	**57**	**9.58**	< 3.70	**91.4**
P-20 (10-12)	10-12	8/3/11	11-15762	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.62	< 0.37	< 0.41	< 0.41
P-20 (16-18)	16-18	8/3/11	11-15763	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.60	< 0.36	< 0.40	< 0.40
P-21 (8-10)	8-10	8/3/11	11-15764	< 0.40	< 0.40	**0.41**	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	**0.43**	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	**1.23**	**1.38**	< 0.60	**1.13**	< 0.40	< 0.40
P-21 (10-12)	10-12	8/3/11	11-15765	< 0.45	< 0.45	**0.46**	**1.13**	**1.7**	**0.95**	< 0.45	< 0.45	< 0.90	**2.59**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	**0.53**	**0.59**	< 0.68	**1.01**	< 0.45	**0.55**
P-21 (14-16)	14-16	8/3/11	11-15766	**20,610**	**268**	**9,950**	**1,545**	**739**	**1,003**	**137.9**	**454**	**43,990**	**4,300**	< 100	**17,830**	< 100	< 100	**11,820**	**30,760**	**157**	**25,050**	**25,660**	**2,350**	**27,930**	< 100	**12,470**
P-21D (14-16)	14-16	8/3/11	11-15767	**16,670**	**265**	**11,880**	**1,406**	**558**	**648**	**137**	**410**	**36,180**	**1,709**	< 120	**16,000**	< 120	< 120	**9,580**	**25,330**	**135.8**	**14,300**	**22,120**	**1,100**	**23,700**	< 120	**9,580**

ICL-Construction = Industrial Closure Level - Construction Worker
ICL-Direct = Industrial Closure Level - Direct Exposure
ICL-Direct = Industrial Cleanup Level - Direct Exposure - Pentachlorophenol
ICL-Direct = Industrial Cleanup Level - Direct Exposure
All sample concentrations in mg/kg
Samples analyzed by U.S. EPA SW-846 Method 8270 (only detections shown)
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

TABLE 1C
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM P-22 - P-26
AUGUST 4, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Sample Depth	Date Sampled	Lab Sample ID	Units in mg/kg (ppm)																					
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Construction				**50,000**	**5,900**	**250,000**	**790**	**79**	**790**	**NA**	**7,900**	**31,000**	**79,000**	**79**	**1,800**	**18,000**	**NA**	**33,000**	**33,000**	**790**	**3,300**	**17,000**	**3,800**	**2,500**	**230,000**	**25,000**
ICL-Direct				**24,000**	**2,800**	**120,000**	**15**	**1.5**	**15**	**NA**	**150**	**690**	**1,500**	**1.5**	**980**	**9,800**	**NA**	**16,000**	**16,000**	**15**	**1600**	**8,000**	**54**	**1,200**	**96,000**	**12,000**
P-22 (2-4)	2-4	8/4/11	11-15797	< 0.35	< 0.35	**0.55**	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	**0.5**	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1.72	< 0.32	< 0.35	< 0.35
P-22 (17-18)	17-18	8/4/11	11-15799	**4.4**	< 4.10	**62.1**	< 4.10	< 4.10	< 4.10	< 4.10	< 4.10	**48.6**	< 4.10	< 4.10	**8.81**	< 4.10	< 4.10	**8.6**	**17**	< 4.10	< 4.10	< 4.10	< 19.8	**30.9**	< 4.10	**5.97**
P-23 (10-12)	10-12	8/4/11	11-15800	< 0.41	< 0.41	**0.87**	**1.29**	**1.39**	**2.13**	**1.07**	**0.88**	**0.81**	**1.95**	< 0.41	< 0.41	< 0.41	< 0.41	**3.76**	< 0.41	**1**	< 0.41	**0.45**	**1.98**	**1.79**	< 0.41	**2.81**
P-23 (15-16)	15-16	8/4/11	11-15801	**4.65**	< 4.10	**7.84**	< 4.10	< 4.10	< 4.10	< 4.10	< 4.10	< 8.10	**6.04**	< 4.10	**5.14**	< 4.10	< 4.10	**15.4**	**8.48**	< 4.10	< 4.10	< 4.10	< 19.8	**24.4**	< 4.10	**10.3**
P-24 (7-8)	7-8	8/4/11	11-15802	< 0.36	< 0.36	**1.6**	< 0.36	<0.36	< 0.36	< 0.36	< 0.36	**1.25**	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	**0.41**	< 0.36	< 0.36	< 0.36	< 1.74	**0.77**	< 0.36	< 0.36
P-24 (11-12)	11-12	8/4/11	11-15803	**1,080**	**45.4**	**307**	**346**	**177**	**327**	**47.6**	**104**	**132**	**365**	< 31.2	**473**	< 31.2	< 31.2	**1,430**	**717**	**52.7**	**198**	**178**	**679**	**1,800**	< 31.2	**971**
P-24 (15-16)	15-16	8/4/11	11-15804	**26.2**	< 4.00	**9.4**	**5.43**	< 4.00	< 4.00	< 4.00	< 4.00	**8**	**4.79**	< 4.00	**19**	< 4.00	< 4.00	**27**	**22.9**	< 4.00	**8.51**	**22.7**	< 19.3	**55**	< 4.00	< 4.00
P-24 (18-19)	18-19	8/4/11	11-15805	**67.1**	< 4.00	**16.5**	**12.5**	**7.22**	**8.23**	< 4.00	< 4.00	**14.5**	**11.6**	< 4.00	**47.8**	< 4.00	< 4.00	**76.3**	**57**	< 4.00	**27.1**	**77.9**	< 19.3	**151**	< 4.00	**51.8**
P-25 (10.5-11.0)	10.5-11.5	8/4/11	11-15806	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.75	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 1.82	< 0.34	< 0.38	< 0.38
P-25 (13-14)	13-14	8/4/11	11-15807	**1.82**	**0.74**	**1.32**	**1.76**	**1.92**	**2.54**	**0.8**	**0.76**	**0.76**	**1.81**	< 0.45	< 0.45	< 0.45	< 0.45	**3.62**	**2.38**	**0.8**	< 0.45	**0.56**	< 2.19	**2.12**	< 0.45	**3.69**
P-25 (17-18)	17-18	8/4/11	11-15808	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 1.98	< 0.37	< 0.41	< 0.41
P-26 (9-10)	9-10	8/4/11	11-15809	< 3.80	< 3.80	**17.3**	**10.8**	**17.2**	**30.2**	**5.87**	**8.83**	**7.5**	**17.9**	< 3.80	< 3.80	< 3.80	< 3.80	**38.2**	< 3.80	**6.44**	< 3.80	< 3.80	< 18.2	**4.05**	< 3.80	**47.4**
P-26 (13-14)	13-14	8/4/11	11-15810	**25.4**	**28**	**69.8**	**64.2**	**98.1**	**166**	**34.9**	**65.6**	< 48.0	**87.8**	< 24.0	< 24.0	< 24.0	< 24.0	**263**	**33.9**	**38.1**	< 24.0	**29.3**	< 117	**146**	< 24.0	**175**
P-26 (17-18)	17-18	8/4/11	11-15811	**7.99**	< 0.40	**3.99**	**1.56**	**0.77**	**1.08**	< 0.40	< 0.40	**3.99**	**1.52**	< 0.40	**6.31**	< 0.40	< 0.40	**5.5**	**8.63**	< 0.40	**11.4**	< 0.40	< 1.93	**19.6**	< 0.40	**3.84**

ICL - Construction = Industrial Closure Level - Construction Worker
ICL Direct = Industrial Closure Level - Direct Exposure
ICL Direct = Industrial Closure Level - Direct Exposure - Pentachlorophenol
ICL - Direct = Industrial Closure Level - Direct Exposure
All sample concentrations in mg/kg
Sample analyzed by U.S. EPA SW-846 Method 8270 (only detections shown)
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

Appendix A

TABLE 1
SUMMARY OF TPH RESULTS FOR SOIL SAMPLES

Boring #	Total Depth (ft)	Sample #	Depth to Sample (ft)	Method	Detection Limit	TPH
SB1	20	SB1C	18-19	8015	10	ND
SB4	20	SB4B	9-10	8015	10	ND

(all results are ppm) ND = Non Detect

TABLE 2 (page 1 of 3)

SUMMARY OF SVOC LABORATORY RESULTS FOR SOIL SAMPLES

Boring #	SB1	SB2	SB3		SB4	SB5	SB6		
Sample #	SB1C	SB2C	SB3B	SB3D	SB4B	SB5B	SB6B	SB6C	
Depth to Sample (ft)	18-19	16-17	7-8	15-16	9-10	19-20	7-8	18-20	**RISC Tier 1 Levels[1]**
acenaphthene*	ND	ND	ND	ND	ND	ND	100	2.55	1.3
anthracene*	ND	ND	0.61	ND	ND	0.62	140	ND	51
benzo (a) anthracene*	ND	ND	ND	ND	6.4	ND	ND	ND	5
benzo (a) pyrene*	ND	ND	ND	ND	9.4	1.03	ND	ND	0.50
benzo (a) fluoranthene*	ND	ND	ND	ND	16	ND	ND	ND	5.0
benzo (ghi) perylene*	ND	ND	ND	ND	5.6	ND	ND	ND	N/A
benzo (k) fluoranthene*	ND	ND	ND	ND	13	ND	ND	ND	39
chrysene*	ND	ND	ND	ND	13	ND	ND	ND	26
dibenzo (a,h) anthracene*	ND	ND	ND	ND	ND	ND	ND	ND	0.5
dibenzofuran	ND	ND	0.99	ND	ND	ND	65	ND	N/A
1,4 dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	2.2
2,4-dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	ND	N/A
fluoranthene*	ND	ND	0.62	ND	23	1.05	260	ND	880
fluorene*	ND	ND	0.73	ND	ND	0.52	100	2.08	170
indeno (1,2,3-cd) pyrene*	ND	ND	ND	ND	5	ND	ND	ND	3.0
2-methylnaphthalene*	ND	ND	4.4	ND	ND	ND	ND	ND	14
naphthalene*	ND	ND	4.7	ND	ND	ND	90	1.07	0.70
N-nitrosodipropylamine	ND	ND	ND	ND	ND	ND	ND	ND	9.7
phenanthrene*	ND	ND	3.8	ND	ND	1.81	260	ND	N/A
pyrene*	ND	ND	1	ND	24	0.79	230	ND	570
1,2,4 trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	5.3
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	0.75
2,4-dimethylphenol	ND	ND	0.99	ND	ND	ND	ND	ND	9.0
2-methyl phenol	ND	ND	0.84	ND	ND	ND	ND	ND	14
4-methyl phenol	ND	ND	1.34	ND	ND	ND	ND	ND	N/A
p-chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND	N/A
pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	0.028
phenol	ND	ND	1.22	ND	ND	ND	ND	ND	110
tetrachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	N/A

(all results are ppm) ND = Non Detect = above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1

*Poylnuclear Aromatic Hydrocarbon (PAH)

TABLE 2 (page 2 of 3)
SUMMARY OF SVOC LABORATORY RESULTS FOR SOIL SAMPLES

Boring #	SB7			SB8			SB9	
Sample #	SB7B	SB7C	SB7D	SB8A	SB8B	SB8C	SB9B	
Depth to Sample (ft)	7-8	10-12	15-16	3-4	10-12	16-17	19-20	**RISC Tier 1 Levels**[1]
acenaphthene*	ND	ND	2600	4.9	1100	330	21	1.3
anthracene*	ND	93	8200	ND	1000	ND	9	51
benzo (a) anthracene*	ND	190	ND	ND	ND	ND	ND	5
benzo (a) pyrene*	ND	220	ND	ND	ND	ND	ND	0.50
benzo (a) fluoranthene*	ND	220	ND	ND	ND	ND	ND	5.0
benzo (ghi) perylene*	ND	140	ND	ND	ND	ND	ND	N/A
benzo (k) fluoranthene*	ND	220	ND	ND	ND	ND	ND	39
chrysene*	ND	250	ND	ND	ND	ND	ND	26
dibenzo (a,h) anthracene*	ND	50	ND	ND	ND	ND	ND	0.5
dibenzofuran	ND	ND	2500	ND	820	260	20	N/A
1,4 dichlorobenzene	ND	ND	ND	4.4	ND	ND	ND	2.2
2,4-dinitrotoluene	ND	ND	ND	4.4	ND	ND	ND	N/A
fluoranthene*	ND	330	2400	ND	1900	440	13	880
fluorene*	ND	ND	3600	ND	1100	350	26	170
indeno (1,2,3-cd) pyrene*	ND	110	ND	ND	ND	ND	ND	3.0
2-methylnaphthalene*	1.66	ND	2800	5	690	290	ND	14
naphthalene*	1.53	ND	7900	2.5	1400	620	13	0.70
N-nitrosodipropylamine	ND	ND	ND	4.9	ND	ND	ND	9.7
phenanthrene*	1.57	170	7100	2	3500	920	70	N/A
pyrene*	ND	330	1600	5.9	1400	290	7.9	570
1,2,4 trichlorobenzene	ND	ND	ND	4.7	ND	ND	ND	5.3
2-chlorophenol	ND	ND	ND	9.9	ND	ND	ND	0.75
2,4-dimethylphenol	ND	ND	ND	ND	ND	ND	ND	9.0
2-methyl phenol	ND	ND	ND	ND	ND	ND	ND	14
4-methyl phenol	ND	ND	ND	ND	ND	ND	ND	N/A
p-chloro-m-cresol	ND	ND	ND	10.2	ND	ND	ND	N/A
pentachlorophenol	ND	ND	ND	5.4	ND	ND	ND	0.028
phenol	ND	ND	ND	11.7	ND	ND	ND	110
tetrachlorophenol	ND	ND	ND	ND	ND	ND	ND	N/A

(all results are ppm) ND = Non Detect = above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1
*Poylnuclear Aromatic Hydrocarbon (PAH)

TABLE 2 (page 3 of 3)
SUMMARY OF SVOC LABORATORY RESULTS FOR SOIL SAMPLES

Boring #	SB10					SB11		
Sample #	SB10B	SB10C	SB10D	SB10E	Duplicate of SB10E	SB11B	SB11C	
Depth to Sample (ft)	9-10	11-12	17-18	21-22	21-22	17-18	21-22	RISC Tier 1 Levels[1]
acenaphthene*	180	240	89	220	ND	1.7	2.1	1.3
anthracene*	170	380	51	110	ND	1.9	1.8	51
benzo (a) anthracene*	100	140	ND	ND	ND	ND	ND	5
benzo (a) pyrene*	ND	ND	ND	ND	ND	ND	ND	0.50
benzo (a) fluoranthene*	ND	ND	ND	ND	ND	ND	ND	5.0
benzo (ghi) perylene*	ND	ND	ND	ND	ND	ND	ND	N/A
benzo (k) fluoranthene*	ND	ND	ND	ND	ND	ND	ND	39
chrysene*	130	270	ND	ND	ND	ND	ND	26
dibenzo (a,h) anthracene*	ND	ND	ND	ND	ND	ND	ND	0.5
dibenzofuran	160	210	69	170	ND	1.7	2	N/A
1,4 dichlorobenzene	ND	ND	ND	ND	ND	ND	ND	2.2
2,4-dinitrotoluene	ND	ND	ND	ND	ND	ND	ND	N/A
fluoranthene*	370	440	100	290	100	6.3	6.2	880
fluorene*	220	310	91	220	ND	3	3.4	170
indeno (1,2,3-cd) pyrene*	ND	ND	ND	ND	ND	ND	ND	3.0
2-methylnaphthalene*	110	260	76	200	ND	ND	ND	14
naphthalene*	140	480	170	580	250	ND	ND	0.70
N-nitrosodipropylamine	ND	ND	ND	ND	ND	ND	ND	9.7
phenanthrene*	670	840	220	600	220	12	ND	N/A
pyrene*	260	310	69	200	ND	4	4	570
1,2,4 trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	5.3
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	0.75
2,4-dimethylphenol	ND	ND	ND	ND	ND	ND	ND	9.0
2-methyl phenol	ND	ND	ND	ND	ND	ND	ND	14
4-methyl phenol	ND	ND	ND	ND	ND	ND	ND	N/A
p-chloro-m-cresol	ND	2300	ND	ND	ND	ND	ND	N/A
pentachlorophenol	3300	ND	290	690	ND	ND	ND	0.028
phenol	ND	ND	ND	ND	ND	ND	ND	110
tetrachlorophenol	110	ND	ND	ND	ND	ND	ND	N/A

(all results are ppm) ND = Non Detect = above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1
*PoyInuclear Aromatic Hydrocarbon (PAH)

TABLE 3
SUMMARY OF VOC LABORATORY RESULTS FOR SOIL SAMPLES
(all results are ppb)

Boring #	Sample #	Depth to Sample (ft)	benzene	ethylbenzene	styrene	toluene	Total xylenes
SB1	SB1C	18-19	ND	ND	ND	ND	ND
SB2	SB2C	16-17	ND	ND	ND	ND	ND
SB3	SB3B	7-8	ND	ND	ND	ND	ND
	SB3D	15-16	ND	ND	ND	ND	ND
SB4	SB4B	9-10	ND	ND	ND	ND	ND
SB5	SB5B	19-20	ND	ND	ND	ND	ND
SB6	SB6B	7-8	24	168	ND	68	362
	SB6C	18-20	ND	ND	ND	ND	ND
	SB7B	7-8	ND	ND	ND	ND	ND
SB7	SB7C	10-12	32	14	ND	60	93
	SB7D	15-16	1140	4880	7220	7290	16,900
	SB8A	3-4	ND	ND	ND	ND	ND
SB8	SB8B	10-12	97	631	ND	233	1930
	SB8C	16-17	92	828	ND	162	1980
SB9	SB9B	19-20	ND	ND	ND	ND	ND
	SB10B	9-10	ND	145	ND	107	1010
	SB10C	11-12	54	186	ND	226	1080
SB10	SB10D	17-18	25	188	69	116	521
	SB10E	21-22	221	1050	756	1040	3930
	Duplicate of SB10E	21-22	ND	186	101	130	1380
SB11	SB11B	17-18	ND	ND	ND	ND	ND
	SB11C	21-22	ND	ND	ND	ND	ND
RISC Tier 1 Level[1]			340	13,000	3500	12,000	190,000

ND = Non Detect

= above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1

TABLE 4
SUMMARY OF SVOC LABORATORY RESULTS FOR GROUNDWATER SAMPLES

Boring #	SB1	SB2	SB3	SB4	SB7		SB8	SB9	SB10	SB11	
Sample #	SB1-GW	SB2-GW	SB3-GW	SB4-GW	SB7-GW	DUPLICATE	SB8-GW	SB9-GW	SB10-GW	SB11-GW	RISC Tier 1 Level[1]
acenaphthene*	ND	ND	ND	ND	520	390	490	210	240	75	460
anthracene*	ND	ND	ND	ND	ND	ND	ND	ND	ND	22	43
dibenzofuran	ND	ND	ND	ND	370	270	ND	110	ND	64	N/A
fluoranthene*	ND	ND	ND	ND	ND	ND	ND	ND	ND	33	210
fluorene*	ND	ND	ND	ND	310	230	ND	100	ND	96	310
2-methylnaphthalene*	ND	ND	ND	ND	ND	ND	620	130	380	ND	N/A
naphthalene*	ND	ND	ND	ND	ND	350	6400	880	5000	36	8.3
phenanthrene*	ND	ND	ND	ND	430	320	480	160	200	180	N/A
pyrene*	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	140
pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	20,300	400	1.0
tetrachlorophenol	ND	ND	ND	ND	ND	230	ND	ND	2200	18	N/A

(all results are ppb) ND = Non Detect = above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1
*Polynuclear Aromatic Hyrdocarbons (PAH)

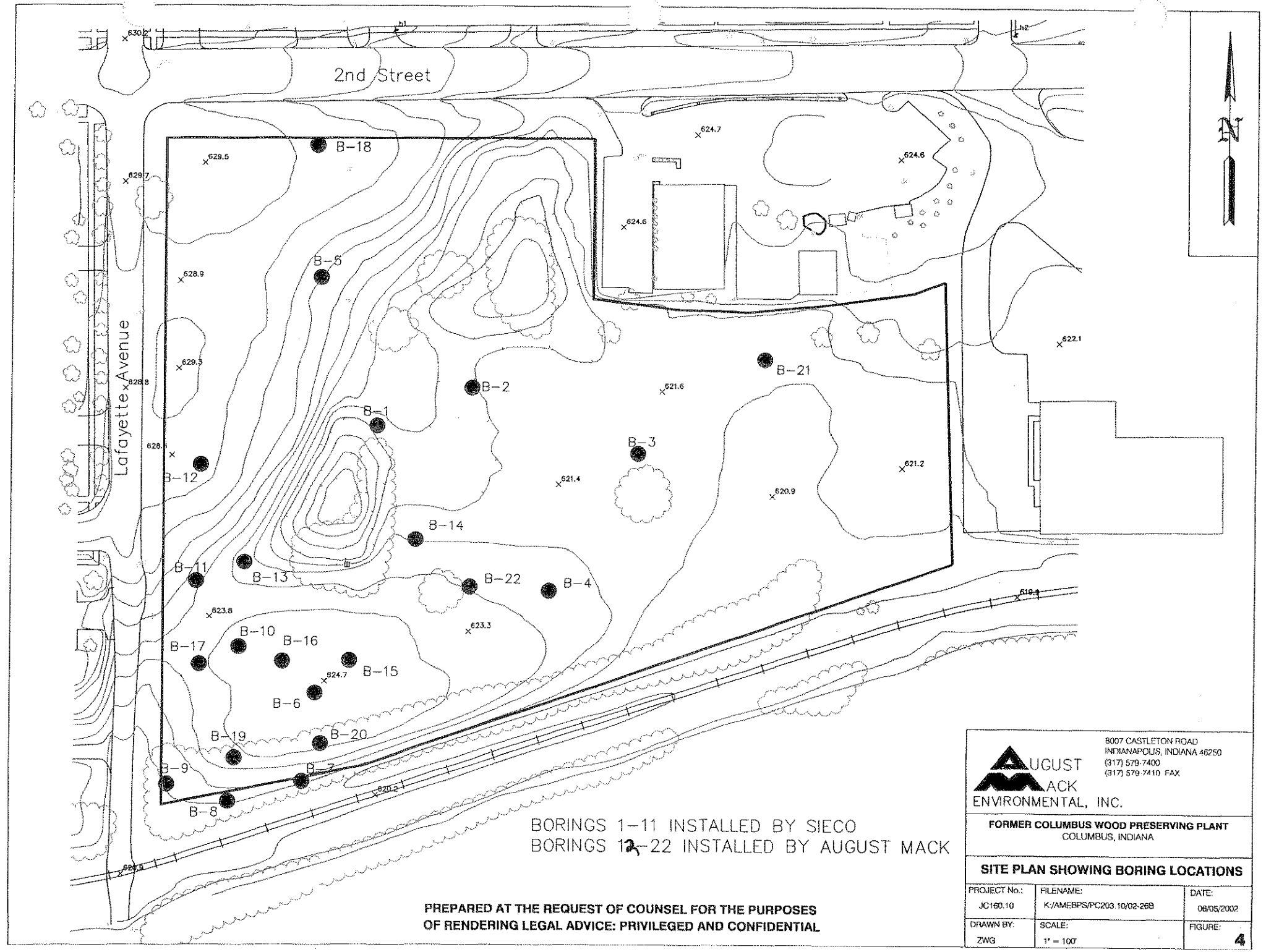
TABLE 5
SUMMARY OF VOC LABORATORY RESULTS FOR GROUNDWATER SAMPLES

Boring #	SB1	SB2	SB3	SB4	SB7		SB8	SB9	SB10		
Sample #	SB1-GW	SB2-GW	SB3-GW	SB4-GW	SB7-GW	DUPLICATE	SB8-GW	SB9-GW	SB10-GW	Trip Blank	RISC Tier 1 Level[1]
benzene	ND	ND	ND	ND	36	41	ND	ND	118	ND	5
ethylbenzene	ND	ND	ND	ND	ND	ND	27	ND	24	ND	700
toluene	ND	ND	ND	ND	ND	ND	20	ND	69	ND	1000
Total xylene	ND	ND	ND	ND	ND	ND	102	18	122	ND	10,000

(all results are ppb) ND = Non Detect = above RISC Tier 1 Limit

[1]Risk Integrated System of Closure, Table A Default Closure Table - Residential - Tier 1

Appendix B



BORINGS 1–11 INSTALLED BY SIECO
BORINGS 12–22 INSTALLED BY AUGUST MACK

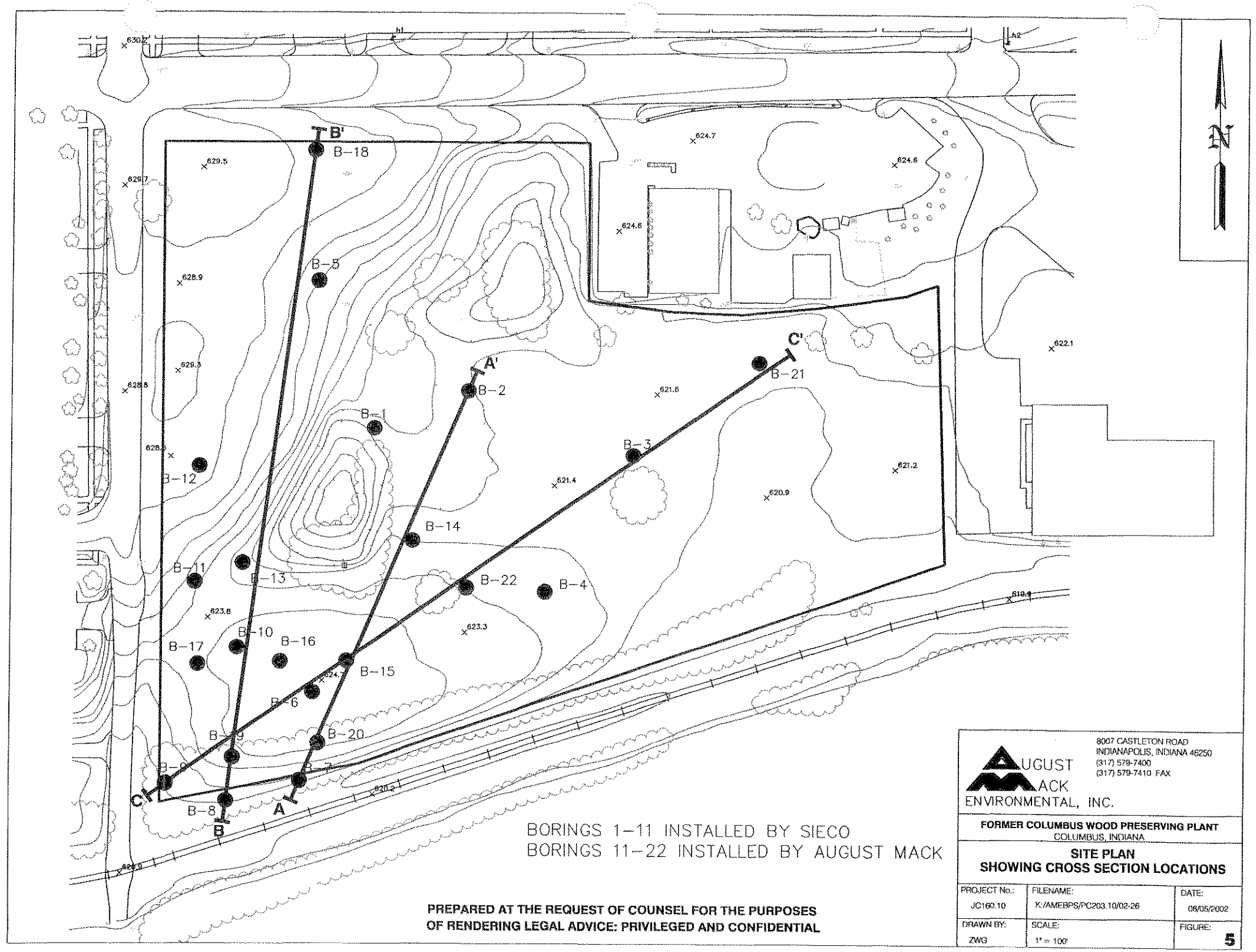
PREPARED AT THE REQUEST OF COUNSEL FOR THE PURPOSES OF RENDERING LEGAL ADVICE: PRIVILEGED AND CONFIDENTIAL

AUGUST MACK ENVIRONMENTAL, INC.
8007 CASTLETON ROAD
INDIANAPOLIS, INDIANA 46250
(317) 579-7400
(317) 579-7410 FAX

FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

SITE PLAN SHOWING BORING LOCATIONS

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/02-26B	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	1" = 100'	4



BORINGS 1–11 INSTALLED BY SIECO
BORINGS 11–22 INSTALLED BY AUGUST MACK

PREPARED AT THE REQUEST OF COUNSEL FOR THE PURPOSES OF RENDERING LEGAL ADVICE: PRIVILEGED AND CONFIDENTIAL

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INDIANAPOLIS, INDIANA 46250
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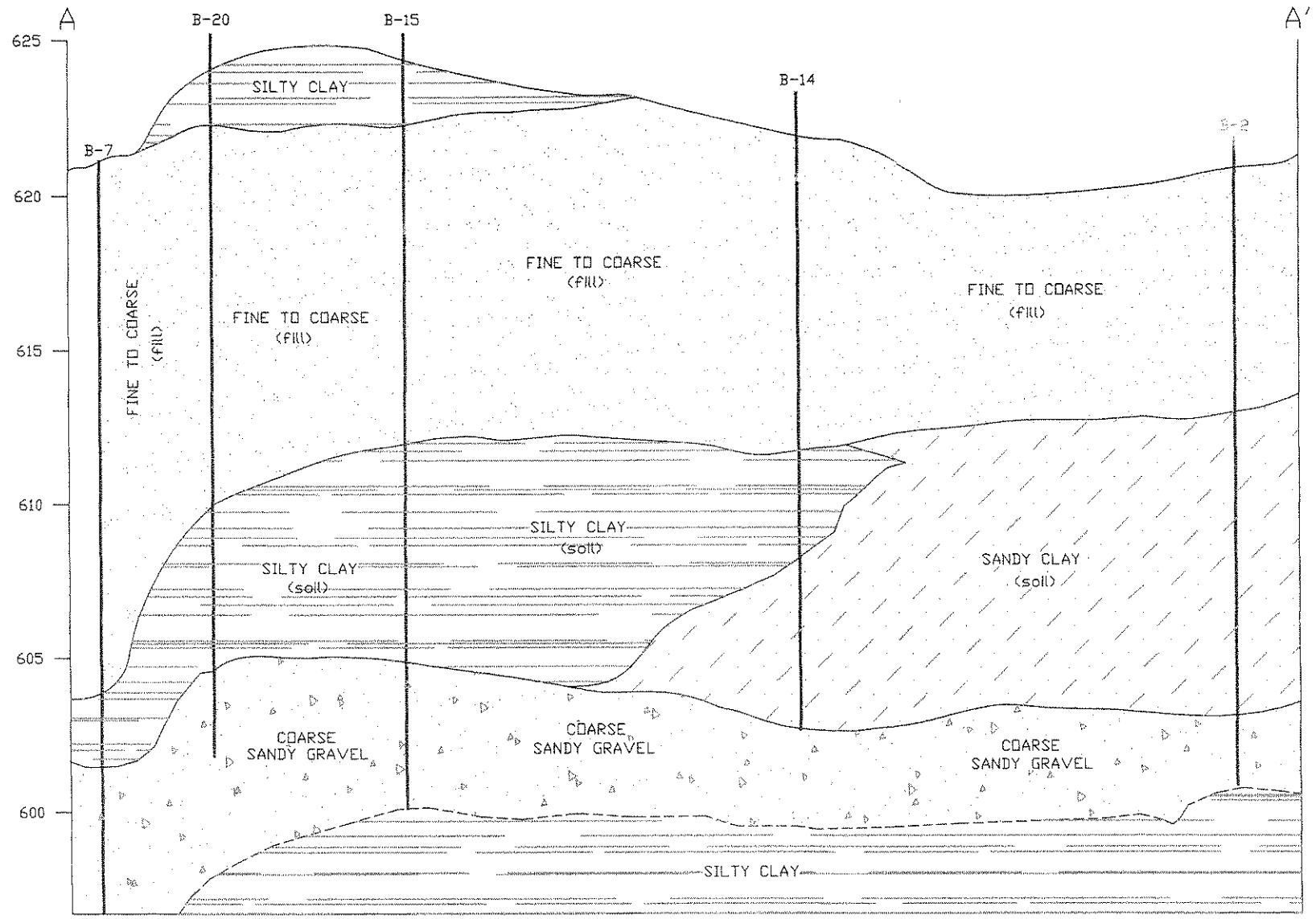
FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

SITE PLAN
SHOWING CROSS SECTION LOCATIONS

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/02-26	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	1" = 100'	5



SCALE:
HORIZONTAL - 1" = 50'
VERTICAL - 1" = 5'

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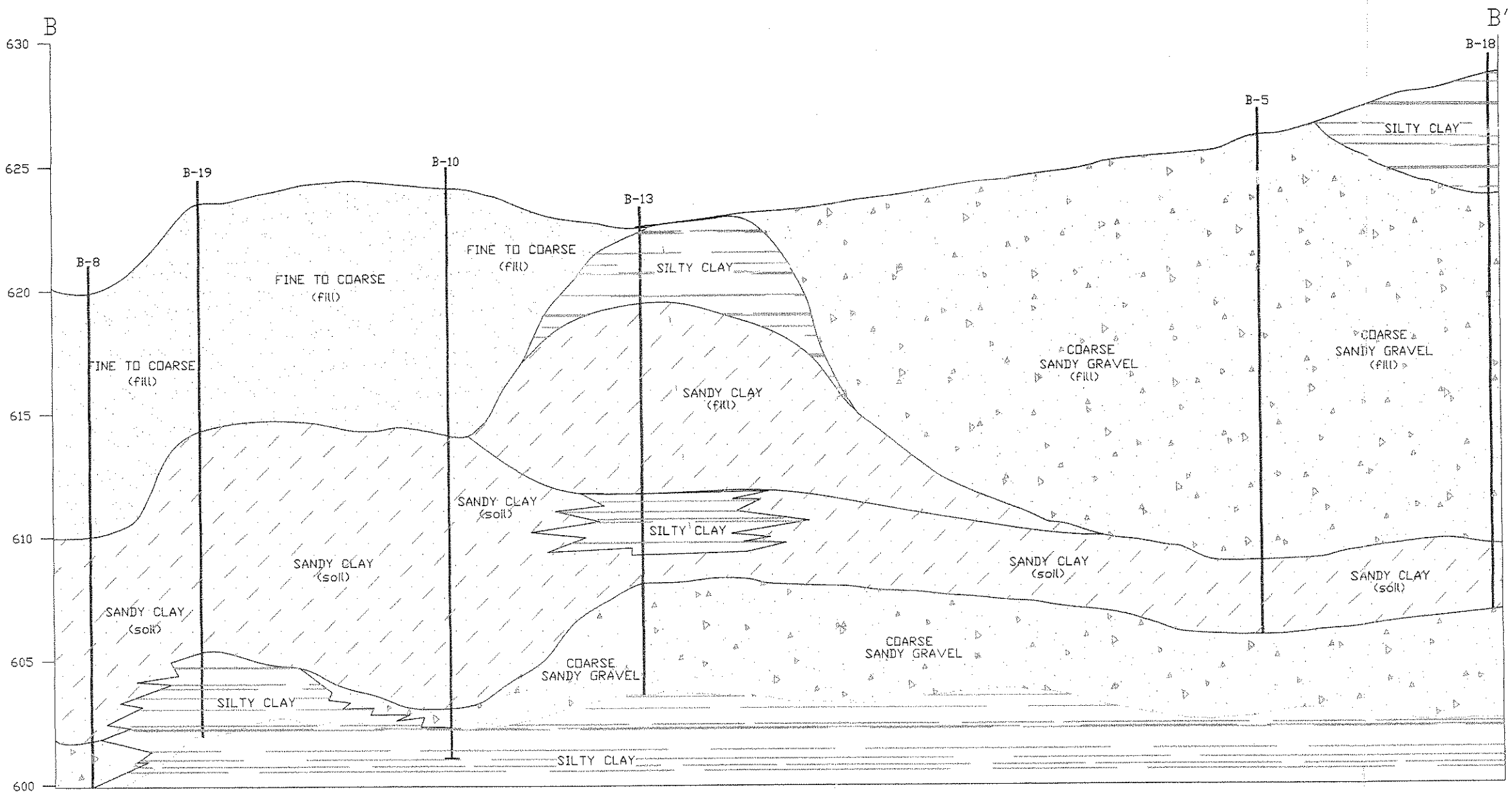
FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

CROSS SECTION A-A'

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/CROSSA	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	AS SHOWN	5A



SCALE:
HORIZONTAL - 1" = 50'
VERTICAL - 1" = 5'

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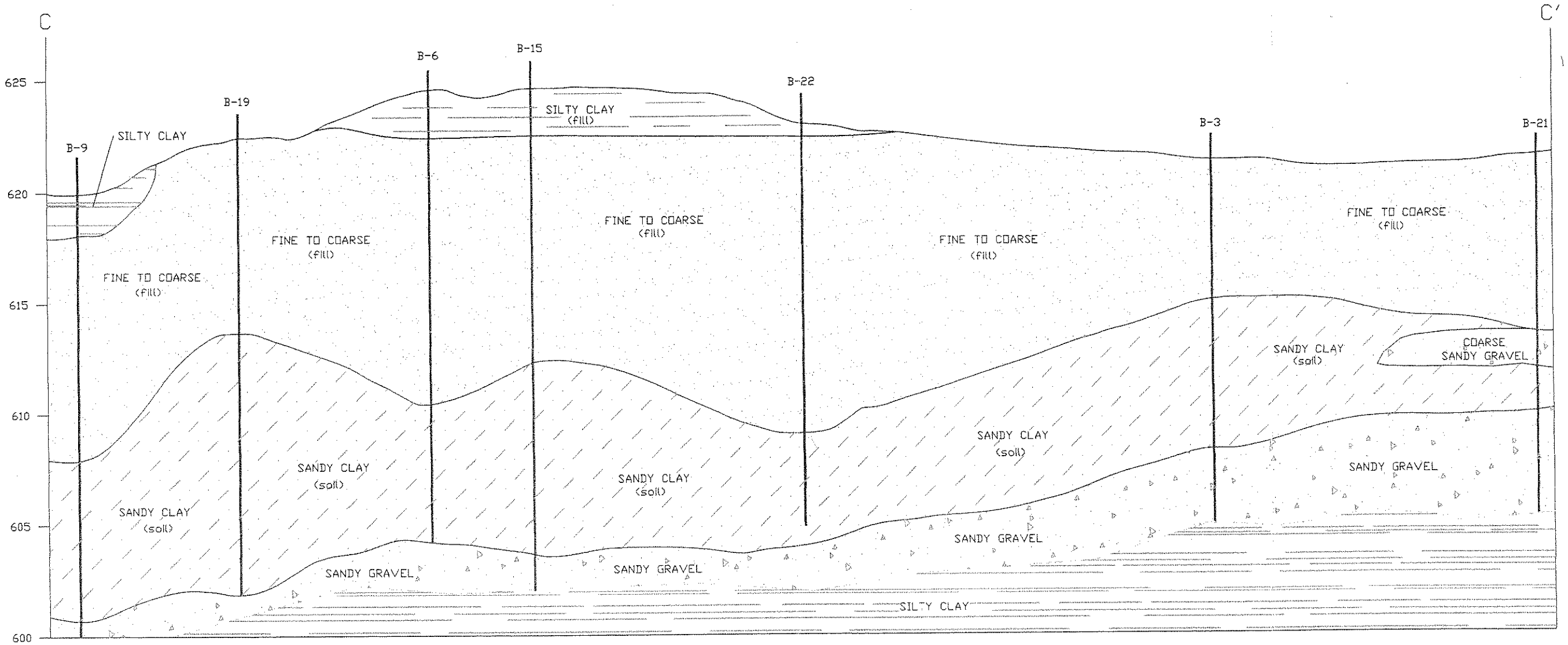
FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

CROSS SECTION B-B'

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/CROSSB	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	AS SHOWN	5B

PREPARED AT THE REQUEST OF COUNSEL FOR THE PURPOSES OF RENDERING LEGAL ADVICE: PRIVILEGED AND CONFIDENTIAL



SCALE:
HORIZONTAL - 1" = 50'
VERTICAL - 1" = 5'

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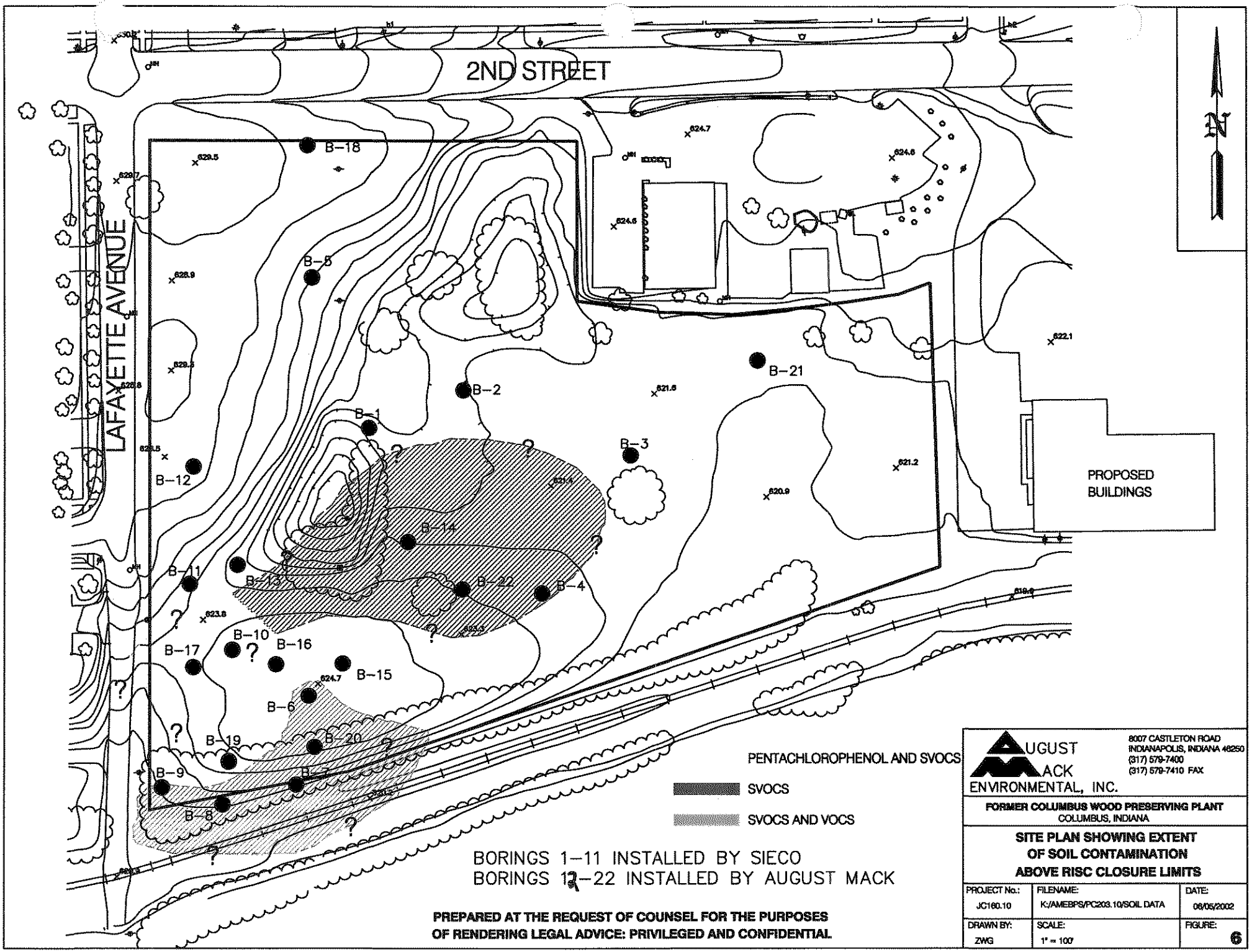
FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

CROSS SECTION C-C'

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/CROSSC	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
SMG	AS SHOWN	5C



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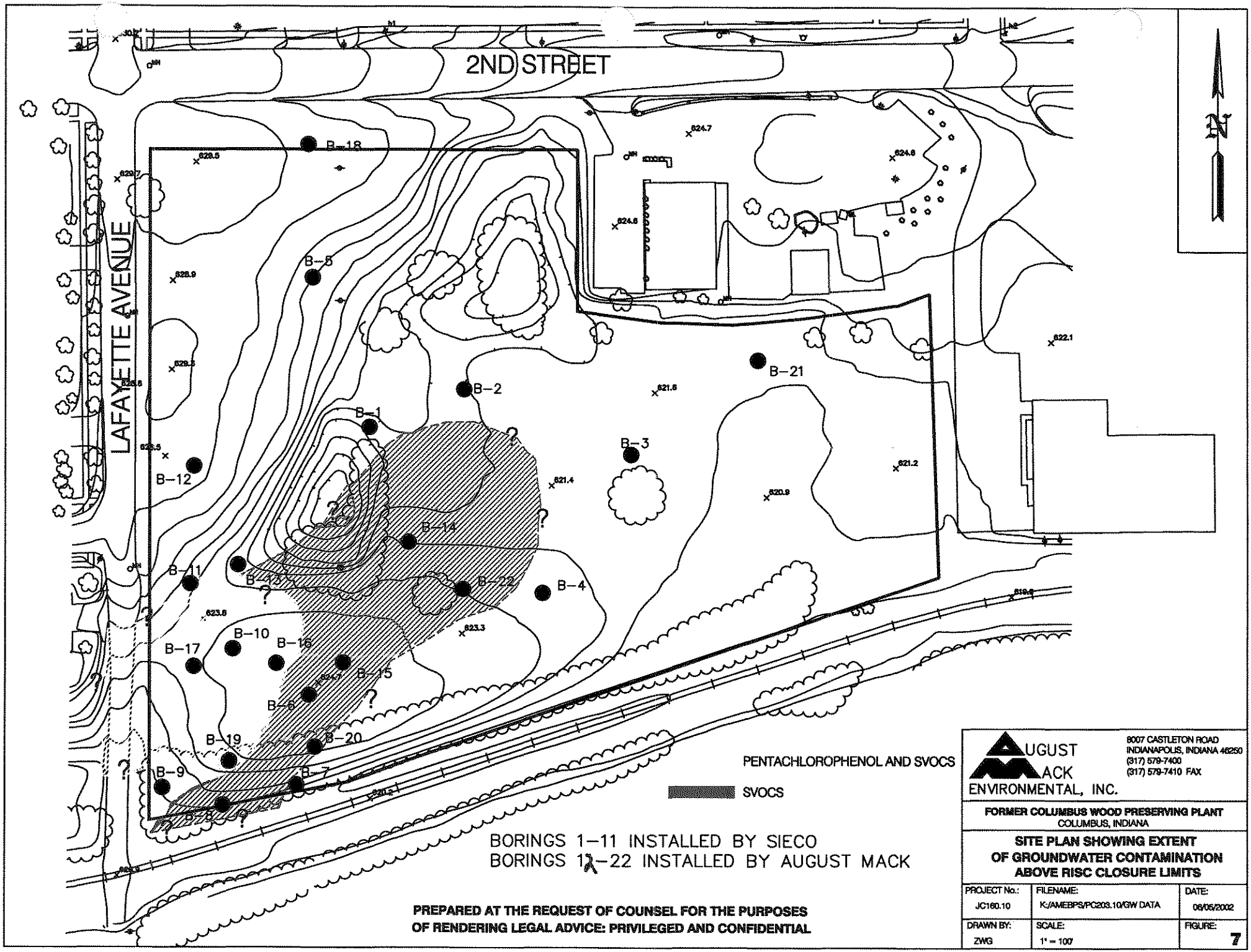
FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

SITE PLAN SHOWING EXTENT OF SOIL CONTAMINATION ABOVE RISC CLOSURE LIMITS

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/SOIL DATA	06/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	1" = 100'	6



PREPARED AT THE REQUEST OF COUNSEL FOR THE PURPOSES OF RENDERING LEGAL ADVICE: PRIVILEGED AND CONFIDENTIAL

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INDIANAPOLIS, INDIANA 46250
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FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

SITE PLAN SHOWING EXTENT OF GROUNDWATER CONTAMINATION ABOVE RISC CLOSURE LIMITS

PROJECT No.:	FILENAME:	DATE:
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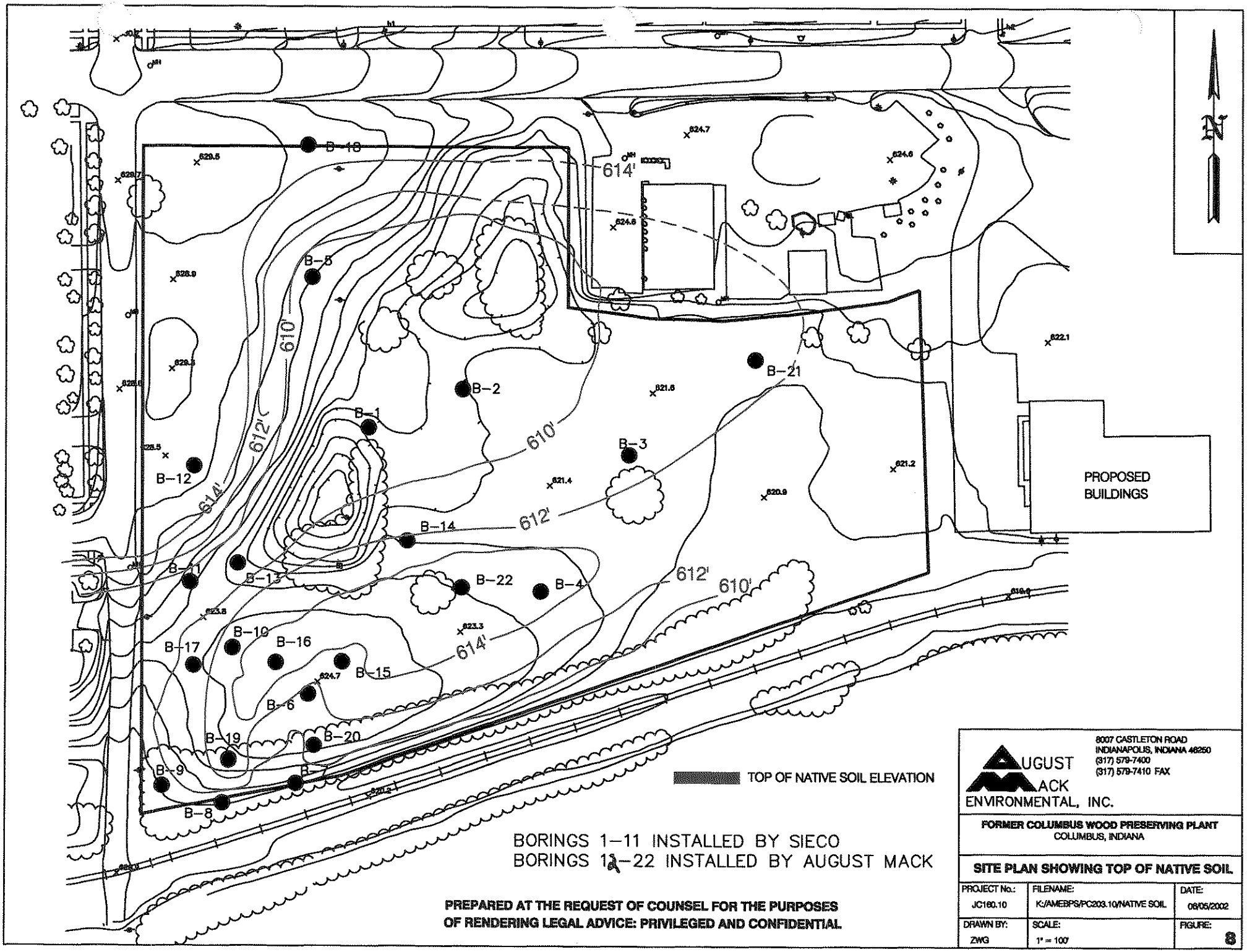
ZWG	1" = 100'	7



BORINGS 1–11 INSTALLED BY SIECO
BORINGS 12–22 INSTALLED BY AUGUST MACK

PREPARED AT THE REQUEST OF COUNSEL FOR THE PURPOSES OF RENDERING LEGAL ADVICE: PRIVILEGED AND CONFIDENTIAL

AUGUST MACK ENVIRONMENTAL, INC.
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(317) 579-7410 FAX

FORMER COLUMBUS WOOD PRESERVING PLANT
COLUMBUS, INDIANA

SITE PLAN SHOWING TOP OF NATIVE SOIL

PROJECT No.:	FILENAME:	DATE:
JC160.10	K:/AMEBPS/PC203.10/NATIVE SOIL	08/05/2002
DRAWN BY:	SCALE:	FIGURE:
ZWG	1" = 100'	8

TABLE 1
Summary of Soil SVOC Results
Borings B-B11
All results in parts per million (ppm)

Compound	B1 18-19	B2 16-17	B3 7-8	B3 15-16	B4 9-10	B5 19-20	B6 7-8	B6 18-20	B7 7-8	B7 10-12	B7 15-16	B8 3-4	B8 10-12	B8 16-17	B9 19-20	B10 9-10	B10 11-12	B10 17-18	B10 21-22	Duplicate of B10	B11 17-18	B11 21-22	RISC Res.	RISC Ind.
Acenapthene	ND	ND	ND	ND	ND	ND	100	2.55	ND	ND	**2,600**	4.9	1100	330	21	180	240	89	220	ND	1.7	2.1	130	1,200
Acenapthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Anthracene	ND	ND	0.61	ND	ND	0.62	**140**	ND	ND	**93**	**8,200**	ND	**1,000**	ND	**9**	**170**	**380**	**51**	**110**	ND	1.9	1.8	51	51
Benzo (a) anthracene	ND	ND	ND	ND	6.4	1.03	ND	ND	ND	**190**	ND	ND	ND	ND	ND	**100**	**140**	ND	ND	ND	ND	ND	5	15
Benzo (a) pyrene	ND	ND	ND	ND	**9.4**	ND	ND	ND	ND	**220**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.5	1.5
Benzo (a) flouranthene	ND	ND	ND	ND	16	ND	ND	ND	ND	**220**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	5	15
Benzo (ghi) perylene	ND	ND	ND	ND	5.6	ND	ND	ND	ND	140	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Benzo (k) flouranthene	ND	ND	ND	ND	13	ND	ND	ND	ND	**220**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	39	39
Chrysene	ND	ND	ND	ND	13	ND	ND	ND	ND	**250**	ND	ND	ND	ND	ND	130	270	ND	ND	ND	ND	ND	25	25
Dibenzo (a,h) anthacene	ND	ND	ND	ND	ND	ND	ND	ND	ND	**50**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	25	25
Dibenzofuran	ND	ND	0.99	ND	ND	ND	65	ND	ND	ND	2500	ND	820	260	20	160	210	69	170	ND	1.7	2	NL	NL
Fluoranthene	ND	ND	ND	ND	23	1.05	260	ND	ND	330	**2,400**	ND	**1,900**	440	13	370	440	100	290	100	6.3	6.2	880	880
Fluorene	ND	ND	ND	ND	23	0.52	100	2.08	ND	ND	**3,600**	ND	**1,100**	350	26	220	310	91	220	ND	3	3.4	170	1,100
Methylnapthalene	ND	ND	4.4	ND	ND	ND	ND	ND	1.66	ND	2800	5	690	290	ND	110	260	76	200	ND	ND	ND	NL	NL
Indeno (1,2,3-cd) pyrene	ND	ND	ND	ND	**5**	ND	ND	ND	ND	**110**	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1	3.1
Naphthalene	ND	ND	4.7	ND	ND	ND	90	1.07	1.53	ND	**7,900**	2.5	**1,400**	**620**	13	140	**480**	**170**	**580**	**250**	ND	ND	0.7	170
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	**5.4**	ND	ND	ND	**3,300**	ND	**290**	**690**	ND	ND	ND	0.03	0.66
Phenanthrene	ND	ND	3.8	ND	ND	1.81	260	ND	1.57	170	7100	2	3500	920	70	670	840	220	600	220	12	ND	NL	NL
Pyrene	ND	ND	1	ND	24	0.79	230	ND	ND	330	**1,600**	5.9	**1,400**	290	7.9	260	310	69	200	ND	4	4	570	570
1,2,4 trichlobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	77
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
p-chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.2	ND	ND	ND	ND	2300	ND	ND	ND	ND	ND	NL	NL
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61	320

TABLE 1 (continued)
Summary of Soil SVOC Results
Borings B12-B21
All results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'	RISC Res.	RISC Ind.
Acenapthene	ND	ND	460	ND	ND	380	ND	ND	410	ND	130	1,200
Acenapthylene	ND	ND	3	ND	ND	30	ND	ND	14	ND	NL	NL
Anthracene	ND	ND	42	ND	ND	**160**	ND	ND	**100**	ND	51	51
Benzo (a) anthracene	ND	ND	12	ND	ND	**87**	ND	ND	**46**	ND	5	15
Benzo (a) pyrene	ND	ND	**5.1**	ND	ND	**84**	ND	ND	**27**	ND	0.5	1.5
Benzo (a) flouranthene	ND	ND	4.5	ND	ND	**47**	ND	ND	**21**	ND	5	15
Benzo (ghi) perylene	ND	ND	ND	ND	ND	30	ND	ND	6.9	ND	NL	NL
Benzo (k) flouranthene	ND	ND	5.7	ND	ND	**86**	ND	ND	24	ND	39	39
Chrysene	ND	ND	12	ND	ND	**98**	ND	ND	**41**	ND	25	25
Dibenzo (a,h) anthacene	ND	ND	36	ND	ND	290	ND	ND	230	ND	NL	NL
Fluroanthene	ND	ND	30	ND	ND	310	ND	ND	180	ND	880	880
Fluorene	ND	ND	41	ND	ND	440	ND	ND	170	ND	170	1,100
2-Methylnapthalene	ND	ND	31	ND	ND	320	ND	ND	150	ND	NL	NL
Indeno (1,2,3-cd) pyrene	ND	ND	ND	ND	ND	ND	ND	ND	**6.8**	ND	3.1	3.1
Naphthalene	ND	ND	90	ND	0.38	**730**	0.78	ND	**370**	**200**	0.7	170
Pentachlorophenol	ND	ND	ND	ND	ND	130	ND	ND	ND	ND	0.03	0.66
Phenanthrene	ND	ND	90	ND	ND	400	0.42	0.42	380	ND	NL	NL
Pyrene	ND	ND	78	ND	0.34	450	ND	ND	200	ND	570	570
1,2,4 trichlobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	77
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
p-chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61	320

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial
ND = Not detected above the laboratory quantitation limit

TABLE 2
Summary of Soil VOC Results
Borings B1-B11
All results in parts per million (ppm)

Compound	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	RISC Res.	RISC Ind.
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.034	0.67
Ethylbenzene	ND	ND	ND	ND	ND	168	14	**4,880**	**631**	ND	ND	13	200
Styrene	ND	ND	ND	ND	ND	ND	ND	**7,220**	ND	ND	ND	3.5	720
Toluene	ND	ND	ND	ND	ND	60	60	**7,290**	233	ND	ND	12	240
Xylenes	ND	ND	ND	ND	ND	ND	ND	ND	**1,930**	ND	ND	190	410
Isopropylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
p-Isopropyltoluene	ND	ND	67	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
1,3,5 Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	0.64	ND	ND	NL	NL
1,2,4 Trimethylbenzne	ND	ND	1.6	ND	ND	ND	ND	ND	1.4	ND	ND	NL	NL

TABLE 2 (continued)
Summary of Soil VOC Results
Borings B12-B21
All results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'	RISC Res.	RISC Ind.
Benzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.034	0.67
Ethylbenzene	ND	ND	0.2	ND	ND	ND	ND	ND	0.27	ND	13	200
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.5	720
Toluene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	12	240
Xylenes	ND	ND	0.75	ND	ND	0.38	ND	ND	0.78	ND	190	410
Isopropylbenzene	ND	ND	0.57	ND	ND	0.34	ND	ND	ND	ND	NL	NL
p-Isopropyltoluene	ND	ND	67	ND	ND	ND	ND	ND	ND	ND	NL	NL
1,3,5 Trimethylbenzene	ND	ND	1.6	ND	ND	0.34	ND	ND	0.64	ND	NL	NL
1,2,4 Trimethylbenzne	ND	ND	1.6	ND	ND	0.98	ND	ND	1.3	ND	NL	NL

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential

Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial

ND = Not detected above the laboratory quantitation limit

TABLE 3
Summary of Soil RCRA Appendix 9 Metal Results
Borings B12 - B21
All results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'	RISC Res.	RISC Ind.
Mercury	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.055	2.1	32
Antimony	18	ND	ND	ND	ND	ND	ND	ND	5.7	ND	5.4	37
Arsenic	5.9	11	ND	8.3	4.9	46	6.3	8.9	4.7	6.8	3.9	20
Barium	5.7	73	0.38	95	62	60	64	44	15	120	1,600	5,900
Beryllium	ND	ND	0.018	ND	ND	4.9	ND	ND	ND	0.6	63	2,300
Cadmium	ND	1.6	ND	1.6	1.1	1.2	0.85	1.1	ND	1.6	7.5	77
Chromium	11	13	0.41	14	11	91	8.1	13	12	16	38	120
Cobalt	2.9	6.8	0.077	6.6	5.7	3.9	6.5	5.4	3.3	6.4	NL	NL
Copper	8.7	25	0.16	14	17	35	12	17	8.3	25	580	1,700
Lead	ND	18	0.11	13	13	10	12	11	2.9	23	81	230
Nickel	5.3	9.8	0.12	7.9	6.2	4.5	4.3	7	3.6	7.4	950	2,700
Selenium	34	ND	0.24	ND	ND	8.1	ND	ND	18	ND	5.2	53
Silver	2.9	1.9	0.026	1.7	1.3	0.49	ND	0.86	ND	1.6	31	87
Tin	ND	7	ND	ND	7	6.5	8.4	5.6	ND	5.2	NL	NL
Vanadium	9.8	28	0.27	30	22	16	21	26	13	33	NL	NL
Zinc	23	59	0.88	55	44	1,900	32	40	21	76	10,000	10,000
Thallium	ND	ND	ND	ND	ND	NS	ND	ND	ND	ND	2.8	0.66

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential

Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial

ND = Not detected above the laboratory quantitation limit

TABLE 4
Summary of Soil TPH Analytical Results
Borings B12 - B21
All results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'	IDEM closure
TPH DRO	ND	ND	**200**	ND	ND	**310**	ND	ND	**320**	ND	100
TPH GRO	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential

Bold = Constituent concentration above the IDEM-default closure levels

ND = Not detected above the laboratory quantitation limit

TABLE 5
Summary of Soil pH and Alkalinity Results
Borings B12 -B21
Results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'
pH	8.6	7.8	8.1	8.0	7.8	7.6	7.9	8.2	8.3	7.7
Alkalinity, Bicarbonate	5,800	1,100	9,700	1,900	1,700	2,200	1,700	1,900	5,000	3,200
Alkalinity, Carbonate	510	ND	200	ND	ND	ND	ND	ND	ND	ND

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
ND = Not Detected Above Laboratory Detection Limits

TABLE 6
Summary of Groundwater SVOC Results
Borings B1-B11
All results in parts per million (ppb)

Compound	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	RISC Res.	RISC Ind.
Acenapthene	ND	ND	ND	ND	ND	ND	520	490	210	240	75	460	4,200
Acenapthylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	22	43	43
Benzo (a) anthracene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	3.9
Benzo (a) pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.2	3.9
Benzo (a) flouranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.2	1.5
Benzo (ghi) perylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Benzo (k) flouranthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.8	0.8
Chrysene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.6	1.6
Dibenzo (a,h) anthacene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Dibenzofuran	ND	ND	ND	ND	ND	ND	370	ND	110	ND	64	NL	NL
Fluroanthene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	33	210	210
Fluorene	ND	ND	ND	ND	ND	ND	310	ND	100	ND	96	310	2,000
2-Methylnapthalene	ND	ND	ND	ND	ND	ND	ND	620	130	380	ND	NL	NL
Ideno (1,2,3-cd) pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1	3,100
Naphthalene	ND	ND	ND	ND	ND	ND	ND	6,400	880	5,000	36	8.3	2,000
Pentachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	20,300	400	1.0	24
Phenanthrene	ND	ND	ND	ND	ND	ND	430	480	160	200	180	NL	NL
Tetrachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,200	18	NL	NL
Pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	20	140	140
1,2,4-trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	77
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
p-chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61	320

TABLE 6(continued)
Summary of Groundwater SVOC Results
Borings B12-B21
All results in parts per million (ppb)

Compound	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	RISC Res.	RISC Ind.
Acenapthene	ND	ND	200	920	1,100	1,600	50	610	2,900	ND	460	4,200
Acenapthylene	ND	ND	ND	ND	ND	540	ND	540	100	ND	NL	NL
Anthracene	ND	ND	23	**280**	ND	**500**	**50**	**84**	**430**	ND	43	43
Benzo (a) anthracene	ND	ND	ND	**130**	**170**	**130**	ND	ND	**190**	ND	1.2	3.9
Benzo (a) pyrene	ND	ND	ND	**73**	**96**	**80**	ND	ND	**100**	ND	0.2	1.5
Benzo (a) flouranthene	ND	ND	ND	52	84	40	ND	ND	160	ND	NL	NL
Benzo (ghi) perylene	ND	ND	ND	30	30	ND	ND	ND	ND	ND	NL	NL
Benzo (k) flouranthene	ND	ND	ND	**70**	**120**	ND	ND	ND	**160**	ND	0.8	0.8
Chrysene	ND	ND	ND	ND	**180**	**140**	ND	**30**	**210**	ND	1.6	1.6
Dibenzo (a,h) anthacene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Dibenzofuran	ND	ND	150	570	650	820	29	410	1,800	ND	NL	NL
Fluroanthene	ND	ND	22	**490**	**710**	**710**	ND	140	**890**	ND	210	210
Fluorene	ND	ND	170	650	1.1	0.88	ND	0.41	1.3	ND	310	2,000
2-Methylnapthalene	ND	ND	24	20	1,200	1,200	41	1,100	2,000	ND	NL	NL
Ideno (1,2,3-cd) pyrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.1
Naphthalene	ND	ND	**130**	**1,100**	**8,100**	**13,000**	ND	**10,000**	**11,000**	170	8.3	2,000
Pentachlorophenol	ND	ND	ND	ND	**11,000**	**3,000**	ND	**6,500**	**2,900**	ND	1.0	24
Phenanthrene	ND	ND	96	1,500	2,500	2,500	66	570	2,000	ND	NL	NL
Tetrachlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	2,200	NL	NL
Pyrene	ND	ND	**20**	**620**	**900**	**840**	ND	20	**1,200**	ND	140	140
1,2,4-trichlorobenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.0	77
2-chlorophenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
p-chloro-m-cresol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
Phenol	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	61	320

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial
ND = Not detected above the laboratory quantitation limit

TABLE 7
Summary of Groundwater VOC Results
Borings B1-B11
All results in parts per billion (ppb)

Compound	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	RISC Res.	RISC Ind.
Benzene	ND	ND	ND	ND	ND	ND	36	ND	ND	**118**	ND	5	99
ethylbenzene	ND	ND	ND	ND	ND	ND	ND	27	ND	24	ND	700	1,000
Toluene	ND	ND	ND	ND	ND	ND	ND	20	ND	69	ND	1,000	20,000
Xylenes	ND	ND	ND	ND	ND	ND	ND	102	18	122	ND	1,000	180
Styrene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	100	20,000
1,2,4 Trimethylbenzne	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL
1,3,5 Trimethylbenzene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	NL	NL

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial
ND = Not detected above the laboratory quantitation limit

TABLE 7(continued)
Summary of Groundwater VOC Results
Borings B12-B21
All results in parts per billion (ppb)

Compound	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	RISC Res.	RISC Ind.
Benzene	ND	ND	ND	ND	ND	12	ND	35	23	ND	5	99
ethylbenzene	ND	ND	ND	ND	10	11	ND	20	55	ND	700	1,000
Toluene	ND	ND	ND	ND	ND	ND	ND	25	64	ND	1,000	20,000
Xylenes	ND	ND	ND	ND	40	ND	12	54	167	ND	1,000	180
Styrene	ND	ND	ND	ND	ND	12	ND	9.7	92	ND	100	20,000
1,2,4 Trimethylbenzne	ND	ND	ND	33	ND	46	14	36	85	ND	NL	NL
1,3,5 Trimethylbenzene	ND	ND	ND	ND	ND	46	ND	12	41	ND	NL	NL

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial
ND = Not detected above the laboratory quantitation limit

TABLE 8
Summary of Groundwater RCRA Appendix 9 Metal Results
Boring B12-B21
All results in parts per million (ppm)

Compound	B12	B13	B14	B15	B16	B17	B18	B19	B20	B21	RISC Res.	RISC Ind.
Arsenic	ND	ND	ND	**0.15**	**0.21**	NA	ND	ND	ND	**0.24**	0.05	0.05
Barium	0.29	0.39	0.33	1.5	0.48	NA	0.16	0.38	0.85	0.88	2	7.2
Chromium	0.017	0.11	0.11	0.16	0.22	NA	ND	0.092	0.08	0.12	0.1	0.31
Cobalt	0.013	0.066	0.014	0.035	0.04	NA	ND	0.034	0.031	0.038	NL	NL
Copper	0.029	0.10	0.12	0.089	0.2	NA	ND	0.2	0.19	0.21	1.3	3.8
Lead	ND	ND	ND	**0.082**	**0.11**	NA	ND	ND	**0.063**	0.12	0.015	0.042
Nickel	ND	0.043	0.028	0.042	0.064	NA	ND	0.045	ND	0.061	0.73	2
Selenium	0.11	0.3	0.17	0.27	0.29	NA	ND	0.36	0.38	0.29	0.05	0.51
Silver	ND	0.017	0.017	0.03	0.003	NA	ND	0.02	0.03	0.034	0.18	0.51
Vanadium	0.028	0.079	0.085	0.16	0.14	NA	ND	0.12	0.02	0.14	NL	NL
Zinc	0.06	0.2	0.21	0.42	0.59	NA	0.035	0.27	0.25	0.44	11	31

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential

Bold = Constituent concentration above the IDEM-default closure values for Industrial/ Commercial

ND = Not detected above the laboratory quantitation limit

NA = Not analyzed do to insufficient amounts of water

TABLE 9
Summary of Groundwater TPH Analytical Results
Borings B12-B21
All results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'	IDEM closure
TPH DRO	ND	ND	0.9	2.5	7	10	1.2	5.2	28	1.6	NA
TPH GRO	ND	ND	ND	ND	ND	0.63	ND	ND	1.7	ND	NA

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential

ND = Not detected above the laboratory quantitation limit

TABLE 10
Summary of Groundwater pH and Alkalinity Results
Borings B12 through B21
Results in parts per million (ppm)

Compound	B12 14-16'	B13 10-12'	B14 16-18'	B15 16'18'	B16 10-12'	B17 8-10'	B18 2-4'	B19 16-18'	B20 18-20'	B21 10-12'
pH	NA	NA	7.1	7.6	6.9	NA	7.3	6.9	6.8	NA
Alkalinity, Bicarbonate	NA	NA	440	650	600	NA	380	620	880	NA
Alkalinity, Carbonate	NA	NA	ND	ND	ND	NA	ND	ND	ND	NA

Prepared at the request of counsel for the purposes of rendering legal advice: Privileged and Confidential
ND = Not Detected Above Laboratory Detection Limits
NA = Not Analyzed

Appendix C

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-1	MW-1	MW-2	MW-2	MW-2	MW-3	MW-3		
Depth (feet)		0-2	17 to 19	0-2	16 to 18	16 to 18 Duplicate	0 to 2	16-18		
Date		7-May-07	7-May-07	9-May-07	9-May-07	9-May-07	8-May-07	8-May-07		
Parameter	**Units**								**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Volatile Organic Compounds (8260B)										
Acetone	mg/kg	0.079	<0.056	<0.057	<0.061	<0.057	0.062	<0.057	28	370
Acrylonitrile	mg/kg	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	<0.011	NS	NS
Benzene	mg/kg	0.00081	0.0057	0.0017	0.0022	0.0012	<0.0011	0.0033	0.034	0.35
Bromobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Bromodichloromethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.51	0.51
Bromoform	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.6	2.7
Bromomethane	mg/kg	<0.0056	<0.0056	<0.0057	<0.0061	<0.0057	<0.0056	<0.0057	0.052	0.7
n-Butylbenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
sec-Butylbenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
tert-Butylbenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Carbon tetrachloride	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.066	0.29
Chlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	1.3	27
Chlorodibromomethane	mg/kg	<0.0011	0.0012	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Chloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.056	<0.056	<0.057	<0.061	<0.057	<0.056	<0.057	NS	NS
Chloroform	mg/kg	<0.0056	<0.0056	<0.0057	<0.0061	<0.0057	<0.0056	<0.0057	0.47	4.7
Chloromethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
2-Chlorotoluene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
4-Chlorotoluene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.0056	<0.0056	<0.0057	<0.0061	<0.0057	<0.0056	<0.0057	NS	NS
1,2-Dibromoethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.00034	0.0096
Dibromomethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	17	220
1,3-Dichlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	2.2	3.4
Dichlorodifluoromethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,1-Dichloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	5.6	58
1,2-Dichloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.68	14
1,2-Dichloropropane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.03	0.25
1,1-Dichloropropene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,3-Dichloropropane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
2,2-Dichloropropane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Di-isopropyl ether	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Ethylbenzene	mg/kg	0.00041	0.003	<0.0011	0.0038	0.002	0.00041	0.002	13	160
Hexachlorobutadiene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	24	66
Isopropylbenzene	mg/kg	<0.0011	0.00036	<0.0011	0.0011	0.00046	<0.0011	<0.0011	11	42
p-Isopropyltoluene	mg/kg	<0.0011	<0.0011	<0.0011	0.00062	<0.0011	<0.0011	<0.0011	NS	NS
2-Butanone (MEK)	mg/kg	0.01	<0.011	<0.011	<0.012	<0.011	<0.011	<0.011	35	250
Methylene Chloride	mg/kg	<0.0056	<0.0056	<0.0057	<0.0061	<0.0057	<0.0056	<0.0057	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.18	3.2
Naphthalene	mg/kg	<0.0056	<0.0056	0.0018	1.2	1.2	0.0053	0.0012	0.7	170
n-Propylbenzene	mg/kg	<0.0011	0.00062	<0.0011	0.00098	0.00039	<0.0011	0.00048	36	300
Styrene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	3.5	550

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-1	MW-1	MW-2	MW-2	MW-2	MW-3	MW-3		
Depth (feet)		0-2	17 to 19	0-2	16 to 18	16 to 18 Duplicate	0 to 2	16-18		
Date		7-May-07	7-May-07	9-May-07	9-May-07	9-May-07	8-May-07	8-May-07		
Parameter	**Units**								**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Volatile Organic Compounds (8260B)										
1,1,1,2-Tetrachloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.007	0.11
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
Tetrachloroethene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	0.00078	0.00041	0.058	0.64
Toluene	mg/kg	0.0016	0.011	<0.0057	0.0036	<0.0057	0.0015	0.0079	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.03	0.3
Trichloroethene	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	NS	NS
1,2,4-Trimethylbenzene	mg/kg	<0.0011	0.002	<0.0011	0.011	0.005	<0.0011	0.0019	2.5	170
1,2,3-Trimethylbenzene	mg/kg	<0.0011	0.00071	<0.0011	0.0082	0.0027	<0.0011	0.00052	NS	NS
1,3,5-Trimethylbenzene	mg/kg	<0.0011	0.00072	<0.0011	0.0035	0.0016	<0.0011	0.0007	0.61	68
Vinyl chloride	mg/kg	<0.0011	<0.0011	<0.0011	<0.0012	<0.0011	<0.0011	<0.0011	0.013	0.027
Xylenes, Total	mg/kg	0.00056	0.0066	<0.0034	0.009	0.0034	0.0018	0.0051	170	170
Semi-Volatile Organic Compounds (8270C)										
Acenaphthene	mg/kg	<0.37	<0.37	0.088	0.49	0.54	<0.37	<0.38	130	1200
Acenaphthylene	mg/kg	<0.37	<0.37	<0.38	0.034	<0.38	<0.37	<0.38	18	180
Anthracene	mg/kg	<0.37	<0.37	0.092	0.19	<0.38	<0.37	<0.38	51	51
Benzidine	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
Benzo(a)anthracene	mg/kg	0.16	<0.37	0.83	<0.40	<0.38	<0.37	<0.38	5	15
Benzo(b)fluoranthene	mg/kg	0.32	<0.37	1.5	<0.40	<0.38	<0.37	<0.38	5	15
Benzo(k)fluoranthene	mg/kg	0.095	<0.37	0.58	<0.40	<0.38	<0.37	<0.38	39	39
Benzo(g,h,i)perylene	mg/kg	0.09	<0.37	0.64	<0.40	<0.38	<0.37	<0.38	NS	NS
Benzo(a)pyrene	mg/kg	0.18	<0.37	1.6	<0.40	<0.38	<0.37	<0.38	0.5	1.5
Bis(2-chlorethoxy)methane	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
Bis(2-chloroethyl)ether	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.0007	0.012
Bis(2-chloroisopropyl)ether	mg/kg	<0.37	<0.37	<0.38	0.3	<0.38	<0.37	<0.38	0.027	0.26
4-Bromophenyl-phenylether	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
2-Chloronaphthalene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	42	560
4-Chlorophenyl-phenylether	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
Chrysene	mg/kg	0.18	<0.37	1.1	<0.40	<0.38	<0.37	<0.38	25	25
Dibenz(a,h)anthracene	mg/kg	<0.37	<0.37	0.067	<0.40	<0.38	<0.37	<0.38	0.5	1.5
3,3-Dichlorobenzidine	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.062	0.21
2,4-Dinitrotoluene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.0091	0.031
2,6-Dinitrotoluene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.0091	0.031
Fluoranthene	mg/kg	0.28	<0.37	0.6	0.13	<0.38	0.029	<0.38	880	880
Fluorene	mg/kg	<0.37	<0.37	0.036	0.56	0.6	<0.37	<0.38	170	1100
Hexachlorobenzene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	2.2	3.9
Hexachloro-1,3-butadiene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	24	66
Hexachlorocyclopentadiene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	400	720
Hexachloroethane	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	<0.37	0.56	<0.40	<0.38	<0.37	<0.38	3.1	3.1
Isophorone	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	5.3	18
Naphthalene	mg/kg	<0.37	<0.37	0.46	1.4	6.4	<0.37	<0.38	0.7	170

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-1	MW-1	MW-2	MW-2	MW-2	MW-3	MW-3		
Depth (feet)		0-2	17 to 19	0-2	16 to 18	16 to 18 Duplicate	0 to 2	16-18		
Date		7-May-07	7-May-07	9-May-07	9-May-07	9-May-07	8-May-07	8-May-07		
Parameter	**Units**								**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Semi-Volatile Organic Compounds (8270C)										
Nitrobenzene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.028	0.34
n-Nitrosodimethylamine	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
n-Nitrosodiphenylamine	mg/kg	<0.37	<0.37	<0.38	0.055	<0.38	<0.37	<0.38	9.7	32
n-Nitrosodi-n-propylamine	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.0006	0.002
Phenanthrene	mg/kg	0.11	<0.37	0.59	1	0.65	<0.37	<0.38	13	170
Benzylbutyl phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	310	310
Bis(2-ethylhexyl)phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	330	980
Di-n-butyl phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	760	760
Diethyl phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	450	840
Dimethyl phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	1100	1100
Di-n-octyl phthalate	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	2000	2000
Pyrene	mg/kg	0.32	<0.37	0.73	0.05	<0.38	<0.37	<0.38	570	570
1,2,4-Trichlorobenzene	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	5.3	77
4-Chloro-3-methylphenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
2-Chlorophenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.75	10
2,4-Dichlorophenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	1.1	3
2,4-Dimethylphenol	mg/kg	<0.37	<0.37	<0.38	0.067	0.06	<0.37	<0.38	9	25
4,6-Dinitro-2-methylphenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
2,4-Dinitrophenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	0.29	0.82
2-Nitrophenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	<0.38	NS	NS
4-Nitrophenol	mg/kg	<0.37	<0.37	<0.38	<0.40	<0.38	<0.37	0.064	NS	NS
Pentachlorophenol	mg/kg	<0.37	<0.37	<0.38	0.63	1.1	<0.37	0.096	0.028	0.66
Phenol	mg/kg	<0.37	<0.37	0.095	<0.40	<0.38	<0.37	<0.38	56	160
2,4,6-Trichlorophenol	mg/kg	<0.37	<0.37	<0.38	0.057	<0.38	<0.37	<0.38	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)										
TPH ERO	mg/kg	140	3.6	260	4	94	27	<4.6	80	1000
TPH GRO	mg/kg	14	<4.5	70	23	30	9.8	<4.6	NS	NS
Metals (6010B)										
Arsenic	mg/kg	3.7	<5.6	0.95	2.4	2	3	<5.7	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
Industrial Default Level - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.

- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 3 - Summary of Soil COC Analytical D
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-4	MW-4	MW-5	MW-5	MW-6	MW-6		
Depth (feet)		0-2	10-12	0-2	10-11	0-2	9-10		
Date		8-May-07	8-May-07	8-May-07	8-May-07	7-May-07	7-May-07		
Parameter	**Units**							**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Volatile Organic Compounds (8260B)									
Acetone	mg/kg	0.038	<240	<0.056	<0.066	<18.	<0.056	28	370
Acrylonitrile	mg/kg	<0.010	<48	<0.011	<0.013	<3.6	<0.011	NS	NS
Benzene	mg/kg	0.0011	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.034	0.35
Bromobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Bromodichloromethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.51	0.51
Bromoform	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.6	2.7
Bromomethane	mg/kg	<0.0050	<24	<0.0056	<0.0066	<1.8	<0.0056	0.052	0.7
n-Butylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
sec-Butylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	0.084	<0.0011	NS	NS
tert-Butylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Carbon tetrachloride	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.066	0.29
Chlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	1.3	27
Chlorodibromomethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Chloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.050	<240	<0.056	<0.066	<18.	<0.056	NS	NS
Chloroform	mg/kg	<0.0050	<24.	<0.0056	<0.0066	<1.8	<0.0056	0.47	4.7
Chloromethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
2-Chlorotoluene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
4-Chlorotoluene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.0050	<24.	<0.0056	<0.0066	<1.8	<0.0056	NS	NS
1,2-Dibromoethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.00034	0.0096
Dibromomethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	17	220
1,3-Dichlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	2.2	3.4
Dichlorodifluoromethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,1-Dichloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	5.6	58
1,2-Dichloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.68	14
1,2-Dichloropropane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.03	0.25
1,1-Dichloropropene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,3-Dichloropropane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
2,2-Dichloropropane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Di-isopropyl ether	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Ethylbenzene	mg/kg	0.00088	1.4	<0.0011	<0.0013	0.29	<0.0011	13	160
Hexachlorobutadiene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	24	66
Isopropylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	0.086	<0.0011	11	42
p-Isopropyltoluene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	0.18	<0.0011	NS	NS
2-Butanone (MEK)	mg/kg	<0.010	<48.	<0.011	<0.013	<3.6	<0.011	35	250
Methylene Chloride	mg/kg	<0.0050	<24.	<0.0056	<0.0066	<1.8	<0.0056	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.010	<48.	<0.011	<0.013	<3.6	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Naphthalene	mg/kg	0.0009	3100	0.0022	0.0017	790	0.0055	0.7	170
n-Propylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	36	300
Styrene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	0.28	<0.0011	35	550

Table 3 - Summary of Soil COC Analytical D
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-4	MW-4	MW-5	MW-5	MW-6	MW-6		
Depth (feet)		0-2	10-12	0-2	10-11	0-2	9-10		
Date		8-May-07	8-May-07	8-May-07	8-May-07	7-May-07	7-May-07		
Parameter	**Units**							**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Volatile Organic Compounds (8260B)									
1,1,1,2-Tetrachloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.007	0.11
1,1,2-Trichloro-1,2,2-trifluoroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
Tetrachloroethene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	0.0006	0.058	0.64
Toluene	mg/kg	0.003	<24.	<0.0056	<0.0066	0.63	<0.0056	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	0.1	<0.0011	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.03	0.3
Trichloroethene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	NS	NS
1,2,4-Trimethylbenzene	mg/kg	0.00077	15	<0.0011	<0.0013	5.1	0.00057	2.5	170
1,2,3-Trimethylbenzene	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	1.8	<0.0011	NS	NS
1,3,5-Trimethylbenzene	mg/kg	<0.0010	6.4	<0.0011	<0.0013	2.8	<0.0011	0.61	68
Vinyl chloride	mg/kg	<0.0010	<4.8	<0.0011	<0.0013	<0.36	<0.0011	0.013	0.027
Xylenes, Total	mg/kg	0.002	9.3	<0.0034	<0.0040	2.9	0.0016	170	170
Semi-Volatile Organic Compounds (8270C)									
Acenaphthene	mg/kg	<0.33	0.63	<7.4	<0.43	0.13	<0.37	130	1200
Acenaphthylene	mg/kg	<0.33	0.75	<7.4	<0.43	0.038	<0.37	18	180
Anthracene	mg/kg	<0.33	3.1	<7.4	<0.43	0.12	<0.37	51	51
Benzidine	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
Benzo(a)anthracene	mg/kg	<0.33	5.5	<7.4	<0.43	0.08	<0.37	5	15
Benzo(b)fluoranthene	mg/kg	<0.33	12	<7.4	<0.43	0.12	<0.37	5	15
Benzo(k)fluoranthene	mg/kg	<0.33	1.4	<7.4	<0.43	<0.43	<0.37	39	39
Benzo(g,h,i)perylene	mg/kg	<0.33	3.3	<7.4	<0.43	0.051	<0.37	NS	NS
Benzo(a)pyrene	mg/kg	<0.33	8.1	<7.4	<0.43	0.043	<0.37	0.5	1.5
Bis(2-chlorethoxy)methane	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
Bis(2-chloroethyl)ether	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.0007	0.012
Bis(2-chloroisopropyl)ether	mg/kg	<0.33	<3.6	<7.4	<0.43	0.047	<0.37	0.027	0.26
4-Bromophenyl-phenylether	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
2-Chloronaphthalene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	42	560
4-Chlorophenyl-phenylether	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
Chrysene	mg/kg	<0.33	12	<7.4	<0.43	0.12	0.046	25	25
Dibenz(a,h)anthracene	mg/kg	<0.33	0.31	<7.4	<0.43	<0.43	<0.37	0.5	1.5
3,3-Dichlorobenzidine	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.062	0.21
2,4-Dinitrotoluene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
2,6-Dinitrotoluene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
Fluoranthene	mg/kg	<0.33	7	1	<0.43	0.3	<0.37	880	880
Fluorene	mg/kg	<0.33	0.66	<7.4	<0.43	0.093	<0.37	170	1100
Hexachlorobenzene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	2.2	3.9
Hexachloro-1,3-butadiene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	24	66
Hexachlorocyclopentadiene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	400	720
Hexachloroethane	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	<0.33	3.1	<7.4	<0.43	0.042	<0.37	3.1	3.1
Isophorone	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	5.3	18
Naphthalene	mg/kg	<0.33	1.6	<7.4	<0.43	0.11	0.11	0.7	170

Table 3 - Summary of Soil COC Analytical D
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-4	MW-4	MW-5	MW-5	MW-6	MW-6		
Depth (feet)		0-2	10-12	0-2	10-11	0-2	9-10		
Date		8-May-07	8-May-07	8-May-07	8-May-07	7-May-07	7-May-07		
Parameter	**Units**							**Default Residental Closure Levels**	**Default Industrial Closure Levels**
Semi-Volatile Organic Compounds (8270C)									
Nitrobenzene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.028	0.34
n-Nitrosodimethylamine	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
n-Nitrosodiphenylamine	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	9.7	32
n-Nitrosodi-n-propylamine	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.0006	0.002
Phenanthrene	mg/kg	<0.33	3.7	<7.4	<0.43	0.29	0.069	13	170
Benzylbutyl phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	310	310
Bis(2-ethylhexyl)phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	330	980
Di-n-butyl phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	760	760
Diethyl phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	450	840
Dimethyl phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	1100	1100
Di-n-octyl phthalate	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	2000	2000
Pyrene	mg/kg	<0.33	6.6	1	<0.43	0.17	<0.37	570	570
1,2,4-Trichlorobenzene	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	5.3	77
4-Chloro-3-methylphenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
2-Chlorophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.75	10
2,4-Dichlorophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	1.1	3
2,4-Dimethylphenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	9	25
4,6-Dinitro-2-methylphenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
2,4-Dinitrophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.29	0.82
2-Nitrophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
4-Nitrophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	NS	NS
Pentachlorophenol	mg/kg	<0.33	4.6	<7.4	<0.43	0.39	<0.37	0.028	0.66
Phenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	56	160
2,4,6-Trichlorophenol	mg/kg	<0.33	<3.6	<7.4	<0.43	<0.43	<0.37	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)									
TPH ERO	mg/kg	19	280	94	7.6	13000	38	25	330
TPH GRO	mg/kg	<4.0	430	200	<5.3	86	27	NS	NS
Metals (6010B)									
Arsenic	mg/kg	3.2	<1.1	3.5	4.6	14	<1.1	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
Industrial Default Level - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-1	HAB-1	HAB-1	HAB-2	HAB-2	HAB-2	HAB-3	HAB-3	HAB-3	HAB-4	HAB-4	HAB-5	HAB-5	HAB-6		
Depth (feet)		0-0.5	23-23.5	25-26	0-0.5	22-22.5	23-24	0-0.5	22-22.5	23.5-24	0-0.5	15-15.5	0-0.5	12-12.5	0-0.5		
Date		25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	26-Jun-08		
Parameter	**Units**															**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)																	
Acetone	mg/kg	<0.110	<0.118	<0.118	<0.119	<0.118	<0.112	<0.111	<5.550	<0.116	<0.106	<0.104	<0.104	<0.123	<0.115	28	370
Acrolein	mg/kg	<0.110	<0.118	<0.118	<0.119	<0.118	<0.112	<0.111	<5.550	<0.116	<0.106	<0.104	<0.104	<0.123	<0.115	0.00027	0.25
Acrylonitrile	mg/kg	<0.110	<0.118	<0.118	<0.119	<0.118	<0.112	<0.111	<5.550	<0.116	<0.106	<0.104	<0.104	<0.123	<0.115	NS	NS
Benzene	mg/kg	<0.005	<0.006	0.0313	<0.006	<0.006	0.0128	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.034	0.35
Bromobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Bromochloromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Bromodichloromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.51	0.51
Bromoform	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.6	2.7
Bromomethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.052	0.7
n-Butanol	mg/kg	<0.055	<0.059	<0.059	<0.060	<0.059	<0.056	<0.056	<2.800	<0.058	<0.053	<0.052	<0.052	<0.062	<0.057	16	44
2-Butanone (MEK)	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	35	250
n-Butylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	17.8	0.0277	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
sec-Butylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	0.0328	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
tert-Butylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Carbon Disulfide	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	10	82
Carbon tetrachloride	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.066	0.29
Chlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	1.3	27
Chloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.055	<0.059	<0.059	<0.060	<0.059	<0.056	<0.056	<2.800	<0.058	<0.053	<0.052	<0.052	<0.062	<0.057	NS	NS
Chloroform	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.47	4.7
Chloromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
2-Chlorotoluene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
4-Chlorotoluene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Dibromochloromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2-Dibromoethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.00034	0.0096
Dibromomethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	17	220
1,3-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	2.2	3.4
trans-1,4-Dichloro-2-butene	mg/kg	<0.110	<0.118	<0.118	<0.119	<0.118	<0.112	<0.111	<5.550	<0.116	<0.106	<0.104	<0.104	<0.123	<0.115	NS	NS
Dichlorodifluoromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,1-Dichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	5.6	58
1,2-Dichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.68	14
1,2-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.03	0.25
1,3-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
2,2-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,1-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Ethylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	0.0241	<0.005	<0.005	<0.005	<0.006	<0.006	13	160
Ethyl methacrylate	mg/kg	<0.110	<0.118	<0.118	<0.119	<0.118	<0.112	<0.111	<5.550	<0.116	<0.106	<0.104	<0.104	<0.123	<0.115	NS	NS
Hexachloro-1,3-butadiene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	24	66
n-Hexane	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	100	100
2-Hexanone	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	NS	NS
Iodomethane	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	NS	NS
Isopropylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	0.0171	<0.005	<0.005	<0.005	<0.006	<0.006	11	42
p-Isopropyltoluene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
Methylene Chloride	mg/kg	<0.022	<0.024	<0.024	<0.024	<0.024	<0.022	<0.022	<1.100	<0.023	<0.021	<0.021	<0.021	<0.025	<0.023	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.18	3.2
Naphthalene	mg/kg	<0.005	<0.006	<0.006	<0.006	0.00818	<0.006	<0.006	1.14	0.0648	0.00964	<0.005	<0.005	<0.006	<0.006	0.7	170
n-Propylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.394	0.156	<0.005	<0.005	<0.005	<0.006	<0.006	36	300
Styrene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	3.5	550
1,1,1,2-Tetrachloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.007	0.11
Tetrachloroethene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.058	0.64
Toluene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.03	0.3

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-1	HAB-1	HAB-1	HAB-2	HAB-2	HAB-2	HAB-3	HAB-3	HAB-3	HAB-4	HAB-4	HAB-5	HAB-5	HAB-6		
Depth (feet)		0-0.5	23-23.5	25-26	0-0.5	22-22.5	23-24	0-0.5	22-22.5	23.5-24	0-0.5	15-15.5	0-0.5	12-12.5	0-0.5		
Date		25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	26-Jun-08		
Parameter	**Units**															**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B) Continued																	
Trichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	NS	NS
1,2,4-Trimethylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	0.00631	<0.006	<0.300	0.357	<0.005	<0.005	<0.005	<0.006	<0.006	2.5	170
1,3,5-Trimethylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.300	<0.006	<0.005	<0.005	<0.005	<0.006	<0.006	0.61	68
Vinyl acetate	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	<0.011	<0.011	<5.550	<0.012	<0.011	<0.010	<0.010	<0.012	<0.011	2.3	430
Vinyl chloride	mg/kg	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.100	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.013	0.027
Xylenes, Total	mg/kg	<0.011	<0.012	<0.012	<0.012	<0.012	0.00922	<0.011	<5.550	0.0256	<0.011	<0.010	<0.010	<0.012	<0.011	170	170
	mg/kg																
Semi-Volatile Organic Compounds (8270C)																	
Acenaphthene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	130	1800
Acenaphthylene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	18	180
Aniline	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
Anthracene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2000	2000
Benzo(a)anthracene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.75	5
Benzo(a)pyrene	mg/kg	<0.36	<0.39	<0.39	0.42	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.5	1.5
Benzo(b)fluoranthene	mg/kg	0.37	<0.39	<0.39	0.65	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	5	15
Benzo(g,h,i)perylene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
Benzo(k)fluoranthene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	50	150
Benzoic Acid	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	590	1600
Benzyl Alcohol	mg/kg	<0.73	<0.078	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	48	140
4-Bromophenyl-phenylether	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
Butylbenzylphthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	310	310
Carbazole	mg/kg	<0.73	<0.078	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	5.9	20
4-Chloro-3-methylphenol	mg/kg	<0.73	<0.078	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	NS	NS
4-Chloroaniline	mg/kg	<0.73	<0.078	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	NS	NS
bis(2-chloroethoxy)methane	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
bis(2-chloroethyl)ether	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.0007	0.012
bis(2-chloroisopropyl)ether	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.027	0.26
2-Chloronapthalene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	42	560
2-Chlorophenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.75	10
4-Chlorophenylphenyl ether	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
Chrysene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	1.61	500	1500
Dibenz(a,h)anthracene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.5	1.5
Dibenzofuran	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	4.9	65
1,2-Dichlorobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	17	220
1,3-Dichlorobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2.2	3.4
3,3-Dichlorobenzidine	mg/kg	<0.73	<0.39	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	0.062	0.21
2,4-Dichlorophenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	1.1	3
Diethylphthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	450	840
2,4-Dimethylphenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	9	25
Dimethylphthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	1100	1100
Di-n-butylphthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
4,6-Dinitro-2-methylphenol	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	NS	NS
2,4-Dinitrophenol	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	0.29	0.82
2,4-Dinitrotoluene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.0091	0.031
2,6-Dinitrotoluene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.0091	0.031
Di-n-octylphthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2000	2000
bis(2-ethylhexyl)phthalate	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	300	980
Fluoranthene	mg/kg	0.45	<0.39	<0.39	0.52	<0.39	<0.37	<0.37	<0.37	<0.38	0.45	<0.34	<0.34	<0.41	<0.38	2000	2000
Fluorene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	170	2000
Hexachloro-1,3-butadiene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	24	66
Hexachlorobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2.2	3.9
Hexachlorocyclopentadiene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	400	720
Hexachloroethane	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	5	15
Isophorone	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	5.3	18
2-Methylnapthalene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	1.26	3.1	42
2-Methylphenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
3&4-Methylphenol	mg/kg	<0.73	<0.78	<0.78	<0.79	<0.78	<0.74	<0.73	<0.73	<0.77	<0.70	<0.69	<0.69	<0.81	<0.76	NS	NS
Napthalene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	1.14	0.7	170
2-Nitroaniline	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	0.67	1.9
3-Nitroaniline	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	NS	NS

Table 3 - Summary of Soil COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-1	HAB-1	HAB-1	HAB-2	HAB-2	HAB-2	HAB-3	HAB-3	HAB-3	HAB-4	HAB-4	HAB-5	HAB-5	HAB-6		
Depth (feet)		0-0.5	23-23.5	25-26	0-0.5	22-22.5	23-24	0-0.5	22-22.5	23.5-24	0-0.5	15-15.5	0-0.5	12-12.5	0-0.5		
Date		25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	25-Jun-08	26-Jun-08		
Parameter	**Units**															**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Semi-Volatile Organic Compounds (8270C) Continued																	
4-Nitroaniline	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	NS	NS
Nitrobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.028	0.34
2-Nitrophenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	NS	NS
4-Nitrophenol	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	NS	NS
n-Nitrosodi-n-propylamine	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.0006	0.002
N-Nitrosodiphenylamine	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	9.7	32
Pentachlorophenol	mg/kg	<1.76	<1.88	<1.88	<1.90	<1.88	<1.80	<1.78	<1.78	<1.86	<1.70	<1.67	<1.67	<1.98	<1.84	0.028	0.66
Phenanthrene	mg/kg	<0.33	<0.35	<0.35	<0.36	<0.35	<0.34	<0.33	<0.33	<0.35	<0.32	<0.33	<0.31	<0.37	1.72	13	170
Phenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	1.61	56	160
Pyrene	mg/kg	0.74	<0.39	<0.39	0.74	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	0.66	2000	2000
1,2,4-Trichlorobenzene	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	5.3	77
2,4,5-Trichlorophenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	250	690
2,4,6-Trichlorophenol	mg/kg	<0.36	<0.39	<0.39	<0.39	<0.39	<0.37	<0.37	<0.37	<0.38	<0.35	<0.34	<0.34	<0.41	<0.38	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)																	
TPH-Gasoline	mg/kg	<16.5	<17.6	<17.6	<17.9	<17.6	<16.9	<16.7	374	<17.4	<16	<15.6	<15.6	<15	<17.2	25	330
TPH-Extended	mg/kg	<22	<24	<24	<24	<24	<22	<22	35	<23	<21	<21	66	<25	283	80	1000
Metals (6010B)																	
Arsenic	mg/kg	2.9	<2	<2	<2	<2	<2	2.5	<2	<2	<2	<2	<2	<2	<2	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.
IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-6	HAB-7	HAB-7	HAB-7	HAB-8	HAB-8	HAB-9	HAB-9	HAB-10	HAB-10	HAB-11	HAB-11	HAB-12	HAB-12	HAB-13	HAB-13		
Depth (feet)		4-4.25	0-0.5	0-0.5 Dup	4.5-5	0-0.5	12-12.5	0-0.5	11-11.5	0-0.5	4.5-5	0-0.5	12.5-13	0-0.5	10-10.5	0-0.5	10.5-11		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08		
Parameter	**Units**																	**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)																			
Acetone	mg/kg	<0.106	<0.102	<0.102	<0.108	<0.105	<0.120	<0.103	<0.122	<0.104	<0.106	<0.106	<0.109	<0.115	<0.118	<0.114	<0.112	28	370
Acrolein	mg/kg	<0.106	<0.102	<0.102	<0.108	<0.105	<0.120	<0.103	<0.122	<0.104	<0.106	<0.106	<0.109	<0.115	<0.118	<0.114	<0.112	0.00027	0.25
Acrylonitrile	mg/kg	<0.106	<0.102	<0.102	<0.108	<0.105	<0.120	<0.103	<0.122	<0.104	<0.106	<0.106	<0.109	<0.115	<0.118	<0.114	<0.112	NS	NS
Benzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.034	0.35
Bromobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Bromochloromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Bromodichloromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.51	0.51
Bromoform	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.6	2.7
Bromomethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.052	0.7
n-Butanol	mg/kg	<0.053	<0.051	<0.051	<0.054	<0.053	<0.060	<0.052	<0.061	<0.052	<0.053	<0.053	<0.054	<0.057	<0.059	<0.057	<0.056	16	44
2-Butanone (MEK)	mg/kg	<0.011	<0.010	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	35	250
n-Butylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
sec-Butylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
tert-Butylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Carbon Disulfide	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	10	82
Carbon tetrachloride	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.066	0.29
Chlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	1.3	27
Chloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.053	<0.051	<0.051	<0.054	<0.053	<0.060	<0.052	<0.061	<0.052	<0.053	<0.053	<0.054	<0.057	<0.059	<0.057	<0.056	NS	NS
Chloroform	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.47	4.7
Chloromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
2-Chlorotoluene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
4-Chlorotoluene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Dibromochloromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2-Dibromoethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.00034	0.0096
Dibromomethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	17	220
1,3-Dichlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	2.2	3.4
trans-1,4-Dichloro-2-butene	mg/kg	<0.106	<0.102	<0.102	<0.108	<0.105	<0.120	<0.103	<0.122	<0.104	<0.106	<0.106	<0.109	<0.115	<0.118	<0.114	<0.112	NS	NS
Dichlorodifluoromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,1-Dichloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	5.6	58
1,2-Dichloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.68	14
1,2-Dichloropropane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.03	0.25
1,3-Dichloropropane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
2,2-Dichloropropane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,1-Dichloropropene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Ethylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	13	160
Ethyl methacrylate	mg/kg	<0.106	<0.102	<0.102	<0.108	<0.105	<0.120	<0.103	<0.122	<0.104	<0.106	<0.106	<0.109	<0.115	<0.118	<0.114	<0.112	NS	NS
Hexachloro-1,3-butadiene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	24	66
n-Hexane	mg/kg	<0.011	<0.010	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	100	100
2-Hexanone	mg/kg	<0.011	<0.010	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	NS	NS
Iodomethane	mg/kg	<0.011	<0.010	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	NS	NS
Isopropylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	11	42
p-Isopropyltoluene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
Methylene Chloride	mg/kg	<0.021	<0.020	<0.020	<0.022	<0.021	<0.024	<0.021	<0.024	<0.021	<0.021	<0.021	<0.022	<0.023	<0.024	<0.023	<0.022	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.011	<0.010	<0.010	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.18	3.2
Naphthalene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.7	170
n-Propylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	36	300
Styrene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	3.5	550
1,1,1,2-Tetrachloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.007	0.11
Tetrachloroethene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.058	0.64
Toluene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.03	0.3

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-6	HAB-7	HAB-7	HAB-7	HAB-8	HAB-8	HAB-9	HAB-9	HAB-10	HAB-10	HAB-11	HAB-11	HAB-12	HAB-12	HAB-13	HAB-13		
Depth (feet)		4-4.25	0-0.5	0-0.5 Dup	4.5-5	0-0.5	12-12.5	0-0.5	11-11.5	0-0.5	4.5-5	0-0.5	12.5-13	0-0.5	10-10.5	0-0.5	10.5-11		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08		
Parameter	**Units**																	**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B) Continued																			
Trichloroethene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	NS	NS
1,2,4-Trimethylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	2.5	170
1,3,5-Trimethylbenzene	mg/kg	<0.005	<0.005	<0.005	<0.005	<0.005	<0.006	<0.005	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.006	<0.006	<0.006	0.61	68
Vinyl acetate	mg/kg	<0.011	<10	<10	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	2.3	430
Vinyl chloride	mg/kg	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.013	0.027
Xylenes, Total	mg/kg	<0.011	<10	<10	<0.011	<0.011	<0.012	<0.010	<0.012	<0.010	<0.011	<0.011	<0.011	<0.011	<0.012	<0.011	<0.011	170	170
	mg/kg																		
Semi-Volatile Organic Compounds (8270C)																			
Acenaphthene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	130	1800
Acenaphthylene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	18	180
Aniline	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
Anthracene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	0.38	<0.36	<0.76	<0.39	<0.38	<0.37	2000	2000
Benzo(a)anthracene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	0.59	<0.36	2.53	<0.39	<0.38	<0.37	5	15
Benzo(a)pyrene	mg/kg	<0.35	<0.34	<0.34	<0.35	0.41	<0.40	<0.34	<0.40	<0.34	<0.35	0.68	<0.36	2.41	<0.39	<0.38	<0.37	0.5	1.5
Benzo(b)fluoranthene	mg/kg	<0.35	<0.34	<0.34	<0.35	0.63	<0.40	<0.34	<0.40	<0.34	<0.35	1.91	<0.36	3.56	<0.39	<0.38	<0.37	5	15
Benzo(g,h,i)perylene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	1.81	<0.36	1.61	<0.39	<0.38	<0.37	NS	NS
Benzo(k)fluoranthene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	0.44	<0.36	1.38	<0.39	<0.38	<0.37	50	150
Benzoic Acid	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	590	1600
Benzyl Alcohol	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	48	140
4-Bromophenyl-phenylether	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
Butylbenzylphthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	310	310
Carbazole	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	5.9	20
4-Chloro-3-methylphenol	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	NS	NS
4-Chloroaniline	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	NS	NS
bis(2-chloroethoxy)methane	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
bis(2-chloroethyl)ether	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.0007	0.012
bis(2-chloroisopropyl)ether	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.027	0.26
2-Chloronapthalene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	42	560
2-Chlorophenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.75	10
4-Chlorophenylphenyl ether	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
Chrysene	mg/kg	0.52	<0.34	<0.34	0.52	0.37	<0.40	<0.34	<0.40	0.57	<0.35	0.84	<0.36	2.64	<0.39	<0.38	<0.37	500	1500
Dibenz(a,h)anthracene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	0.36	<0.36	<0.76	<0.39	<0.38	<0.37	0.5	1.5
Dibenzofuran	mg/kg	0.4	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	4.9	65
1,2-Dichlorobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	17	220
1,3-Dichlorobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	2.2	3.4
3,3-Dichlorobenzidine	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	0.062	0.21
2,4-Dichlorophenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	1.1	3
Diethylphthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	450	840
2,4-Dimethylphenol	mg/kg	0.4	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	9	25
Dimethylphthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	1100	1100
Di-n-butylphthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
4,6-Dinitro-2-methylphenol	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	NS	NS
2,4-Dinitrophenol	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	0.29	0.82
2,4-Dinitrotoluene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.0091	0.031
2,6-Dinitrotoluene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.0091	0.031
Di-n-octylphthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	2000	2000
bis(2-ethylhexyl)phthalate	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	300	980
Fluoranthene	mg/kg	0.45	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	0.86	<0.36	4.25	<0.39	<0.38	<0.37	2000	2000
Fluorene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	170	2000
Hexachloro-1,3-butadiene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	24	66
Hexachlorobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	2.2	3.9
Hexachlorocyclopentadiene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	400	720
Hexachloroethane	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	1.28	<0.36	1.38	<0.39	<0.38	<0.37	5	15
Isophorone	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	5.3	18
2-Methylnapthalene	mg/kg	1.7	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	0.7	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	3.1	42
2-Methylphenol	mg/kg	0.5	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
3&4-Methylphenol	mg/kg	<0.70	<0.67	<0.67	<0.71	<0.69	<0.80	<0.68	<0.80	<0.69	<0.70	<0.70	<0.72	<1.52	<0.78	<0.75	<0.74	NS	NS
Napthalene	mg/kg	1.49	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	0.52	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.7	170
2-Nitroaniline	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	0.67	1.9
3-Nitroaniline	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	NS	NS

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-6	HAB-7	HAB-7	HAB-7	HAB-8	HAB-8	HAB-9	HAB-9	HAB-10	HAB-10	HAB-11	HAB-11	HAB-12	HAB-12	HAB-13	HAB-13		
Depth (feet)		4-4.25	0-0.5	0-0.5 Dup	4.5-5	0-0.5	12-12.5	0-0.5	11-11.5	0-0.5	4.5-5	0-0.5	12.5-13	0-0.5	10-10.5	0-0.5	10.5-11		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08		
Parameter	**Units**																	**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Semi-Volatile Organic Compounds (8270C) Continued																			
4-Nitroaniline	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	NS	NS
Nitrobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.028	0.34
2-Nitrophenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	NS	NS
4-Nitrophenol	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	NS	NS
n-Nitrosodi-n-propylamine	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.0006	0.002
N-Nitrosodiphenylamine	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	9.7	32
Pentachlorophenol	mg/kg	<1.70	<1.63	<1.63	<1.72	<1.68	<1.93	<1.65	<1.95	<1.67	<1.70	<1.70	<1.74	<3.68	<1.88	<1.82	<1.80	0.028	0.66
Phenanthrene	mg/kg	1.81	<0.31	<0.31	<0.32	0.39	<0.36	<0.31	<0.37	1.15	<0.32	0.46	<0.33	2.3	<0.35	<0.34	<0.34	13	170
Phenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	56	160
Pyrene	mg/kg	0.52	<0.34	<0.34	<0.35	0.4	<0.40	<0.34	<0.40	0.46	<0.35	1.6	<0.36	5.17	<0.39	<0.38	<0.37	2000	2000
1,2,4-Trichlorobenzene	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	5.3	77
2,4,5-Trichlorophenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	250	690
2,4,6-Trichlorophenol	mg/kg	<0.35	<0.34	<0.34	<0.35	<0.35	<0.40	<0.34	<0.40	<0.34	<0.35	<0.35	<0.36	<0.76	<0.39	<0.38	<0.37	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)																			
TPH-Gasoline	mg/kg	<16	<15.3	<15.3	<16.1	<15.8	<18.1	<15.5	<18.3	<15.6	<16	<16	<16.3	<17.2	<17.6	<17	<16.9	25	330
TPH-Extended	mg/kg	181	<20	21	92	106	<24	26	<24	248	<21	111	<22	89	<24	<23	<22	80	1000
Metals (6010B)																			
Arsenic	mg/kg	<2	2.1	<2	<2	11.5	4.3	<2	5.4	<2	<2	<2	<2	<2	4.5	4.9	3	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.
IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-13	HAB-14	HAB-14	HAB-15	HAB-15	HAB-15	MW-7	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10		
Depth (feet)		18-20	0-0.5	10.10.5	0-0.5	0-0.5 Dup	12-12.5	0-0.5	15-16	30-31	0-0.5	12.5-13	0-0.5	0-0.5 Dup	10-11	25-26	0-0.5		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	21-Jul-08	21-Jul-08	22-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	24-Jul-08		
Parameter	**Units**																	**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)																			
Acetone	mg/kg	<0.109	<0.115	<0.122	<0.110	<0.109	<0.104	<0.103	5.72	< 0.125	<0.112	<0.103	<0.119	<0.111	<0.104	<0.114	<0.114	28	370
Acrolein	mg/kg	<0.109	<0.115	<0.122	<0.110	<0.109	<0.104	<0.103	<5.00	< 0.125	<0.112	<0.103	<0.119	<0.111	<0.104	<0.114	<0.114	0.00027	0.25
Acrylonitrile	mg/kg	<0.109	<0.115	<0.122	<0.110	<0.109	<0.104	<0.103	<5.00	< 0.125	<0.112	<0.103	<0.119	<0.111	<0.104	<0.114	<0.114	NS	NS
Benzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.034	0.35
Bromobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Bromochloromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Bromodichloromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.51	0.51
Bromoform	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.6	2.7
Bromomethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.052	0.7
n-Butanol	mg/kg	<0.054	<0.057	<0.061	<0.055	<0.054	<0.052	<0.052	<2.500	< 0.063	<0.056	<0.052	< 0.060	<0.056	<0.052	<0.057	<0.057	16	44
2-Butanone (MEK)	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.250	< 0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	35	250
n-Butylbenzene	mg/kg	0.104	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
sec-Butylbenzene	mg/kg	0.0154	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
tert-Butylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Carbon Disulfide	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	10	82
Carbon tetrachloride	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.066	0.29
Chlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	1.3	27
Chloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.054	<0.057	<0.061	<0.055	<0.054	<0.052	<0.052	<2.500	< 0.063	<0.056	<0.052	< 0.060	<0.056	<0.052	<0.057	<0.057	NS	NS
Chloroform	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.47	4.7
Chloromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
2-Chlorotoluene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
4-Chlorotoluene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Dibromochloromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2-Dibromoethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.00034	0.0096
Dibromomethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	17	220
1,3-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	2.2	3.4
trans-1,4-Dichloro-2-butene	mg/kg	<0.109	<0.115	<0.122	<0.110	<0.109	<0.104	<0.103	<5.00	< 0.125	<0.112	<0.103	<0.119	<0.111	<0.104	<0.114	<0.114	NS	NS
Dichlorodifluoromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,1-Dichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	5.6	58
1,2-Dichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.68	14
1,2-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.03	0.25
1,3-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
2,2-Dichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,1-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Ethylbenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	13	160
Ethyl methacrylate	mg/kg	<0.109	<0.115	<0.122	<0.110	<0.109	<0.104	<0.103	<5.00	< 0.125	<0.112	<0.103	<0.119	<0.111	<0.104	<0.114	<0.114	NS	NS
Hexachloro-1,3-butadiene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	24	66
n-Hexane	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	100	100
2-Hexanone	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	NS	NS
Iodomethane	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	NS	NS
Isopropylbenzene	mg/kg	0.00653	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	11	42
p-Isopropyltoluene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
Methylene Chloride	mg/kg	<0.022	<0.023	<0.024	<0.022	<0.022	<0.021	<0.021	<1.00	<0.025	<0.022	<0.021	<0.024	<0.022	<0.021	<0.023	<0.023	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.18	3.2
Naphthalene	mg/kg	0.335	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	63.4	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	0.0194	0.0194	0.7	170
n-Propylbenzene	mg/kg	0.0113	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	36	300
Styrene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	3.5	550
1,1,1,2-Tetrachloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.007	0.11
Tetrachloroethene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.058	0.64
Toluene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.03	0.3

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-13	HAB-14	HAB-14	HAB-15	HAB-15	HAB-15	MW-7	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10		
Depth (feet)		18-20	0-0.5	10.10.5	0-0.5	0-0.5 Dup	12-12.5	0-0.5	15-16	30-31	0-0.5	12.5-13	0-0.5	0-0.5 Dup	10-11	25-26	0-0.5		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	21-Jul-08	21-Jul-08	22-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	24-Jul-08		
Parameter	**Units**																	**Default Residental Closure Levels [(1)]**	**Default Industrial Closure Levels [(1)]**
Volatile Organic Compounds (8260B) Continued																			
Trichloroethene	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.005	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	NS	NS
1,2,4-Trimethylbenzene	mg/kg	0.217	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	0.406	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	2.5	170
1,3,5-Trimethylbenzene	mg/kg	0.126	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.250	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006	<0.006	0.61	68
Vinyl acetate	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	2.3	430
Vinyl chloride	mg/kg	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.100	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.013	0.027
Xylenes, Total	mg/kg	<0.011	<0.011	<0.012	<0.011	<0.011	<0.010	<0.010	<0.500	<0.013	<0.011	<0.010	<0.012	<0.011	<0.010	<0.011	<0.011	170	170
	mg/kg																		
Semi-Volatile Organic Compounds (8270C)																			
Acenaphthene	mg/kg	69.6	<0.38	<0.40	1.32	<0.72	<0.34	<0.34	57.8	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	130	1800
Acenaphthylene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	18	180
Aniline	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
Anthracene	mg/kg	33.7	<0.38	<0.40	5.71	1.74	<0.34	<0.34	20.3	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2000	2000
Benzo(a)anthracene	mg/kg	16.3	<0.38	<0.40	20.9	10.4	<0.34	<0.34	11.6	<0.41	<0.37	<0.34	0.49	<0.37	<0.34	<0.38	<0.38	5	15
Benzo(a)pyrene	mg/kg	7.61	<0.38	<0.40	20.9	12	<0.34	<0.34	6.27	<0.41	<0.37	<0.34	0.5	<0.37	<0.34	<0.38	<0.38	0.5	1.5
Benzo(b)fluoranthene	mg/kg	10.4	<0.38	<0.40	31.9	18.5	<0.34	<0.34	9.57	<0.41	<0.37	<0.34	0.75	<0.37	<0.34	<0.38	<0.38	5	15
Benzo(g,h,i)perylene	mg/kg	2.28	<0.38	<0.40	14.3	5.65	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
Benzo(k)fluoranthene	mg/kg	2.83	<0.38	<0.40	12.1	6.96	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	50	150
Benzoic Acid	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	590	1600
Benzyl Alcohol	mg/kg	<1.43	<0.76	<0.80	<1.45	<1.43	<0.69	<0.68	<7.33	<0.83	<0.74	<0.68	<0.79	<0.73	<0.69	<0.75	<0.75	48	140
4-Bromophenyl-phenylether	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
Butylbenzylphthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	310	310
Carbazole	mg/kg	<14.3	<0.76	<0.80	4.73	1.63	<0.69	<0.68	8.01	<0.83	<0.74	<0.68	<0.79	<0.73	<0.69	<0.75	<0.75	5.9	20
4-Chloro-3-methylphenol	mg/kg	<1.43	<0.76	<0.80	<1.45	<1.43	<0.69	<0.68	<7.33	<0.83	<0.74	<0.68	<0.79	<0.73	<0.69	<0.75	<0.75	NS	NS
4-Chloroaniline	mg/kg	<1.43	<0.76	<0.80	<1.45	<1.43	<0.69	<0.68	<7.33	<0.83	<0.74	<0.68	<0.79	<0.73	<0.69	<0.75	<0.75	NS	NS
bis(2-chloroethoxy)methane	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
bis(2-chloroethyl)ether	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.0007	0.012
bis(2-chloroisopropyl)ether	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.027	0.26
2-Chloronapthalene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	42	560
2-Chlorophenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.75	10
4-Chlorophenylphenyl ether	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
Chrysene	mg/kg	14.1	<0.38	<0.40	24.2	14.1	<0.34	0.38	11.9	<0.41	<0.37	0.38	0.51	<0.37	<0.34	<0.38	<0.38	500	1500
Dibenz(a,h)anthracene	mg/kg	0.79	<0.38	<0.40	1.65	1.63	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.5	1.5
Dibenzofuran	mg/kg	59.8	<0.38	<0.40	0.78	<0.72	<0.34	<0.34	38.9	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	4.9	65
1,2-Dichlorobenzene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	17	220
1,3-Dichlorobenzene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2.2	3.4
3,3-Dichlorobenzidine	mg/kg	<1.43	<0.76	<0.80	<1.45	<1.43	<0.69	<0.68	<7.33	<0.83	<0.74	<0.68	<0.79	<0.73	<0.69	<0.75	<0.75	0.062	0.21
2,4-Dichlorophenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	1.1	3
Diethylphthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	450	840
2,4-Dimethylphenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	9	25
Dimethylphthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	1100	1100
Di-n-butylphthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
4,6-Dinitro-2-methylphenol	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	NS	NS
2,4-Dinitrophenol	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	0.29	0.82
2,4-Dinitrotoluene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.0091	0.031
2,6-Dinitrotoluene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.0091	0.031
Di-n-octylphthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2000	2000
bis(2-ethylhexyl)phthalate	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	300	980
Fluoranthene	mg/kg	51.1	<0.38	<0.40	48.4	23.9	<0.34	<0.34	48.9	<0.41	<0.37	<0.34	1.19	<0.37	<0.34	<0.38	<0.38	2000	2000
Fluorene	mg/kg	77.2	<0.38	<0.40	1.98	<0.72	<0.34	<0.34	53.3	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	170	2000
Hexachloro-1,3-butadiene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	24	66
Hexachlorobenzene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2.2	3.9
Hexachlorocyclopentadiene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	400	720
Hexachloroethane	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	2.28	<0.38	<0.40	13.2	5.76	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	5	15
Isophorone	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	5.3	18
2-Methylnapthalene	mg/kg	15.2	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	34.4	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	3.1	42
2-Methylphenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
3&4-Methylphenol	mg/kg	<1.43	<0.76	<0.80	<0.73	<1.43	<0.69	<0.68	<7.33	<0.83	<0.37	<0.68	<0.79	<0.37	<0.69	<0.75	<0.75	NS	NS
Napthalene	mg/kg	1.63	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	88.9	<0.41	<0.37	<0.34	<0.39	<0.37	0.194	<0.38	<0.38	0.7	170
2-Nitroaniline	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	0.67	1.9
3-Nitroaniline	mg/kg	<1.74	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	NS	NS

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		HAB-13	HAB-14	HAB-14	HAB-15	HAB-15	HAB-15	MW-7	MW-7	MW-7	MW-8	MW-8	MW-9	MW-9	MW-9	MW-9	MW-10		
Depth (feet)		18-20	0-0.5	10.10.5	0-0.5	0-0.5 Dup	12-12.5	0-0.5	15-16	30-31	0-0.5	12.5-13	0-0.5	0-0.5 Dup	10-11	25-26	0-0.5		
Date		26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	26-Jun-08	21-Jul-08	21-Jul-08	22-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	23-Jul-08	24-Jul-08		
Parameter	**Units**																	**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Semi-Volatile Organic Compounds (8270C) Continued																			
4-Nitroaniline	mg/kg	<1.74	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	NS	NS
Nitrobenzene	mg/kg	<1.74	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.028	0.34
2-Nitrophenol	mg/kg	<1.74	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	NS	NS
4-Nitrophenol	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	NS	NS
n-Nitrosodi-n-propylamine	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.0006	0.002
N-Nitrosodiphenylamine	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	9.7	32
Pentachlorophenol	mg/kg	<3.48	<1.84	<1.95	<3.52	<3.48	<1.67	<1.65	<17.8	<2.00	<1.80	<1.65	<1.90	<1.78	<1.67	<1.82	<1.82	0.028	0.66
Phenanthrene	mg/kg	112	<0.34	<0.37	30.8	12	<0.31	0.37	113	<0.38	<0.34	0.37	0.63	<0.33	<0.31	<0.34	<0.34	13	170
Phenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	56	160
Pyrene	mg/kg	48.9	<0.38	<0.40	51.6	26.1	<0.34	0.40	51.1	<0.41	<0.37	0.40	0.98	<0.37	<0.34	<0.38	<0.38	2000	2000
1,2,4-Trichlorobenzene	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	5.3	77
2,4,5-Trichlorophenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	250	690
2,4,6-Trichlorophenol	mg/kg	<0.72	<0.38	<0.40	<0.73	<0.72	<0.34	<0.34	<3.67	<0.41	<0.37	<0.34	<0.39	<0.37	<0.34	<0.38	<0.38	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)																			
TPH-Gasoline	mg/kg	<16.3	<17.2	<18.3	<16.5	<16.3	<15.6	<20	<20	<20	<16.9	<15.5	<17.9	<16.7	<15.6	<17.0	<20	25	330
TPH-Extended	mg/kg	2347	<23	<24	454	324	<21	130	606	<25	<22	<21	<24	<22	<21	<23	200	80	1000
Metals (6010B)																			
Arsenic	mg/kg	<2	<2	3.7	3.9	<2	<2	<2	<2	<3	<2	<2	5.6	3.3	<2	5.5	3.9	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.
IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-10	MW-11	MW-11	MW-12	MW-12		
Depth (feet)		11.5-12.5	0-0.5	10-10.5	0-0.5	12-12.5		
Date		24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08		
Parameter	**Units**						**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)								
Acetone	mg/kg	<0.114	<0.105	<0.116	< 0.125	<0.115	28	370
Acrolein	mg/kg	<0.114	<0.105	<0.116	< 0.125	<0.115	0.00027	0.25
Acrylonitrile	mg/kg	<0.114	<0.105	<0.116	< 0.125	<0.115	NS	NS
Benzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.034	0.35
Bromobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Bromochloromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Bromodichloromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.51	0.51
Bromoform	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.6	2.7
Bromomethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.052	0.7
n-Butanol	mg/kg	<0.057	<0.053	<0.058	< 0.063	<0.057	16	44
2-Butanone (MEK)	mg/kg	<0.011	<0.011	<0.012	< 0.013	<0.011	35	250
n-Butylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
sec-Butylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
tert-Butylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Carbon Disulfide	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	10	82
Carbon tetrachloride	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.066	0.29
Chlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	1.3	27
Chloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.65	10
2-Chloroethyl vinyl ether	mg/kg	<0.057	<0.053	<0.058	< 0.063	<0.057	NS	NS
Chloroform	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.47	4.7
Chloromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
2-Chlorotoluene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
4-Chlorotoluene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2-Dibromo-3-Chloropropane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Dibromochloromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2-Dibromoethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.00034	0.0096
Dibromomethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2-Dichlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	17	220
1,3-Dichlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	2.2	3.4
trans-1,4-Dichloro-2-butene	mg/kg	<0.114	<0.105	<0.116	< 0.125	<0.115	NS	NS
Dichlorodifluoromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,1-Dichloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	5.6	58
1,2-Dichloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.024	0.15
1,1-Dichloroethene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.058	42
cis-1,2-Dichloroethene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.4	5.8
trans-1,2-Dichloroethene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.68	14
1,2-Dichloropropane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.03	0.25
1,3-Dichloropropane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
2,2-Dichloropropane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,1-Dichloropropene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
cis-1,3-Dichloropropene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
trans-1,3-Dichloropropene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Ethylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	13	160
Ethyl methacrylate	mg/kg	<0.114	<0.105	<0.116	< 0.125	<0.115	NS	NS
Hexachloro-1,3-butadiene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	24	66
n-Hexane	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	100	100
2-Hexanone	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	NS	NS
Iodomethane	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	NS	NS
Isopropylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	11	42
p-Isopropyltoluene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
Methylene Chloride	mg/kg	<0.023	<0.021	<0.023	<0.025	<0.023	0.023	1.8
4-Methyl-2-pentanone (MIBK)	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	20	75
Methyl tert-butyl ether	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.18	3.2
Naphthalene	mg/kg	0.0194	<0.005	<0.006	<0.006	<0.006	0.7	170
n-Propylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	36	300
Styrene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	3.5	550
1,1,1,2-Tetrachloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.053	0.85
1,1,2,2-Tetrachloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.007	0.11
Tetrachloroethene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.058	0.64
Toluene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	12	96
1,2,3-Trichlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2,4-Trichlorobenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	5.3	77
1,1,1-Trichloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	1.9	280
1,1,2-Trichloroethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.03	0.3

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-10	MW-11	MW-11	MW-12	MW-12		
Depth (feet)		11.5-12.5	0-0.5	10-10.5	0-0.5	12-12.5		
Date		24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08		
Parameter	**Units**						**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B) Continued								
Trichloroethene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.057	0.082
Trichlorofluoromethane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2,3-Trichloropropane	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	NS	NS
1,2,4-Trimethylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	2.5	170
1,3,5-Trimethylbenzene	mg/kg	<0.006	<0.005	<0.006	<0.006	<0.006	0.61	68
Vinyl acetate	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	2.3	430
Vinyl chloride	mg/kg	<0.002	<0.002	<0.002	<0.003	<0.002	0.013	0.027
Xylenes, Total	mg/kg	<0.011	<0.011	<0.012	<0.013	<0.011	170	170
	mg/kg							
Semi-Volatile Organic Compounds (8270C)								
Acenaphthene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	130	1800
Acenaphthylene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	18	180
Aniline	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
Anthracene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2000	2000
Benzo(a)anthracene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	5	15
Benzo(a)pyrene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.5	1.5
Benzo(b)fluoranthene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	5	15
Benzo(g,h,i)perylene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
Benzo(k)fluoranthene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	50	150
Benzoic Acid	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	590	1600
Benzyl Alcohol	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	48	140
4-Bromophenyl-phenylether	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
Butylbenzylphthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	310	310
Carbazole	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	5.9	20
4-Chloro-3-methylphenol	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	NS	NS
4-Chloroaniline	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	NS	NS
bis(2-chloroethoxy)methane	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
bis(2-chloroethyl)ether	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.0007	0.012
bis(2-chloroisopropyl)ether	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.027	0.26
2-Chloronapthalene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	42	560
2-Chlorophenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.75	10
4-Chlorophenylphenyl ether	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
Chrysene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	500	1500
Dibenz(a,h)anthracene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.5	1.5
Dibenzofuran	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	4.9	65
1,2-Dichlorobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	17	220
1,3-Dichlorobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2.3	8.9
1,4-Dichlorobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2.2	3.4
3,3-Dichlorobenzidine	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	0.062	0.21
2,4-Dichlorophenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	1.1	3
Diethylphthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	450	840
2,4-Dimethylphenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	9	25
Dimethylphthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	1100	1100
Di-n-butylphthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
4,6-Dinitro-2-methylphenol	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	NS	NS
2,4-Dinitrophenol	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	0.29	0.82
2,4-Dinitrotoluene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.0091	0.031
2,6-Dinitrotoluene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.0091	0.031
Di-n-octylphthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2000	2000
bis(2-ethylhexyl)phthalate	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	300	980
Fluoranthene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2000	2000
Fluorene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	170	2000
Hexachloro-1,3-butadiene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	24	66
Hexachlorobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2.2	3.9
Hexachlorocyclopentadiene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	400	720
Hexachloroethane	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2.8	7.7
Indeno(1,2,3-cd)pyrene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	5	15
Isophorone	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	5.3	18
2-Methylnapthalene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	3.1	42
2-Methylphenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
3&4-Methylphenol	mg/kg	<0.75	<0.69	<0.77	<0.83	<0.76	NS	NS
Napthalene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.7	170
2-Nitroaniline	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	0.67	1.9
3-Nitroaniline	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	NS	NS

Table 3 - Summary of Soil COC Analytical Dat
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Soil

Location		MW-10	MW-11	MW-11	MW-12	MW-12		
Depth (feet)		11.5-12.5	0-0.5	10-10.5	0-0.5	12-12.5		
Date		24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08	24-Jul-08		
Parameter	**Units**						**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Semi-Volatile Organic Compounds (8270C) Continued								
4-Nitroaniline	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	NS	NS
Nitrobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.028	0.34
2-Nitrophenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	NS	NS
4-Nitrophenol	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	NS	NS
n-Nitrosodi-n-propylamine	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.0006	0.002
N-Nitrosodiphenylamine	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	9.7	32
Pentachlorophenol	mg/kg	<1.82	<1.68	<1.86	<2.00	<1.84	0.028	0.66
Phenanthrene	mg/kg	<0.34	<0.32	<0.35	<0.38	<0.34	13	170
Phenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	56	160
Pyrene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	2000	2000
1,2,4-Trichlorobenzene	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	5.3	77
2,4,5-Trichlorophenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	250	690
2,4,6-Trichlorophenol	mg/kg	<0.38	<0.35	<0.38	<0.41	<0.38	0.07	0.2
Total Petroleum Hydrocarbons (3546/DRO)								
TPH-Gasoline	mg/kg	<20	<20	<20	<20	<20	25	330
TPH-Extended	mg/kg	<23	<21	<23	37	<23	80	1000
Metals (6010B)								
Arsenic	mg/kg	5.5	<2	4.3	<3	6.1	3.9	5.8

NS = No standard.
mg/kg = milligrams per kilogram.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure Tables - January 2006.
IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.

Table 4 - Depth to Water Measurements

Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Monitoring Well Number	Date	Depth to Water (feet)	Top of Pipe Elevation (feet)	Groundwater Elevation (feet)
MW-1	14-Oct-08	21.37	629.13	607.76
MW-2	14-Oct-08	21.95	626.15	604.20
MW-3	14-Oct-08	20.45	627.02	606.57
MW-4	14-Oct-08	21.91	626.70	604.79
MW-5	14-Oct-08	19.26	624.31	605.05
MW-6	14-Oct-08	20.76	625.46	604.70
MW-7D	14-Oct-08	19.01	622.90	603.89
MW-8	14-Oct-08	19.09	626.81	607.72
MW-9	14-Oct-08	12.42	620.48	608.06
MW-10	14-Oct-08	19.20	624.05	604.85
MW-11	14-Oct-08	17.61	621.18	603.57
MW-12	14-Oct-08	19.81	623.89	604.08

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbia Wood Preserving Site
705 2nd Street
Columbus, Indiana

Groundwater

Location		MW-1	MW-2	MW-3	MW-4	MW-4 Duplicate	MW-5	MW-6	EB 1	TRIP BLANK 3	TRIP BLANK 4	TRIP BLANK 5	TRIP BLANK 6	TRIP BLANK 7		
Date		12-May-07	12-May-07	12-May-07	13-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	13-May-07		
Parameter	**Units**														**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)																
Acetone	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	6900	92000
Acrolein	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	0.055	51
Acrylonitrile	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Benzene	ug/l	< 1	87	< 1	0.49	0.46	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	52
Bromobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Bromodichloromethane	ug/l	3.3	< 1	2.2	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	80	80
Bromoform	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	80	360
Bromomethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	11	140
n-Butylbenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
sec-Butylbenzene	ug/l	< 1	< 1	< 1	0.96	0.9	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
tert-Butylbenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Carbon tetrachloride	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	22
Chlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	100	2000
Chlorodibromomethane	ug/l	< 1	< 1	0.41	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Chloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	62	990
2-Chloroethyl vinyl ether	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS
Chloroform	ug/l	9.8	< 5	9.3	< 5	< 5	< 5	< 5	21	< 5	< 5	< 5	< 5	< 5	80	1000
Chloromethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
2-Chlorotoluene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
4-Chlorotoluene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,2-Dibromo-3-Chloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2-Dibromoethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.05	1.4
Dibromomethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,2-Dichlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	600	9200
1,3-Dichlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	80	310
1,4-Dichlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	75	120
Dichlorodifluoromethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,1-Dichloroethane	ug/l	< 1	0.71	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	990	10000
1,2-Dichloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	31
1,1-Dichloroethene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	7	5100
cis-1,2-Dichloroethene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	70	1000
trans-1,2-Dichloroethene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	100	2000
1,2-Dichloropropane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	42
1,1-Dichloropropene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,3-Dichloropropane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
cis-1,3-Dichloropropene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
trans-1,3-Dichloropropene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
2,2-Dichloropropane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Di-isopropyl ether	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Ethylbenzene	ug/l	< 1	51	< 1	1.5	1.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	700	10000
Hexachlorobutadiene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	11	0.031
Isopropylbenzene	ug/l	< 1	2.8	< 1	1.5	1.5	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	830	10000
p-Isopropyltoluene	ug/l	< 1	1.1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
2-Butanone (MEK)	ug/l	< 10	3.5	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8400	61000
Methylene Chloride	ug/l	< 5	< 5	1.4	< 5	< 5	1.3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	380
4-Methyl-2-pentanone (MIBK)	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2200	8200
Methyl tert-butyl ether	ug/l	< 1	< 1	0.38	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	40	720
Naphthalene	ug/l	< 5	13000	18	160	120	4.6	570	0.96	< 5	< 5	< 5	< 5	< 5	8.3	2000
n-Propylbenzene	ug/l	< 1	1.9	< 1	0.59	0.6	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	310	4100
Styrene	ug/l	< 1	40	< 1	< 1	< 1	< 1	0.42	< 1	< 1	< 1	< 1	< 1	< 1	100	20
1,1,1,2-Tetrachloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	6.9	110
1,1,2,2-Tetrachloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	0.9	14
1,1,2-Trichloro-1,2,2-trifluoroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
Tetrachloroethene	ug/l	< 1	< 1	0.71	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	55
Toluene	ug/l	< 5	100	< 5	0.62	0.7	< 5	0.88	< 5	< 5	< 5	< 5	< 5	< 5	1000	8200
1,2,3-Trichlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,2,4-Trichlorobenzene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	70	1000
1,1,1-Trichloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	200	29000
1,1,2-Trichloroethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	50

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbia Wood Preserving Site
705 2nd Street
Columbus, Indiana

Groundwater

Location		MW-1	MW-2	MW-3	MW-4	MW-4 Duplicate	MW-5	MW-6	EB 1	TRIP BLANK 3	TRIP BLANK 4	TRIP BLANK 5	TRIP BLANK 6	TRIP BLANK 7		
Date		12-May-07	12-May-07	12-May-07	13-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	13-May-07		
Parameter	**Units**														**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)																
Trichloroethene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	5	31
Trichlorofluoromethane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,2,3-Trichloropropane	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,2,4-Trimethylbenzene	ug/l	< 1	70	0.35	3	2.9	< 1	3	< 1	< 1	< 1	< 1	< 1	< 1	16	5100
1,2,3-Trimethylbenzene	ug/l	< 1	27	< 1	3.8	4	< 1	1.9	< 1	< 1	< 1	< 1	< 1	< 1	NS	NS
1,3,5-Trimethylbenzene	ug/l	< 1	28	< 1	1.1	0.98	< 1	1.3	< 1	< 1	< 1	< 1	< 1	< 1	16	5100
Vinyl chloride	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	2	4
Xylenes, Total	ug/l	< 3	150	< 3	5	5.4	< 3	4.7	< 3	< 3	< 3	< 3	< 3	< 3	10000	20000
Semi-Volatile Organic Compounds (8270C)																
Acenaphthene	ug/l	< 10	< 100	< 10	110	120	< 10	530	< 10	NA	NA	NA	NA	NA	460	6100
Acenaphthylene	ug/l	< 10	20	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	71	730
Anthracene	ug/l	< 10	15	< 10	16	16	< 10	13	< 10	NA	NA	NA	NA	NA	2300	31000
Benzidine	ug/l	< 50	< 500	< 50	1	0.96	< 50	< 50	< 50	NA	NA	NA	NA	NA	NS	NS
Benzo(a)anthracene	ug/l	< 10	< 100	< 10	1	1.5	< 10	2.8	< 10	NA	NA	NA	NA	NA	1.2	3.9
Benzo(b)fluoranthene	ug/l	< 10	< 100	< 10	< 10	0.93	< 10	1.9	< 10	NA	NA	NA	NA	NA	1.2	3.9
Benzo(k)fluoranthene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	12	39
Benzo(g,h,i)perylene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Benzo(a)pyrene	ug/l	< 10	< 100	< 10	< 10	0.82	< 10	1.2	< 10	NA	NA	NA	NA	NA	0.2	0.39
Bis(2-chlorethoxy)methane	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Bis(2-chloroethyl)ether	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	0.15	2.6
Bis(2-chloroisopropyl)ether	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	4.2	41
4-Bromophenyl-phenylether	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Benzylbutyl phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	2700	2700
4-Chloro-3-methylphenol	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
2-Chloronaphthalene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	610	8200
2-Chlorophenol	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	38	510
4-Chlorophenyl-phenylether	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Chrysene	ug/l	< 10	< 100	< 10	< 10	1.2	< 10	2.6	< 10	NA	NA	NA	NA	NA	120	390
Dibenz(a,h)anthracene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	0.012	0.39
3,3-Dichlorobenzidine	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	2.2	< 10	NA	NA	NA	NA	NA	1.9	6.4
2,4-Dichlorophenol	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	110	310
2,4-Dinitrotoluene	ug/l	< 10	< 100	< 10	< 10	3.1	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Di-n-butyl phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Diethyl phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	29000	82000
2,4-Dimethylphenol	ug/l	< 10	900	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	730	2000
Dimethyl phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	360000	1000000
4,6-Dinitro-2-methylphenol	ug/l	< 10	< 100	< 10	< 10	7.4	< 10	8	< 10	NA	NA	NA	NA	NA	NS	NS
2,4-Dinitrophenol	ug/l	< 10	< 100	1.7	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	73	2000
2,6-Dinitrotoluene	ug/l	< 10	< 100	< 10	< 10	1.7	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
Di-n-octyl phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	20	20
Bis(2-ethylhexyl)phthalate	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	6	200
Fluoranthene	ug/l	< 10	< 100	< 10	20	20	< 10	26	< 10	NA	NA	NA	NA	NA	1500	4100
Fluorene	ug/l	< 10	150	< 10	110	100	< 10	240	< 10	NA	NA	NA	NA	NA	310	4100
Hexachlorobenzene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	1	1.8
Hexachloro-1,3-butadiene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	11	31
Hexachlorocyclopentadiene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	50	610
Hexachloroethane	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	36	100
Indeno(1,2,3-cd)pyrene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	1.2	3.9
Isophorone	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	900	3000
Naphthalene	ug/l	< 10	8900	< 10	74	71	< 10	330	< 10	NA	NA	NA	NA	NA	8.6	2000
Nitrobenzene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	4.3	51
2-Nitrophenol	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbia Wood Preserving Site
705 2nd Street
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Groundwater

Location		MW-1	MW-2	MW-3	MW-4	MW-4 Duplicate	MW-5	MW-6	EB 1	TRIP BLANK 3	TRIP BLANK 4	TRIP BLANK 5	TRIP BLANK 6	TRIP BLANK 7		
Date		12-May-07	12-May-07	12-May-07	13-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	12-May-07	13-May-07	13-May-07	13-May-07		
Parameter	**Units**														**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Semi-Volatile Organic Compounds (8270C)																
4-Nitrophenol	ug/l	< 10	< 100	< 10	< 10	1	< 10	< 10	< 10	NA	NA	NA	NA	NA	NS	NS
n-Nitrosodimethylamine	ug/l	< 50	< 500	< 50	< 50	< 50	< 50	< 50	< 50	NA	NA	NA	NA	NA	NS	NS
n-Nitrosodiphenylamine	ug/l	< 10	< 100	< 10	< 10	7.1	< 10	8.9	< 10	NA	NA	NA	NA	NA	170	580
n-Nitrosodi-n-propylamine	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	0.12	0.41
Pentachlorophenol	ug/l	< 1	17000	0.74	64	41	< 1	120	8.7	NA	NA	NA	NA	NA	1	24
Phenanthrene	ug/l	< 10	110	< 10	96	89	< 10	27	< 10	NA	NA	NA	NA	NA	23	0.31
Phenol	ug/l	< 10	120	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	11000	31000
Pyrene	ug/l	< 10	< 100	< 10	9.9	10	< 10	14	< 10	NA	NA	NA	NA	NA	1100	3100
1,2,4-Trichlorobenzene	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	70	1000
2,4,6-Trichlorophenol	ug/l	< 10	< 100	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA	NA	NA	NA	3.6	10
Metals (6010B)																
Arsenic	ug/l	15	27	13	45	43	17	22	< 20	NA	NA	NA	NA	NA	10	10

NS = No standard.
NA = Not analyzed.
ug/l = micrograms per liter.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure
IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Closure Default Levels.

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Groundwater

Location		MW-7 D	MW-8	MW-9	MW-10	MW-11	MW-11 Duplicate	MW-12		
Date		20-Aug-08	20-Aug-08	21-Aug-08	21-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08		
Parameter	**Units**								**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B)										
Acetone	ug/l	< 100	< 100	< 100	< 100	< 100	< 100	< 100	6900	92000
Acrolein	ug/l	< 100	< 100	< 100	< 100	< 100	< 100	< 100	0.055	51
Acrylonitrile	ug/l	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS	NS
Benzene	ug/l	< 5	< 5	< 5	< 5	6	6.28	< 5	5	52
Bromobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Bromochloromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Bromodichloromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	80	80
Bromoform	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	80	360
Bromomethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	11	140
n-Butanol	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	3600	10000
2-Butanone (MEK)	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	8400	61000
n-Butylbenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
sec-Butylbenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
tert-Butylbenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Carbon Disulfide	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1300	10000
Carbon tetrachloride	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	22
Chlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	100	2000
Chloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	62	990
2-Chloroethyl vinyl ether	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS
Chloroform	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	80	1000
Chloromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
2-Chlorotoluene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
4-Chlorotoluene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2-Dibromo-3-Chloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Dibromochloromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2-Dibromoethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0.05	1.4
Dibromomethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2-Dichlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	600	9200
1,3-Dichlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	80	310
1,4-Dichlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	75	120
trans-1,4-Dichloro-2-butene	ug/l	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS	NS
Dichlorodifluoromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,1-Dichloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	990	10000
1,2-Dichloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	31
1,1-Dichloroethene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	7	5100
cis-1,2-Dichloroethene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	70	1000
trans-1,2-Dichloroethene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	100	2000
1,2-Dichloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	42
1,3-Dichloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
2,2-Dichloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,1-Dichloropropene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
cis-1,3-Dichloropropene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
trans-1,3-Dichloropropene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Ethylbenzene	ug/l	< 5	< 5	10.8	< 5	6.05	6.93	< 5	700	10000
Ethyl methacrylate	ug/l	< 100	< 100	< 100	< 100	< 100	< 100	< 100	NS	NS
Hexachloro-1,3-butadiene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	11	31
n-Hexane	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	540	9500
2-Hexanone	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Iodomethane	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Isopropylbenzene	ug/l	7.01	< 5	< 5	< 5	< 5	< 5	< 5	830	10000
p-Isopropyltoluene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
Methylene Chloride	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	380
4-Methyl-2-pentanone (MIBK)	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2200	8200
Methyl tert-butyl ether	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	40	720
Naphthalene	ug/l	3990	< 5	5150	< 5	24.2	16.1	57.2	8.3	2000
n-Propylbenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	31	4100
Styrene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	100	20000
1,1,1,2-Tetrachloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6.9	110
1,1,2,2-Tetrachloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0.9	14
Tetrachloroethene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	55
Toluene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1000	8200
1,2,3-Trichlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2,4-Trichlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	70	1000
1,1,1-Trichloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	200	29000
1,1,2-Trichloroethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	5	50

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Groundwater

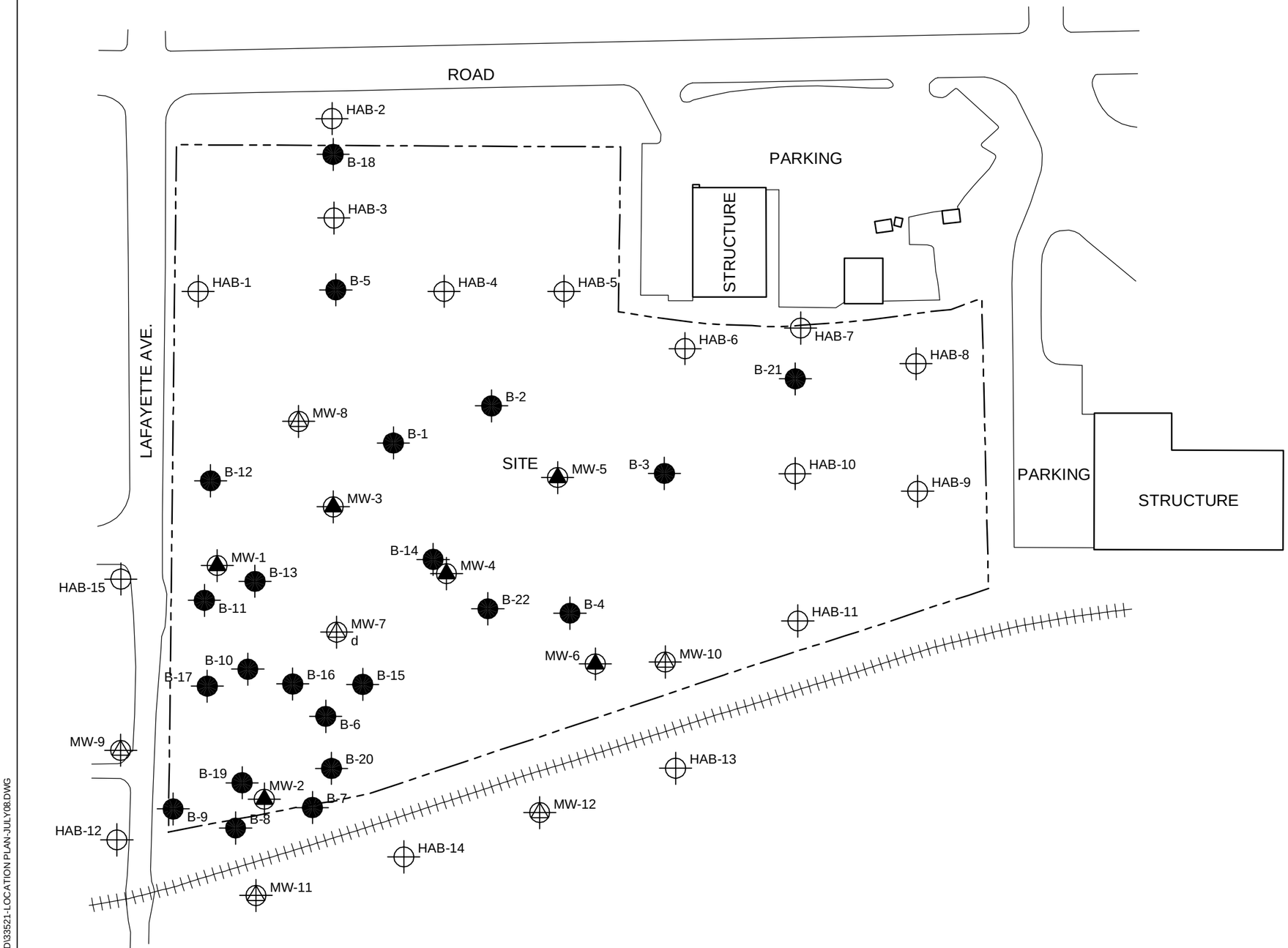
Location		MW-7 D	MW-8	MW-9	MW-10	MW-11	MW-11 Duplicate	MW-12		
Date		20-Aug-08	20-Aug-08	21-Aug-08	21-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08		
Parameter	**Units**								**Default Residental Closure Levels [1]**	**Default Industrial Closure Levels [1]**
Volatile Organic Compounds (8260B) Continued										
Trichloroethene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	0.031	0.031
Trichlorofluoromethane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2,3-Trichloropropane	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	NS	NS
1,2,4-Trimethylbenzene	ug/l	60.2	< 5	46.5	< 5	< 5	< 5	< 5	16	5100
1,3,5-Trimethylbenzene	ug/l	21.9	< 5	15.3	< 5	< 5	< 5	< 5	16	5100
Vinyl acetate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	55	100000
Vinyl chloride	ug/l	< 2	< 2	< 2	< 2	< 2	< 2	< 2	2	4
Xylenes, Total	ug/l	23.7	< 10	46.9	< 10	< 10	< 10	< 10	10000	20000
	ug/l									
Semi-Volatile Organic Compounds (8270C)										
Acenaphthene	ug/l	166	<1	132	68	53	59	5.2	460	6100
Acenaphthylene	ug/l	< 1	< 1	< 1	< 1	< 1	< 1	< 1	71	730
Aniline	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Anthracene	ug/l	11	< 0.10	6.9	5.5	0.33	0.31	< 0.10	2300	31000
Benzo(a)anthracene	ug/l	< 0.10	< 0.10	1.3	8	< 0.10	< 0.10	< 0.10	1.2	3.9
Benzo(a)pyrene	ug/l	< 0.10	< 0.10	< 0.10	2	< 0.10	< 0.10	< 0.10	0.2	0.39
Benzo(b)fluoranthene	ug/l	< 0.10	< 0.10	< 0.10	4.4	< 0.10	< 0.10	< 0.10	1.2	3.9
Benzo(g,h,i)perylene	ug/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	NS	NS
Benzo(k)fluoranthene	ug/l	< 0.10	< 0.10	< 0.10	1.3	< 0.10	< 0.10	< 0.10	0.8	39
Benzoic Acid	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	150000	410000
Benzyl Alcohol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11000	31000
4-Bromophenyl-phenylether	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Butylbenzylphthalate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	2700	2700
Carbazole	ug/l	51	< 20	< 20	< 20	22	21	< 20	43	140
4-Chloro-3-methylphenol	ug/l	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	NS
4-Chloroaniline	ug/l	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	NS
bis(2-chloroethoxy)methane	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
bis(2-chloroethyl)ether	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	0.15	2.6
bis(2-chloroisopropyl)ether	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	4.2	41
2-Chloronapthalene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	610	8200
2-Chlorophenol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	38	510
4-Chlorophenylphenyl ether	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Chrysene	ug/l	< 0.10	< 0.10	< 0.10	5.2	< 0.10	< 0.10	< 0.10	120	390
Dibenz(a,h)anthracene	ug/l	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.12	0.39
Dibenzofuran	ug/l	157	< 10	154	103	33	31	< 10	15	200
1,2-Dichlorobenzene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	600	9200
1,3-Dichlorobenzene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	80	310
1,4-Dichlorobenzene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	75	120
3,3-Dichlorobenzidine	ug/l	< 20	< 20	< 20	< 20	< 20	< 20	< 20	1.9	6.4
2,4-Dichlorophenol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	110	310
Diethylphthalate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	29000	82000
2,4-Dimethylphenol	ug/l	< 10	< 10	< 10	< 10	12	11	< 10	73	2000
Dimethylphthalate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	360000	1000000
Di-n-butylphthalate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
4,6-Dinitro-2-methylphenol	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS
2,4-Dinitrophenol	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	73	2000
2,4-Dinitrotoluene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
2,6-Dinitrotoluene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NS	NS
Di-n-octylphthalate	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	20	20
bis(2-ethylhexyl)phthalate	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	6	200
Fluoranthene	ug/l	< 1	< 1	15	35	< 1	< 1	< 1	1500	4100
Fluorene	ug/l	101	< 1	84	61	11	12	< 1	310	4100
Hexachloro-1,3-butadiene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11	31
Hexachlorobenzene	ug/l	< 5	< 5	< 5	< 5	< 5	< 5	< 5	1	1.8
Hexachlorocyclopentadiene	ug/l	< 25	< 25	< 25	< 25	< 25	< 25	< 25	50	610
Hexachloroethane	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	36	100
Indeno(1,2,3-cd)pyrene	ug/l	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	< 0.022	1.2	3.9
Isophorone	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	900	3000
2-Methylnapthalene	ug/l	292	< 1	29	< 1	< 1	< 1	< 1	31	410
2-Methylphenol	ug/l	<10	<10	<10	<10	<10	<10	<10	1800	5100
3&4-Methylphenol	ug/l	< 20	< 20	< 20	< 20	< 20	< 20	< 20	NS	NS
Napthalene	ug/l	481	< 1	< 1	< 1	4.9	4.5	< 1	8.3	2000
2-Nitroaniline	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	110	310
3-Nitroaniline	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS

Table 5 - Summary of Groundwater COC Analytical Data
Former Columbus Wood Preserving Site
705 2nd Street
Columbus, Indiana

Groundwater

Location		MW-7 D	MW-8	MW-9	MW-10	MW-11	MW-11 Duplicate	MW-12		
Date		20-Aug-08	20-Aug-08	21-Aug-08	21-Aug-08	20-Aug-08	20-Aug-08	20-Aug-08		
Parameter	**Units**								**Default Residental Closure Levels (1)**	**Default Industrial Closure Levels (1)**
Semi-Volatile Organic Compounds (8270C) Continued										
4-Nitroaniline	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS
Nitrobenzene	ug/l	<10	<10	<10	<10	<10	<10	<10	4.3	51
2-Nitrophenol	ug/l	<10	<10	<10	<10	<10	<10	<10	NS	NS
4-Nitrophenol	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	NS	NS
n-Nitrosodi-n-propylamine	ug/l	<10	<10	<10	<10	<10	<10	<10	0.12	0.41
N-Nitrosodiphenylamine	ug/l	<10	<10	<10	<10	<10	<10	<10	170	580
Pentachlorophenol	ug/l	< 50	< 50	< 50	< 50	< 50	< 50	< 50	1	24
Phenanthrene	ug/l	85	< 1	79	33	14	17	< 1	23	31
Phenol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	11000	31000
Pyrene	ug/l	< 1	< 1	< 1	24	< 1	< 1	< 1	1100	3100
1,2,4-Trichlorobenzene	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	70	1000
2,4,5-Trichlorophenol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	3600	10000
2,4,6-Trichlorophenol	ug/l	< 10	< 10	< 10	< 10	< 10	< 10	< 10	3.6	10
		< 10	< 10	< 10	< 10	< 10	< 10	< 10		
Total Petroleum Hydrocarbons (3546/DRO)										
TPH-Gasoline	ug/l	< 220	< 220	< 220	< 220	< 220	< 220	< 220	220	3000
TPH-Extended	ug/l	5950	< 100	4860	3820	2850	2740	9340	100	1100
Metals (6010B)										
Arsenic	ug/l	< 10	< 10	< 10	< 10	30	30	< 30	10	10

NS = No standard.
ug/l = micrograms per liter.
1 - Indiana Department of Environmental Management (IDEM), Risk Integrated System for Closure (RISC), Appendix A, Default Closure IDEM RISC Guidance Chapter 8 - June 2006.
IDEM RISC PAH Closure Level Changes - August 2006.
- Constituent detected above Residential Default Closure Level.
- Constituent detected above Residential and Industrial Default Closure Levels.



LEGEND:

- PROPERTY LINE
- RAILROAD
- HISTORICAL BORING
- SOIL BORING
- MONITORING WELL
- SHALLOW MONITORING WELL
- DEEPER MONITORING WELL (d)

NOTE:
ALL LOCATIONS APPROXIMATE.

N
W E
S

HALEY & ALDRICH

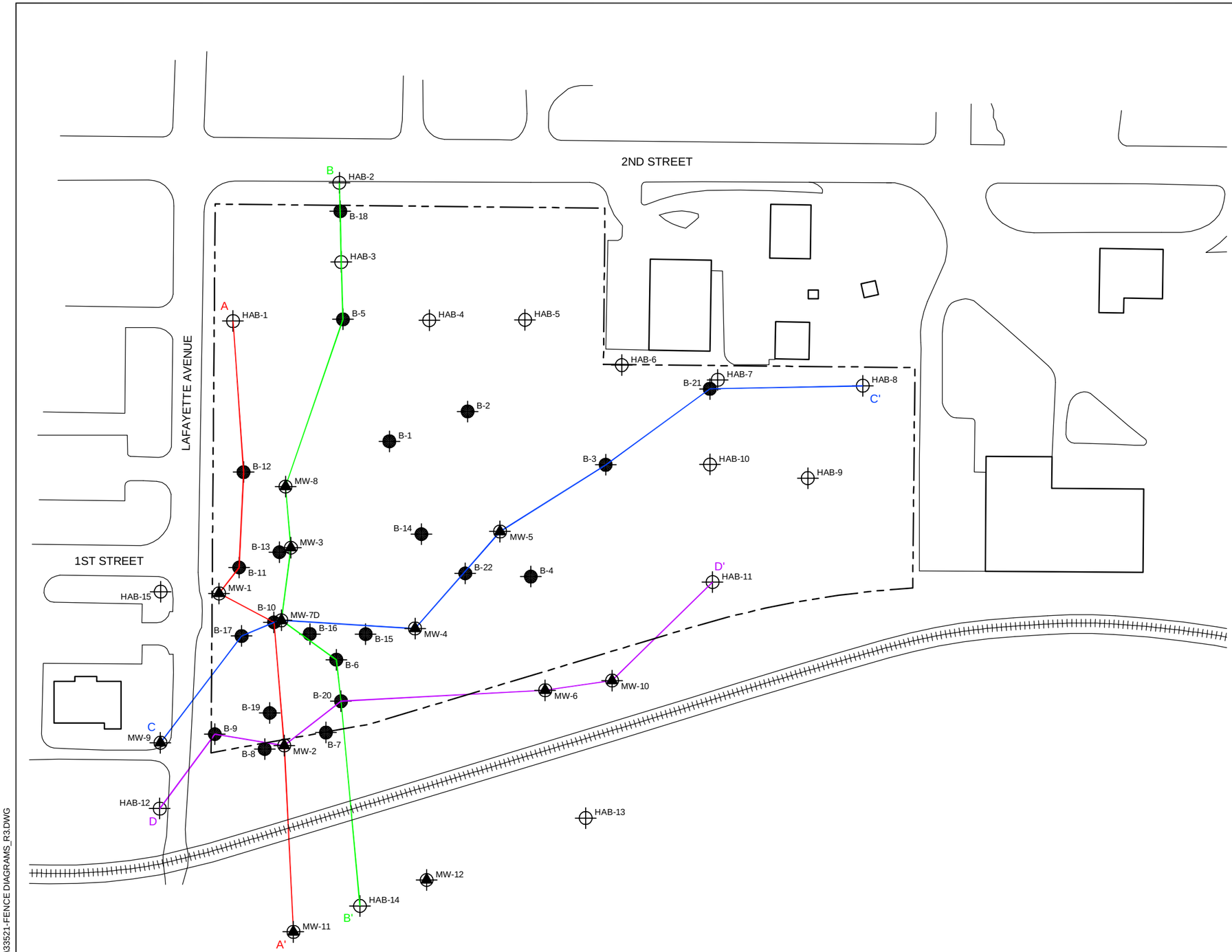
FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

SITE PLAN

SCALE: NOT TO SCALE
JULY 2008

FIGURE 2

G:\33521 - ISM\ACAD\33521-LOCATION PLAN-JULY08.DWG



LEGEND:

- PROPERTY LINE
- RAILROAD
- A——A' FENCE DIAGRAM CUT LINE
- HISTORICAL BORING LOCATION
- MONITORING WELL LOCATION

NOTE:
ALL LOCATIONS APPROXIMATE.

N
W E
S

0 100 200
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

CROSS-SECTION BASE PLAN

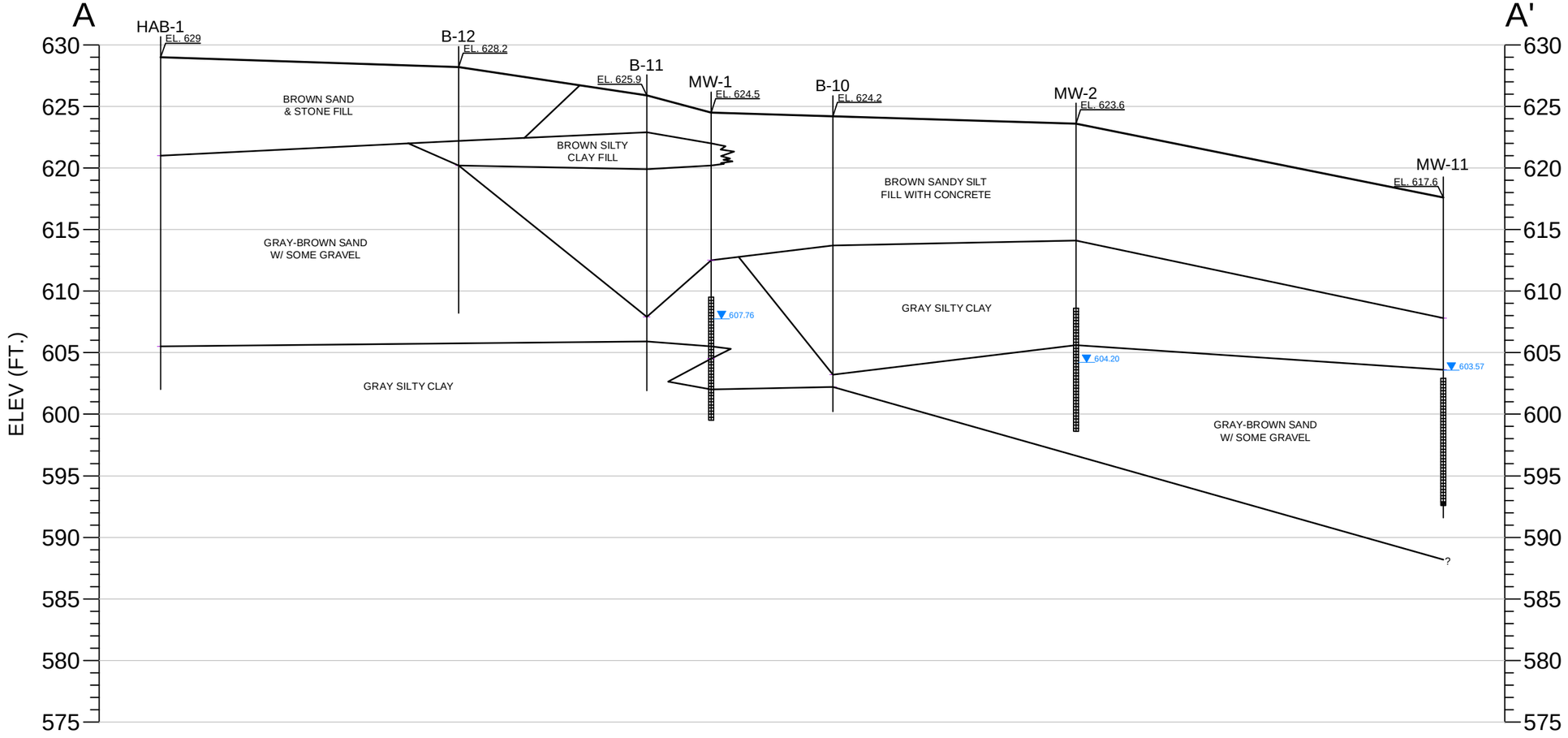
SCALE: AS SHOWN
OCTOBER 2008

FIGURE 3

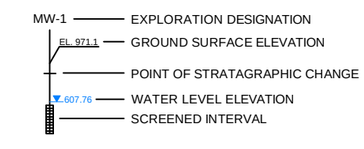
G:\33521 - ISM\ACAD\33521-FENCE DIAGRAMS_R3.DWG

NORTH
A

SOUTH
A'



EXPLORATION LEGEND



NOTE:
WATER TABLE ELEVATION DATA WAS COLLECTED ON 14 OCTOBER 2008.

HORIZ. 0 60 120
VERT. 0 10 20
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

CROSS-SECTION A-A'

SCALE: AS SHOWN
OCTOBER 2008

FIGURE 4

G:\33521 - ISM\ACAD\33521-FENCE DIAGRAMS_R3.DWG

NORTH

B

SOUTH

B'

ELEV (FT.)

630
625
620
615
610
605
600
595
590
585
580
575
570
565

HAB-2 EL. 627.5
B-18 EL. 627.5
HAB-3 EL. 627.2
B-5 EL. 625
MW-8 EL. 627.3
MW-3 EL. 624.2
MW-7D EL. 623.3
B-6 EL. 624.7
B-20 EL. 624
HAB-14 EL. 618

BROWN SANDY SILT

BROWN SAND W/ SOME GRAVEL

BROWN SANDY SILT W/ BLACK FOUNDARY SAND FILL

BROWN-GRAY CLAY W/ SOME SAND

607.72
606.57
603.89

GRAY-BROWN SILTY CLAY

?

YELLOW BROWN SAND W/ CLAY & GRAVEL

GRAY-BROWN GAVEL W/ SAND

GRAY-BROWN CLAY

EXPLORATION LEGEND

MW-1 — EXPLORATION DESIGNATION

EL. 971.1 — GROUND SURFACE ELEVATION

POINT OF STRATAGRAPHIC CHANGE

▼607.76 — WATER LEVEL ELEVATION

SCREENED INTERVAL

NOTE:
WATER TABLE ELEVATION DATA WAS COLLECTED ON 14 OCTOBER 2008.

HORIZ. 0 60 120
VERT. 0 10 20
APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

CROSS-SECTION B-B'

SCALE: AS SHOWN
OCTOBER 2008

FIGURE 5

G:\33521 - ISM\ACAD\33521-FENCE DIAGRAMS_R3.DWG

WEST

C

EAST

C'

ELEV (FT.)

630
625
620
615
610
605
600
595
590
585
580
575
570
565

MW-9
EL. 621

B-17
EL. 623.8

B-10
EL. 624.2

MW-7D
EL. 623.3

MW-4
EL. 623.5

MW-5
EL. 620.7

B-3
EL. 621.5

B-21
EL. 621.4

HAB-8
EL. 622.5

BROWN-SANDY GRAVEL
& SILT FILL W/ SLAG

BROWN SAND W/
SOME GRAVEL

CLAY

608.06

603.89

?

GRAY SILTY CLAY
W/ SOME GRAVEL

?

?

BROWN-SANDY GRAVEL
& SILT FILL W/ SLAG

BROWN SAND W/
SOME GRAVEL

BROWN-GRAY CLAY
W/ SOME GRAVEL

604.79

605.05

BROWN-SANDY GRAVEL
& SILT FILL W/ SLAG

BROWN-GRAY CLAY
W/ SOME GRAVEL

YELLOW-BROWN SAND
W/ CLAY & GRAVEL

?

?

GRAY-BROWN
GRAVEL W/ SAND

?

?

GRAY-BROWN CLAY

EXPLORATION LEGEND

MW-1 — EXPLORATION DESIGNATION

EL. 971.1 — GROUND SURFACE ELEVATION

POINT OF STRATAGRAPHIC CHANGE

607.76 — WATER LEVEL ELEVATION

SCREENED INTERVAL

NOTE:
WATER TABLE ELEVATION DATA WAS COLLECTED ON 14 OCTOBER 2008.

HORIZ. 0 60 120

VERT. 0 10 20

APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

CROSS-SECTION C-C'

SCALE: AS SHOWN
OCTOBER 2008

FIGURE 6

G:\33521 - ISM\ACAD\33521-FENCE DIAGRAMS_R3.DWG

WEST

D

EAST

D'

ELEV (FT.)

630
625
620
615
610
605
600
595
590
585
580
575

HAB-12
EL. 621

B-9
EL. 621

MW-2
EL. 623.6

B-20
EL. 624

MW-6
EL. 622

MW-10
EL. 620.4

HAB-11
EL. 620.5

BROWN SANDY SILT FILL
W/ GRAVEL & SLAG

BROWN SANDY SILT FILL
W/ GRAVEL & SLAG

BROWN SANDY SILT FILL
W/ GRAVEL & SLAG

BROWN SAND W/
SOME GRAVEL

GRAY SILTY CLAY
W/ SOME GRAVEL

GRAY SILTY CLAY
W/ SOME GRAVEL

GRAY
SAND

GRAY SILTY CLAY
W/ SOME GRAVEL

GRAY-BROWN
SAND W/ GRAVEL

GRAY-BROWN
SAND W/ GRAVEL

GRAY-BLACK
GRAVEL W/ SAND

▼604.20

▼604.70

▼604.85

EXPLORATION LEGEND

MW-1 — EXPLORATION DESIGNATION

EL. 971.1 — GROUND SURFACE ELEVATION

— POINT OF STRATAGRAPHIC CHANGE

▼607.76 — WATER LEVEL ELEVATION

— SCREENED INTERVAL

NOTE:
WATER TABLE ELEVATION DATA WAS COLLECTED ON 14 OCTOBER 2008.

HORIZ. 0 60 120

VERT. 0 10 20

APPROXIMATE SCALE IN FEET

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

CROSS-SECTION D-D'

SCALE: AS SHOWN
OCTOBER 2008

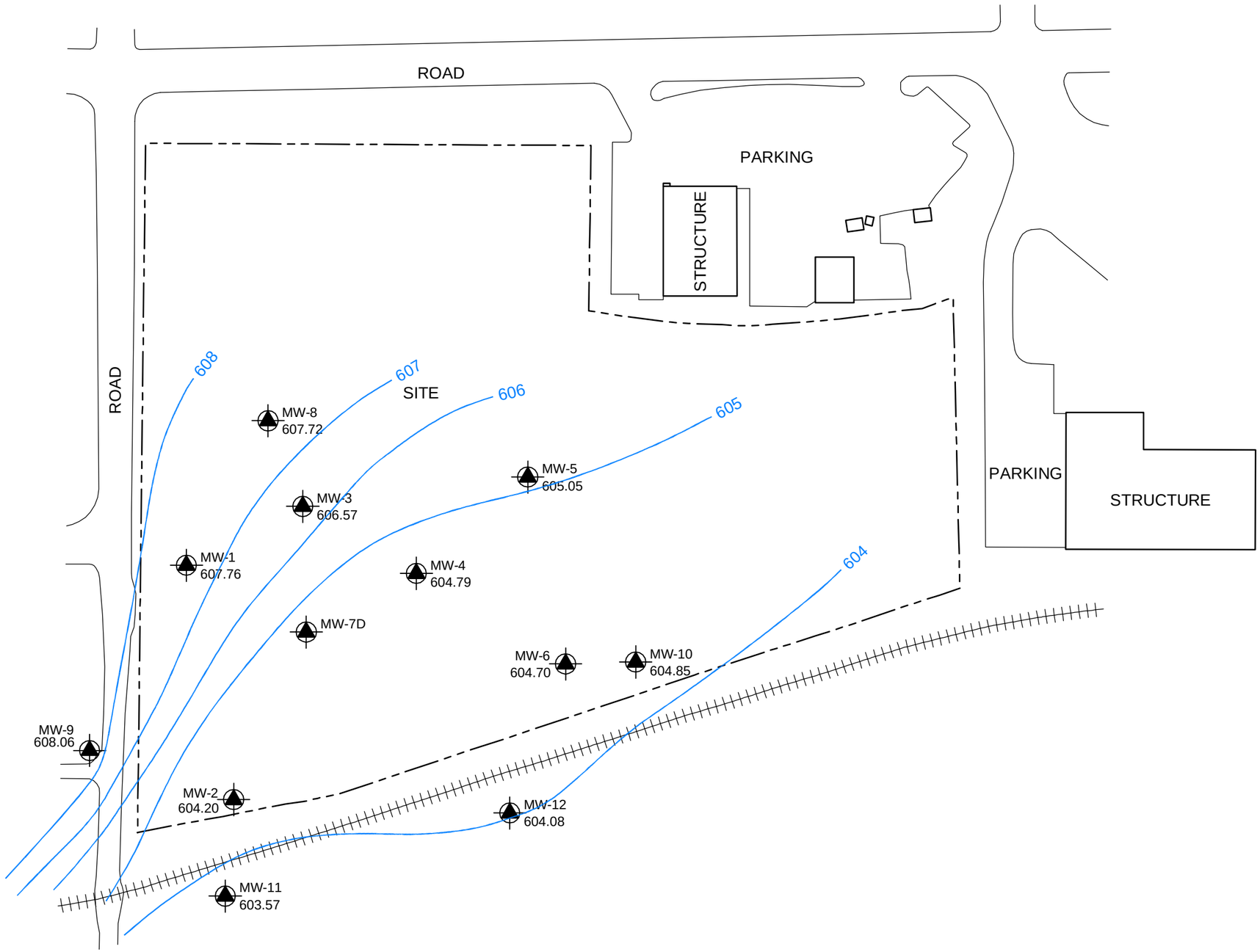
FIGURE 7

G:\33521 - ISM\ACAD\33521-FENCE DIAGRAMS_R3.DWG

LEGEND:

- PROPERTY LINE
- RAILROAD
- GROUND WATER CONTOUR (1 FOOT CONTOUR INTERVAL)
- MONITORING WELL LOCATION

NOTES:
1. ALL LOCATIONS APPROXIMATE.
2. MW-7D WAS NOT UTILIZED IN CONTOURING BECAUSE THE WELL IS SCREENED IN A DIFFERENT WATER BEARING UNIT.



N
W
E
S

HALEY & ALDRICH

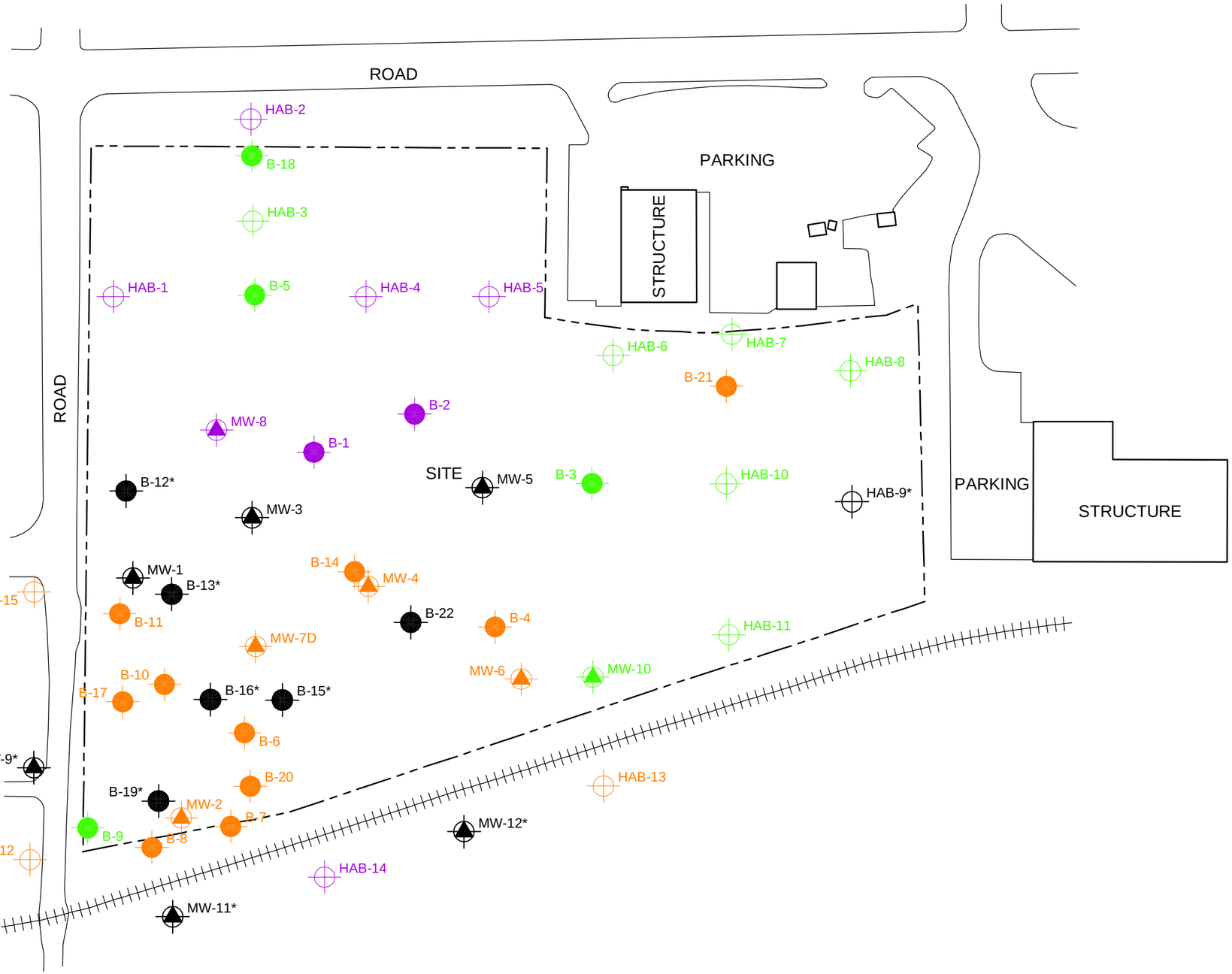
FORMER COLUMBUS WOOD PRESERVING SITE
705 2ND STREET
COLUMBUS, INDIANA

GROUNDWATER POTENTIOMETRIC CONTOURS (14 OCTOBER 2008)

SCALE: NOT TO SCALE
OCTOBER 2008

FIGURE 8

G:\33521 - ISM\ACAD\33521-SITEPLAN_GW-CONT-OCT08.DWG



LEGEND:

- PROPERTY LINE
- RAILROAD
- HISTORICAL BORING LOCATION
- MONITORING WELL LOCATION

SAMPLE LOCATION COLOR LEGEND:

- EXCEEDS INDUSTRIAL DEFAULT CLOSURE LEVELS
- EXCEEDS RESIDENTIAL DEFAULT CLOSURE LEVELS
- EXCEEDS FOR ARSENIC ONLY
- NO EXCEEDANCES

NOTE:
ALL LOCATIONS APPROXIMATE.

N
W E
S

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

EXTENT OF SOIL IMPACTS RELATED TO FORMER WOOD PRESERVING SITE

SCALE: NOT TO SCALE
OCTOBER 2008

FIGURE 9

G:\33521 - ISM\ACAD\33521-SITEPLAN_SOIL EXTENTS_OCT08.DWG

LEGEND:

PROPERTY LINE

RAILROAD

MONITORING WELL LOCATION

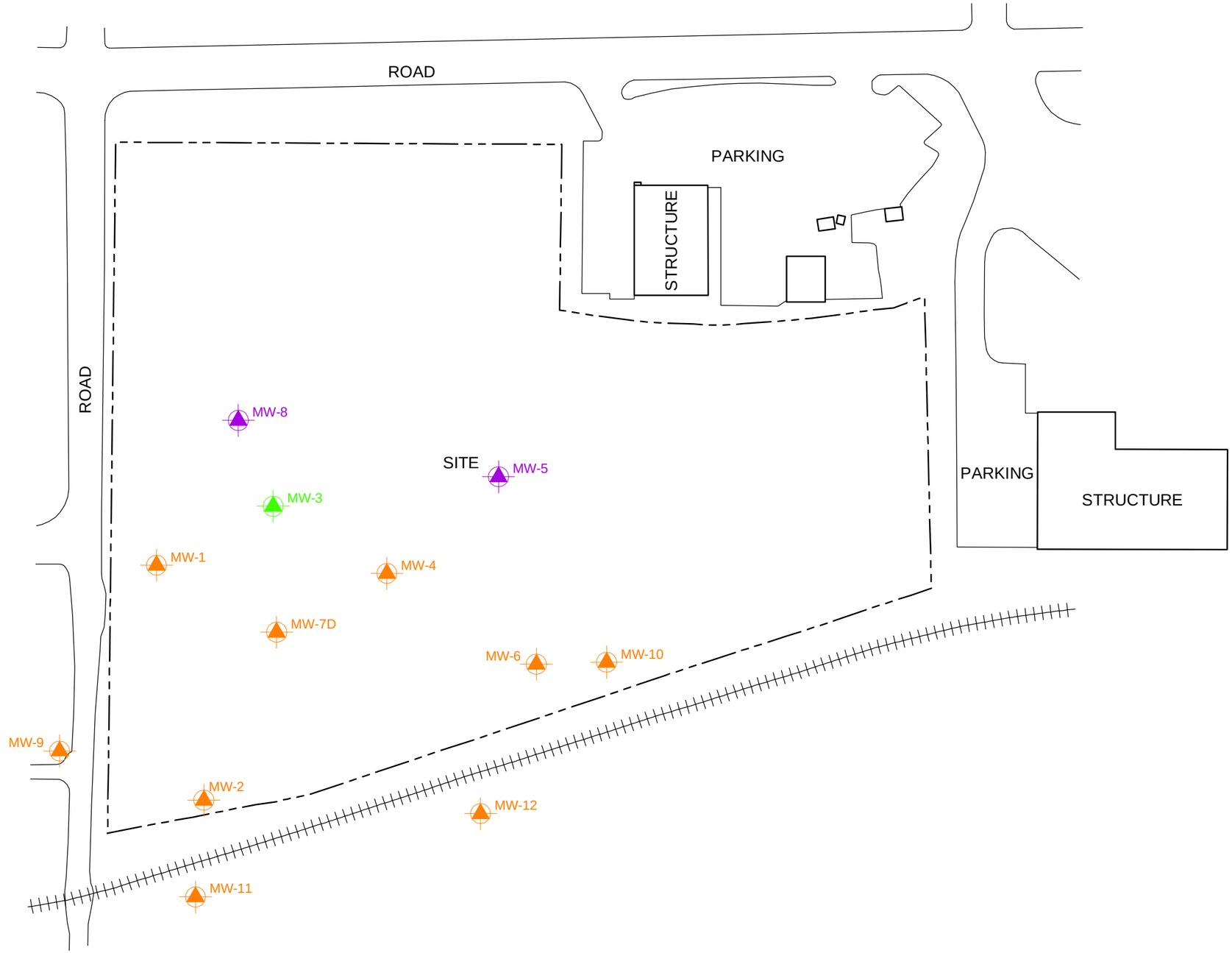
SAMPLE LOCATION COLOR LEGEND:

EXCEEDS INDUSTRIAL DEFAULT CLOSURE LEVELS

EXCEEDS RESIDENTIAL DEFAULT CLOSURE LEVELS

NO EXCEEDANCES

NOTE:
ALL LOCATIONS APPROXIMATE.



N

W E

S

HALEY & ALDRICH

FORMER COLUMBUS WOOD PRESERVING SITE
705 2nd STREET
COLUMBUS, INDIANA

EXTENT OF GROUNDWATER IMPACTS
RELATED TO FORMER
WOOD PRESERVING SITE

SCALE: NOT TO SCALE
OCTOBER 2008

FIGURE 10

G:\33521 - ISM\ACAD\33521-SITEPLAN_GW EXTENTS_OCT08.DWG

Appendix D

TABLE 1

City of Columbus
Former Wood Treating Plant
Groundwater
Volatile Organic Compounds
BCA Project # 7873/10-024

Sample No.	Date Sampled	Benzene	Chloroform	Ethylbenzene	Isopropylbenzene (Cum	Naphthalene	Toluene	1,1,1-Trichloroethane	Trichloroethene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylene, M&P	Xylene, 0rtho	Xylene (Total)	Other VOCs
MW-1	1/11/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-2	1/13/10	77.5	< 5	< 50	< 5	5,680	111	< 50	< 50	< 50	< 5	89.4	< 50	89.4	ND
MW-3	1/11/10	< 5	< 5	< 5	< 5	899	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-4	1/13/10	< 5	< 5	5.86	< 5	210	< 5	< 5	< 5	5.41	< 5	< 5	6.86	6.86	ND
MW-5	1/12/10	< 5	< 5	< 5	< 5	226	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-6	1/12/10	< 5	< 5	< 5	< 5	113	< 5	< 5	< 5	16.8	< 5	< 5	< 5	< 10	ND
MW-7D	1/13/10	< 5	< 5	< 5	< 5	135	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-7D DUP	1/13/10	< 5	< 5	< 5	< 5	564	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-7DD	3/2/10	< 5	6.14	< 5	11.1	2,270	< 5	< 5	< 5	53.6	24.7	13.2	9.74	22.9	ND
MW-8	1/12/10	< 5	< 5	< 5	< 5	49.3	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-9	1/12/10	< 5	< 5	< 5	< 5	1,040	< 5	< 5	< 5	16.6	< 5	10.6	5.96	16.6	ND
MW-10	1/12/10	< 5	< 5	32.5	< 5	601	< 5	< 5	< 5	29.7	< 5	32.7	17.7	50.4	ND
MW-11	1/12/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-12	1/12/10	< 5	< 5	< 5	< 5	187	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
MW-13	3/2/10	5.32	< 5	21.9	< 5	3,410	< 5	< 5	< 5	44.1	12.7	25.4	20.8	46.2	ND
MW-14	3/2/10	< 5	< 5	< 5	< 5	446	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
B-21D	1/13/10	< 5	< 5	< 5	< 5	826	< 5	< 5	< 5	9.01	< 5	< 5	< 5	< 10	ND
B-22D	1/13/10	< 5	< 5	< 5	< 5	55.9	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
B-23	1/14/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
B-24	1/14/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
B-25	1/14/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
B-26	1/14/10	< 5	< 5	< 5	< 5	< 5	< 5	6.98	10.9	< 5	< 5	< 5	< 5	< 10	ND
B-27	1/13/10	< 5	< 5	< 5	< 5	< 5	< 5	9.69	13.4	< 5	< 5	< 5	< 5	< 10	ND
EQ BLANK	1/13/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
TRIP BLANK	1/14/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND
TB	3/2/10	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 5	< 10	ND

IDEM RISC Residential Limits	5	80	700	830	8.3	1000	200	5	16	16	NA	NA	10000	varies
IDEM RISC Industrial Limits	52	1000	10000	10000	2000	8200	29000	31	5100	5100	NA	NA	20,000	varies

Notes:
Samples analyzed using EPA SW-846 Method 8260
ug/L = micrograms per liter
VOCs = Volatile Organic Compounds

TABLE 2

City of Columbus
Former Wood Treating Plant
Groundwater
Semi-volatile Organic Compounds/PAHs
BCA Project # 7873/10-024

Sample No.	Date Sampled	Aniline	Carbazole	Dibenzofuran	2,4-Dimethylphenol	bis(2-Ethylhexyl)phthalate	2-Methylphenol (o-Cresol)	3&4-Methylphenol	Pentachlorophenol	Phenol	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene
MW-1	1/11/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
MW-2	1/13/10	**225**	< 20	**315**	**349**	< 5	**1490**	**1540**	**3270**	**855**	**113**	**11.6**	**3.47**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
MW-3	1/11/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
MW-4	1/13/10	< 10	**288**	**28.7**	< 10	< 5	< 10	< 20	**813**	< 10	**25.6**	< 1.0	**1.67**	**1.08**	**1.31**	**1.43**	**0.71**	**0.53**	**1.61**	**0.23**	**3.38**	**7.03**	**0.65**	**1.20**
MW-5	1/12/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
MW-6	1/12/10	< 10	< 20	**352**	< 10	< 5	< 10	< 20	< 50	< 10	**222**	**4.03**	**10.8**	**3.32**	**2.05**	**2.72**	**0.97**	**1.37**	**3.27**	**0.30**	**21.4**	**81.0**	**0.98**	< 1.0
MW-7D	1/13/10	< 10	< 20	**44.3**	< 10	< 5	< 10	< 20	< 50	< 10	**41.7**	< 1.0	**3.89**	**0.16**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**6.15**	**14.8**	< 0.022	< 1.0
MW-7D DUP	1/13/10	< 10	< 20	**45.7**	< 10	< 5	< 10	< 20	< 50	< 10	**47.1**	< 1.0	**3.62**	**0.14**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	**5.84**	**16.5**	< 0.022	< 1.0
MW-7DD	3/2/10	< 10	**31**	**110**	< 10	< 5	< 10	< 20	< 50	< 10	**264**	**1.0**	**9.10**	**3.07**	**1.14**	**1.86**	< 0.10	**0.54**	**2.11**	< 0.10	**28**	**150**	< 0.022	< 1.0
MW-8	1/12/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
MW-9	1/12/10	< 10	< 20	**127**	< 10	< 5	< 10	< 20	< 50	< 10	**72.6**	**1.85**	**4.12**	**0.59**	**0.31**	**0.44**	**0.16**	**0.20**	**0.47**	< 0.10	**5.08**	**18.6**	**0.15**	**29.4**
MW-10	1/12/10	< 10	< 20	**19.0**	< 10	< 5	< 10	< 20	< 50	< 10	**22.4**	< 1.0	**0.17**	**0.56**	**0.18**	**0.29**	< 0.10	**0.11**	**0.47**	< 0.10	**7.38**	**10.2**	**0.08**	< 1.0
MW-11	1/12/10	< 10	**328**	**161**	< 10	< 5	< 10	< 20	< 50	< 10	**88.4**	**1.46**	**1.00**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	<1.0	**22.0**	< 0.022	< 1.0
MW-12	1/12/10	< 10	< 20	**19.6**	< 10	< 5	< 10	< 20	< 50	< 10	**43.9**	< 1.0	**0.32**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	**7.42**	< 0.022	< 1.0
MW-13	3/2/10	< 10	< 20	**140**	< 10	**55**	< 10	< 20	< 50	< 10	**230**	< 1.0	**6.01**	**2.05**	**0.70**	**1.08**	< 0.10	**0.36**	**1.37**	< 0.10	**10.4**	**160**	< 0.022	**240**
MW-14	3/2/10	< 10	< 20	**56**	< 10	< 5	< 10	< 20	< 50	< 10	**150**	< 1.0	**5.04**	**0.62**	**0.70**	**1.08**	< 0.10	**0.36**	**0.34**	< 0.10	**12.9**	**25**	< 0.022	**2.6**
B-21D	1/13/10	< 10	**947**	**96.7**	< 10	< 5	< 10	< 20	< 50	< 10	**90.7**	< 1.0	**1.49**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	**24.9**	< 0.022	**3.91**
B-22D	1/13/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	**4.74**	< 1.0	**0.12**	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	**3.67**	< 0.022	< 1.0
B-23	1/14/10	< 10	< 20	**13.8**	< 10	< 5	< 10	< 20	< 50	< 10	**8.33**	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	**1.44**	< 0.022	< 1.0
B-24	1/14/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
B-25	1/14/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
B-26	1/14/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
B-27	1/13/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0
EQ BLANK	1/13/10	< 10	< 20	< 10	< 10	< 5	< 10	< 20	< 50	< 10	< 1.0	< 1.0	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 1.0	< 1.0	< 0.022	< 1.0

IDEM RISC Residential Limits	**NA**	**43**	**15**	**730**	**6**	**1800**	**180**	**1**	**11000**	**460**	**71**	**2300**	**1.2**	**0.2**	**1.2**	**NA**	**12**	**120**	**0.12**	**1500**	**310**	**1.200**	**31**
IDEM RISC Industrial Limits	**NA**	**140**	**200**	**2000**	**200**	**5100**	**510**	**24**	**31000**	**6100**	**730**	**3100**	**3.9**	**0.39**	**3.9**	**NA**	**39**	**390**	**0.39**	**4100**	**4100**	**3.900**	**410**

ND - Non-Detectable
ųg/L - micrograms per liter
ppb - parts per billion
VOCs - volatile organic compounds

TABLE 3

City of Columbus
Former Wood Treating Plant
Groundwater

TPH-ERO

BCA Project # 7873/10-024

Sample No.	Date Sampled	TPH-ERO
MW-1	1/11/10	< 100
MW-2	1/13/10	**91,400**
MW-3	1/11/10	< 100
MW-4	1/13/10	**2,150**
MW-5	1/12/10	< 100
MW-6	1/12/10	**4,090**
MW-7D	1/13/10	**725**
MW-7D DUP	1/13/10	**760**
MW-7DD	3/2/10	**5,790**
MW-8	1/12/10	< 100
MW-9	1/12/10	**3,650**
MW-10	1/12/10	**636**
MW-11	1/12/10	**7,050**
MW-12	1/12/10	**885**
MW-13	3/2/10	**8,070**
MW-14	3/2/10	**1,940**
B-21D	1/13/10	**2,320**
B-22D	1/13/10	**283**
B-23	1/14/10	**212**
B-24	1/14/10	< 100
B-25	1/14/10	< 100
B-26	1/14/10	< 100
B-27	1/13/10	< 100
EQ BLANK	1/13/10	< 100

IDEM RISC Residential Limits	**100**
IDEM RISC Industrial Limits	**1100**

Notes:
Samples analyzed using EPA SW-846 Method 8015
Results in ug/L

Arsenic

Sample No.	Date Sampled	Arsenic
MW-1	1/11/10	< 0.01
MW-2	1/13/10	**0.01**
MW-3	1/11/10	< 0.01
MW-4	1/13/10	**0.01**
MW-5	1/12/10	< 0.01
MW-6	1/12/10	< 0.01
MW-7D MS/MSD	1/13/10	< 0.01
MW-7D DUP	1/13/10	< 0.01
MW-7DD		NA
MW-8	1/12/10	< 0.01
MW-9	1/12/10	< 0.01
MW-10	1/12/10	< 0.01
MW-11	1/12/10	**0.02**
MW-12	1/12/10	< 0.01
MW-13		NA
MW-14		NA
B-21D	1/13/10	< 0.01
B-22D	1/13/10	< 0.01
B-23	1/14/10	< 0.01
B-24	1/14/10	< 0.01
B-25	1/14/10	< 0.01
B-26	1/14/10	< 0.01
B-27	1/13/10	< 0.01
EQ BLANK	1/13/10	< 0.01

IDEM RISC Residential Limits	**10**
IDEM RISC Industrial Limits	**10**

ND - Non-Detectable
ug/L - micrograms per liter
ppb - parts per billion
NA= Not Analyzed

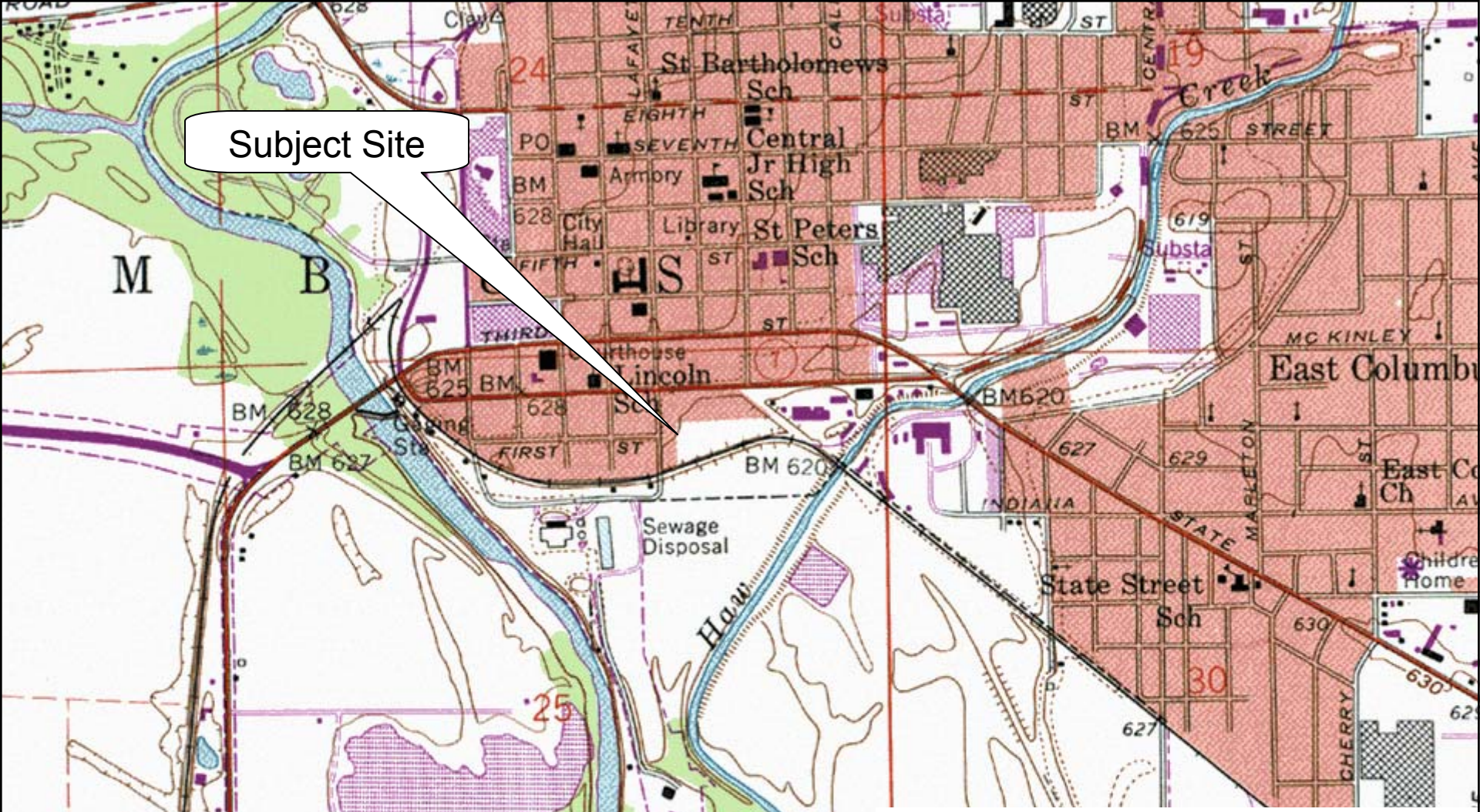
Table 4
Groundwater Levels
Columbus Creosote Site

Groundwater Elevation Data
January, 2010

Well #	Well Elevation	Water Levels 1/13/2010	Groundwater Elevation 1/13/2010
MW-1	629.13	21.21	607.92
MW-2	626.15	21.29	604.86
MW-3	627.02	19.79	607.23
MW-4	626.70	21.25	605.45
MW-5	624.31	18.62	605.69
MW-6	625.46	20.20	605.26
MW-7D	622.90	18.02	604.88
MW-8	626.81	18.89	607.92
MW-9	620.48	12.20	608.28
MW-10	624.05	18.65	605.40
MW-11	621.18	16.86	604.32
MW-12	623.89	19.16	604.73
B-23	613.57	10.51	603.06
B-24	614.09	11.45	602.64
B-25	614.54	10.11	604.43
B-26	615.74	10.98	604.76
B-27	615.62	11.31	604.31

Groundwater Elevation Data
March, 2010

Well #	Well Elevation	Water Levels 3/2/2010	Groundwater Elevation 3/2/2010
MW-1	629.13	21.19	607.94
MW-2	626.14	20.84	605.30
MW-3	627.02	19.74	607.28
MW-4	626.71	20.86	605.85
MW-5	624.32	18.22	606.10
MW-6	625.50	19.78	605.72
MW-7D	622.90	17.55	605.35
MW-7dd	625.30	19.99	605.31
MW-8	626.82	18.89	607.93
MW-9	620.48	12.25	608.23
MW-10	624.07	18.25	605.82
MW-11	621.21	16.34	604.87
MW-12	623.95	18.71	605.24
MW-13	622.74	17.67	605.07
MW-14	623.15	17.80	605.35



Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

APPROXIMATE SCALE: NTS

DRAWN BY: D Scovel

DATE: 3/8/10

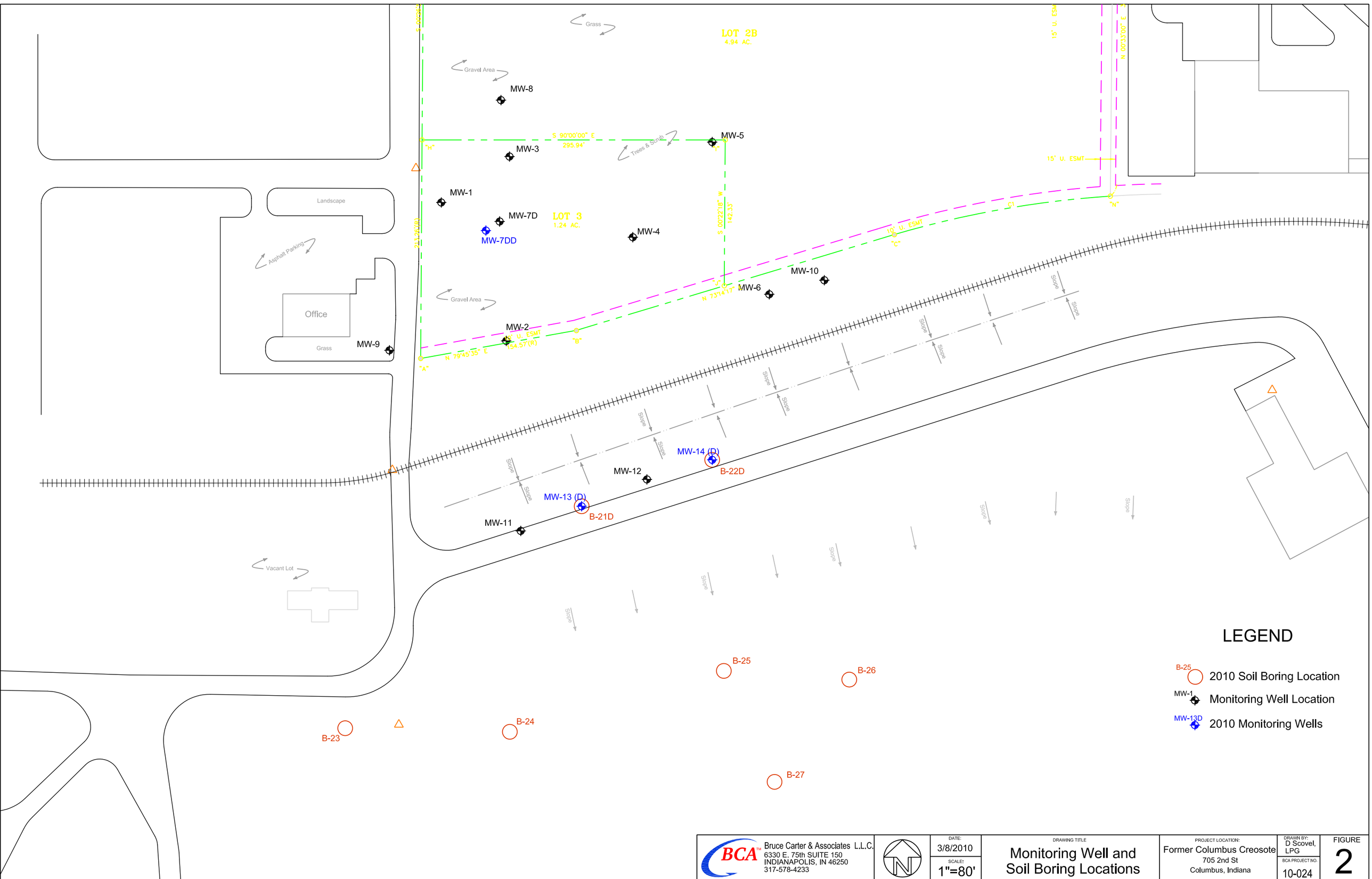
BCA PROJECT NO. 10-024

DRAWING TITLE

SITE LOCATION MAP

PROJECT LOCATION:
Former Columbus Creosote
705 2nd St
Columbus, Indiana

FIGURE 1



Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 3/8/2010 SCALE: 1"=80'	DRAWING TITLE Monitoring Well and Soil Boring Locations	PROJECT LOCATION: Former Columbus Creosote 705 2nd St Columbus, Indiana	DRAWN BY: D Scovel, LPG BCA PROJECT NO. 10-024 FIGURE 2

MW-1 25' 01-11-10

All VOCs	ND
TPH-ERO	ND

MW-8 24' 01-11-10

Naphthalene	49.3 ug/L
Other VOCs	ND
TPH-ERO	ND

MW-3 25' 01-11-10

Naphthalene	899 ug/L
Other VOCs	ND
TPH-ERO	ND

MW-5 25' 01-12-10

Naphthalene	226 ug/L
Other VOCs	ND
TPH-ERO	ND

MW-4 25' 01-12-10

Naphthalene	226 ug/L
Ethylbenzene	5.86 ug/L
1,2,4 Trimethylbenzene	5.41 ug/L
Xylenes	6.86 ug/L
Other VOCs	ND
TPH-ERO	2150 ug/L

MW-7D 50' 01-13-10

Naphthalene	564 ug/L
Other VOCs	ND
TPH-ERO	760 ug/L

MW-6 25' 01-12-10

Naphthalene	113 ug/L
1,2,4 Trimethylbenzene	16.8 ug/L
Other VOCs	ND
TPH-ERO	4090 ug/L

MW-10 23' 01-12-10

Naphthalene	601 ug/L
1,2,4 Trimethylbenzene	29.7 ug/L
Xylenes	50.4 ug/L
Other VOCs	ND
TPH-ERO	636 ug/L

MW-2 25' 01-13-10

Naphthalene	5680 ug/L
Benzene	77.5 ug/L
Toluene	111 ug/L
Xylenes	89.4 ug/L
Other VOCs	ND
TPH-ERO	91,400 ug/L

MW-7DD 62' 3-2-10

Naphthalene	2,270 ug/L
1,2,4 Trimethylbenzene	53.6 ug/L
1,3,5 Trimethylbenzene	24.7 ug/L
Chloroform	6.14 ug/L
Isopropylbenzene	11.1 ug/L
Xylenes	22.9 ug/L
Other VOCs	ND
TPH-ERO	5,790 ug/L

MW-9 26' 01-12-10

Naphthalene	1,040 ug/L
1,2,4 Trimethylbenzene	16.6 ug/L
Xylenes	16.6 ug/L
Other VOCs	ND
TPH-ERO	3,650 ug/L

MW-12 25' 01-12-10

Naphthalene	187 ug/L
Other VOCs	ND
TPH-ERO	885 ug/L

MW-14 54' 3-2-10

Naphthalene	446 ug/L
Other VOCs	ND
TPH-ERO	1,940 ug/L

B-22D 50' 01-13-10

Naphthalene	55.9 ug/L
Other VOCs	ND
TPH-ERO	283 ug/L

MW-11 25' 01-12-10

All VOCs	ND
TPH-ERO	7,050 ug/L

B-21D 50' 01-13-10

Naphthalene	826 ug/L
1,2,4 Trimethylbenzene	9.01 ug/L
Other VOCs	ND
TPH-ERO	2,320 ug/L

MW-13 52' 3-2-10

Naphthalene	3,410 ug/L
1,2,4 Trimethylbenzene	44.1 ug/L
1,3,5 Trimethylbenzene	12.7 ug/L
Benzene	5.32 ug/L
Ethylbenzene	21.9 ug/L
Xylenes	46.2 ug/L
Other VOCs	ND
TPH-ERO	8,070 ug/L

B-25 12' 01-13-10

All VOCs	ND
TPH-ERO	ND

B-26 12' 01-13-10

Trichloroethene	10.9 ug/L
1,1,1 Trichloroethane	6.98 ug/L
Other VOCs	ND
TPH-ERO	ND

B-27 12' 01-13-10

Trichloroethene	13.4 ug/L
1,1,1 Trichloroethane	9.69 ug/L
Other VOCs	ND
TPH-ERO	ND

B-23 12' 01-13-10

All VOCs	ND
TPH-ERO	212 ug/L

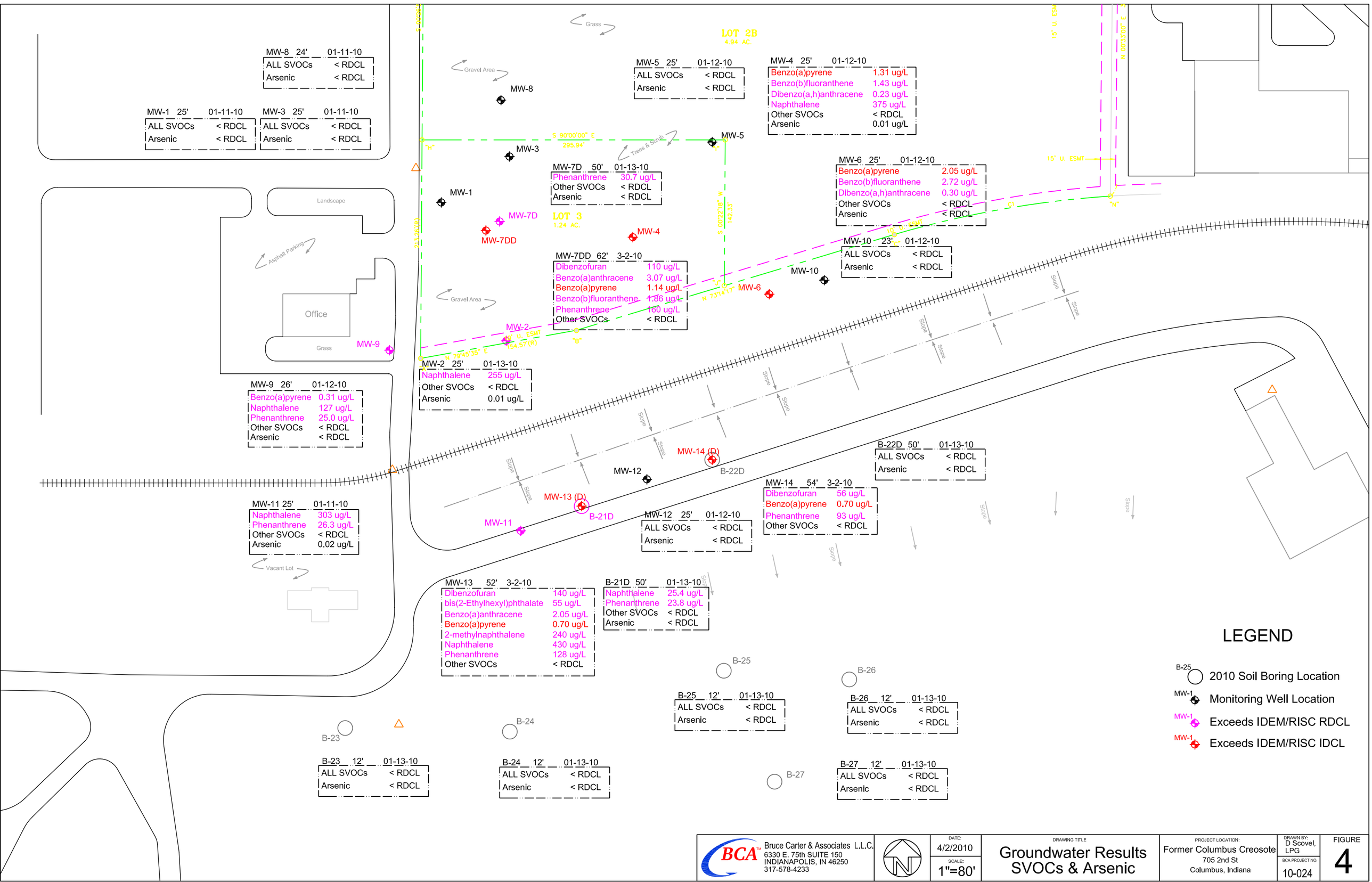
B-24 12' 01-13-10

All VOCs	ND
TPH-ERO	ND

LEGEND

- B-25 — 2010 Soil Boring Location
- MW-1 — Monitoring Well Location
- MW-1 — Exceeds IDEM/RISC RDCL
- MW-1 — Exceeds IDEM/RISC IDCL

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233		DATE: 3/8/2010 SCALE: 1"=80'	DRAWING TITLE: Groundwater Results VOCs & TPH-ERO	PROJECT LOCATION: Former Columbus Creosote 705 2nd St Columbus, Indiana	DRAWN BY: D Scovel, LPG BCA PROJECT NO. 10-024	FIGURE 3



Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 4/2/2010 SCALE: 1"=80'	DRAWING TITLE Groundwater Results SVOCs & Arsenic	PROJECT LOCATION: Former Columbus Creosote 705 2nd St Columbus, Indiana	DRAWN BY: D Scovel, LPG BCA PROJECT NO. 10-024	FIGURE 4

LOT 2B
4.94 AC.

LOT 3
1.24 AC.

608.00
607.00
606.00
605.20
605.10
605.00
604.00
603.00

MW-8
607.93

MW-5
606.10

MW-3
607.28

MW-1
607.94

MW-7D
605.35

MW-7dd
605.31

MW-4
605.85

MW-10
605.82

MW-6
605.72

MW-2
605.30

MW-9
608.23

MW-14
605.35

MW-12
605.24

MW-13
605.07

MW-11
604.87

B-22D
B-21D

B-25
604.23

B-26
604.76

B-24
602.60

B-23
608.06

B-27
604.21

Landscape
Asphalt Parking
Office
Grass

S 90°00'00" E
283.94'
S 00°22'18" W
142.33'
N 73°14'17" E
N 79°45'15" E
N 00°33'00" E
213.26'(M)
15' U. ESMT
10' U. ESMT
"A"
"B"
"C"
"H"
"I"
"N"
C1

LEGEND

- B-25 — 2010 Soil Boring Location
- MW-1 — Monitoring Well Location
- 607.00 — Upper Groundwater Contours
- 605.00 — Lower Groundwater Contours
- 607.94 — Groundwater Levels

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 3/8/2010 SCALE: 1"=80'	DRAWING TITLE Groundwater Flow	PROJECT LOCATION: Former Columbus Creosote 705 2nd St Columbus, Indiana	DRAWN BY: D Scovel BCA PROJECT NO. 10-024	FIGURE 5

Appendix E

TABLE 1A
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM PROBES P-1 - P-11
AUGUST 2, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Depth (in feet)	Date Sampled	Lab Sample ID	Units in mg/kg (ppm)																					
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h) anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Migration				**1,800**	**180**	**36,000**	**62**	**16**	**190**	**NA**	**1,900**	**20**	**6,200**	**60**	**65**	**25**	**NA**	**18,000**	**2,300**	**540**	**42**	**170**	**0.66**	**170**	**160**	**13,000**
ICL-Direct				**24,000**	**2800**	**120,000**	**15**	**1.5**	**15**	**NA**	**150**	**690**	**1,500**	**1.5**	**980**	**9,800**	**NA**	**16,000**	**16,000**	**15**	**1600**	**8,000**	**54**	**1,200**	**96,000**	**12,000**
P-1 (8-9)	8-9	8/2/11	11-15470	< 0.38	**1.06**	**0.97**	**2.79**	**3.85**	**5.71**	**1.52**	**1.68**	< 0.75	**3.26**	**0.68**	< 0.38	< 0.38	< 0.38	**2.36**	< 0.38	**1.47**	< 0.38	< 0.38	<0.57	**0.89**	< 0.38	**2.81**
P-1 (12-14)	12-14	8/2/11	11-15471	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.60	< 0.36	< 0.40	< 0.40
P-1 (16-18)	16-18	8/2/11	11-15472	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.78	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.59	< 0.35	< 0.39	< 0.39
P-2 (2-4)	2-4	8/2/11	11-15473	**0.86**	< 0.36	**1.19**	**0.64**	< 0.36	**0.45**	< 0.36	< 0.36	**2.4**	**0.48**	< 0.36	**0.91**	< 0.36	< 0.36	**3.77**	**1.84**	< 0.36	< 0.36	< 0.36	**2.21**	**7.51**	< 0.36	**1.94**
P-2 (6-8)	6-8	8/2/11	11-15474	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	**0.8**	**0.69**	< 0.54	**1.01**	< 0.35	< 0.35
P-2 (10-12)	4-6	8/2/11	11-15475	**0.92**	**13.7**	**13.6**	**42.8**	**5.74**	**44.1**	**2.41**	**12.1**	**1.95**	**41.8**	< 0.41	**0.65**	< 0.41	< 0.41	**51.1**	< 0.41	**2.38**	**0.53**	**0.98**	< 0.62	**6.5**	< 0.41	**58.5**
P-2 (14-16)	14-16	8/2/11	11-15476	**66.8**	< 0.38	**5.55**	**23.9**	**11.6**	**18.9**	< 0.38	**0.81**	**16.3**	**3.34**	< 0.38	**52.2**	< 0.38	< 0.38	**85.4**	**69.4**	**0.38**	**2.21**	**3.06**	< 0.57	**159**	< 0.38	**67.4**
P-2 (16-18)	16-18	8/2/11	11-15477	< 0.37	< 0.37	< 0.37	**0.47**	**0.67**	**0.86**	< 0.37	< 0.37	< 0.74	**0.68**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	**0.4**	**0.4**	< 0.56	**0.48**	< 0.37	< 0.37
P-2D (16-18)	16-18	8/2/11	11-15478	**16.7**	< 3.70	**10.4**	**6.5**	**3.78**	**3.86**	< 3.70	< 3.70	**6.07**	**6.07**	< 3.70	**14.9**	< 3.70	< 3.70	**33.3**	**23.6**	< 3.70	< 3.70	< 3.70	< 5.60	**69.6**	< 3.70	**21.4**
P-3 (2-4)	2-4	8/2/11	11-15479	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	**0.53**	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	**0.96**	**0.99**	< 0.55	**1.33**	< 0.36	< 0.36
P-3 (6-8)	6-8	8/2/11	11-15480	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.70	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-3 (10-12)	10-12	8/2/11	11-15481	< 0.37	< 0.37	**2.9**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	**2.2**	**0.79**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.56	< 0.34	< 0.37	< 0.37
P-3 (14-16)	14-16	8/2/11	11-15482	**1.64**	**1.44**	**1.45**	**1.01**	**1.85**	**2.48**	**0.89**	**0.52**	**1**	**0.86**	< 0.38	**1.18**	< 0.38	< 0.38	**2.43**	**1.73**	**0.94**	**0.8**	**2.23**	**3.26**	**3.78**	< 0.38	**1.35**
P-3 (18-19)	18-19	8/2/11	11-15483	**90.9**	**2.31**	**48.5**	**5.62**	**6.12**	**3.45**	**0.43**	**0.76**	**59.7**	**4.05**	< 0.41	**84.5**	< 0.41	< 0.41	**87.2**	**94**	**0.5**	**73.1**	**70.9**	< 0.62	**185**	< 0.41	**62.7**
P-4 (10-11)	10-11	8/2/11	11-15484	**0.92**	< 0.44	**0.76**	< 0.44	< 0.44	< 0.44	< 0.44	< 0.44	**0.97**	< 0.44	< 0.44	**1.69**	< 0.44	< 0.44	**1.12**	**1.07**	< 0.44	**1.49**	**1.47**	< 0.67	**3.78**	< 0.44	**0.74**
P-4 (11-12)	11-12	8/2/11	11-15485	**4.17**	< 0.43	**2.34**	**1.71**	**0.96**	**1.53**	< 0.43	**0.54**	**1.59**	**1.85**	< 0.43	**2.59**	< 0.43	< 0.43	**6.92**	**3.01**	< 0.43	**1.97**	**2.68**	**4.83**	**9.82**	< 0.43	**4.85**
P-4 (15-16)	15-16	8/2/11	11-15513	**267**	**12.4**	**131**	**50.5**	**4.17**	**27.7**	**0.68**	**9.16**	**194**	**4.48**	< 0.39	**197**	< 0.39	< 0.39	**237**	**216**	**0.89**	**264**	**328**	**80.2**	**524**	< 0.39	**154**
P-4 (18-19)	18-19	8/2/11	11-15486	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	**0.58**	< 0.35	< 0.38	< 0.38
P-5 (13-14)	13-14	8/2/11	11-15487	**33.7**	< 4.00	**39.5**	**7.23**	**4.24**	**5.22**	< 4.00	< 4.00	**36.3**	**7.07**	< 4.00	**24**	< 4.00	< 4.00	**49.6**	**35.7**	< 4.00	**10.3**	**8.99**	< 6.00	**103**	< 4.00	**25.8**
P-5 (14-15)	14-15	8/2/11	11-15488	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-6 (2-4)	2-4	8/2/11	11-15489	**6,790**	< 123	**5,296**	**1,186**	**530**	**675**	**159**	**321**	**5,346**	**1,022**	< 123	**4,259**	< 123	< 123	**4,877**	**5,728**	**157**	**2,198**	**3,568**	< 186	**8,272**	< 123	**4,877**
P-6 (9-10)	9-10	8/2/11	11-15490	**172**	**4.92**	**49.6**	**23.9**	**12.9**	**16.1**	< 4.00	**6.3**	**49.7**	**22.6**	< 4.00	**116**	< 4.00	< 4.00	**152**	**134**	< 4.00	**76.9**	**313**	**17.5**	**327**	< 4.00	**112**
P-6 (12-14)	12-14	8/2/11	11-15514	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.55	< 0.33	< 0.36	< 0.36
P-6 (17.5-18.5)	17.5-18.5	8/2/11	11-15492	**1.91**	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	**0.85**	< 0.36	< 0.36	**1.2**	< 0.36	< 0.36	**1.09**	**1.2**	< 0.36	< 0.36	**1.21**	< 0.55	**1.45**	< 0.36	**0.85**
P-7 (2-4)	2-4	8/2/11	11-15493	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	**0.37**	**0.39**	< 0.54	**0.37**	< 0.35	< 0.35
P-7 (6-8)	6-8	8/2/11	11-15494	< 0.37	< 0.37	**0.45**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.74	**0.55**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	**0.98**	**0.61**	< 0.56	**1.14**	< 0.37	< 0.37
P-8 (2-4)	2-4	8/2/11	11-15495	**5.1**	**0.42**	**5.86**	**1.12**	**1.31**	**2.05**	**0.89**	**0.78**	**2.33**	**1.29**	< 0.40	**4.74**	< 0.40	< 0.40	**6.99**	**5.42**	**0.82**	**4.42**	**8.92**	< 0.60	**13.9**	< 0.40	**5.46**
P-8 (6-8)	6-8	8/2/11	11-15496	**15.85**	**0.68**	< 738	**4.72**	**1.79**	**2.09**	< 0.40	**0.99**	**817**	**23**	< 0.40	**77.6**	< 0.40	< 0.40	**32.7**	**165**	< 0.40	**44.9**	**105**	< 0.61	**228**	< 0.40	**24.5**
P-8 (10-12)	10-12	8/2/11	11-15497	< 0.37	**0.45**	**0.64**	**1.44**	**1.78**	**2.49**	**0.79**	**0.85**	< 0.73	**1.73**	< 0.37	< 0.37	< 0.37	< 0.37	**5.63**	< 0.37	**0.77**	< 0.37	< 0.37	< 0.56	**1.79**	< 0.37	**5**
P-8 (14-16)	14-16	8/2/11	11-15498	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-9 (2-4)	2-4	8/2/11	11-15499	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-9 (6-8)	6-8	8/2/11	11-15500	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.89	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.68	< 0.41	< 0.45	< 0.45
P-9 (10-12)	10-12	8/2/11	11-15501	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.73	< 0.37	< 0.37	< 0.37	< 0.37	**1.88**	< 0.37	< 0.37	< 0.37	< 0.37	< 0.37	< 0.56	< 0.33	**0.89**	< 0.37
P-9 (19-20)	19-20	8/2/11	11-15502	**421**	**7.86**	**605**	**85.1**	**42.1**	**45.6**	**8.89**	**22.4**	**573**	**86.9**	< 3.90	**337**	< 3.90	< 3.90	**480**	**550**	**9.68**	**202**	**615**	**484**	**976**	< 3.90	**381**
P-10 (2-4)	2-4	8/2/11	11-15503	**14.3**	< 3.70	**10.4**	**3.74**	< 3.70	< 3.70	< 3.70	< 3.70	**10.8**	**4.81**	< 3.70	**11.7**	< 3.70	< 3.70	**18.3**	**14.7**	< 3.70	**5.04**	**20.1**	**14**	**46.7**	< 3.70	**14.2**
P-10 (6-8)	6-8	8/2/11	11-15504	**29.8**	< 4.10	**15.6**	**8.7**	**4.2**	**4.32**	< 4.10	< 4.10	**11.9**	**8.85**	< 4.10	**25.7**	< 4.10	< 4.10	**51.4**	**35.8**	< 4.10	**14.2**	**38**	**70.4**	**111**	< 4.10	**42**
P-10 (8-10)	8-10	8/2/11	11-15515	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-10 (10-12)	10-12	8/2/11	11-15505	< 0.38	< 0.38	**0.62**	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	**0.77**	< 0.38	< 0.38	**0.51**	< 0.38	**0.5**	**0.58**	< 0.38	**1.26**	**1.19**	< 0.58	**1.95**	< 0.38	**0.47**
P-10 (14-16)	14-16	8/2/11	11-15506	**409**	< 64.5	**409**	**163**	**108**	**120**	< 64.5	**75**	**440**	**186**	< 64.5	**364**	< 64.5	< 64.5	**803**	**487**	< 64.5	**651**	**2,520**	**1,040**	**1,711**	< 64.5	**588**
P-11 (2-4)	2-4	8/2/11	11-15507	**773**	**86**	**630**	**240**	**177**	**177**	< 66.0	**105**	**514**	**285**	< 66.0	**646**	< 66.0	< 66.0	**1,080**	**927**	< 66.0	**707**	**2,370**	**1,650**	**2,230**	< 66.0	**853**
P-11 (6-8)	6-8	8/2/11	11-15508	**61.2**	< 4.20	**23.2**	**10.7**	**6.37**	**5.32**	< 4.20	**5.19**	**24.7**	**11.5**	< 4.20	**44.7**	< 4.20	< 4.20	**63.71**	**59.1**	< 4.20	**38.2**	**136**	**72.2**	**128**	< 4.20	**44.7**
P-11 (9-10)	9-10	8/2/11	11-15509	**46.4**	< 4.20	**18.6**	**7.38**	**4.47**	**4.35**	< 4.20	< 4.20	**21.8**	**9.11**	< 4.20	**36.2**	< 4.20	< 4.20	**47.7**	**45.6**	< 4.20	**24.4**	**93.3**	< 6.30	**103**	< 4.20	**32**
P-11D (9-10)	9-10	8/2/11	11-15510	**1,110**	**17**	**333**	**131**	**47.2**	**85.5**	**11.4**	**21.7**	**327**	**123**	< 3.90	**716**	< 3.90	< 3.90	**637**	**812**	**12.5**	**685**	**1,080**	**246**	**1,280**	< 3.90	**617**
P-11 (14-16)	14-16	8/2/11	11-15511	**43.6**	< 4.10	**114**	**7.61**	**6.01**	**4.4**	< 4.10	< 4.10	**109**	**11.5**	< 4.10	**40.4**	< 4.10	< 4.10	**52.3**	**53.5**	< 4.10	**20.6**	**59.3**	< 6.20	**144**	< 4.10	**38.2**
P-11 (18-19)	18-19	8/2/11	11-15512	**27.8**	< 3.80	**11.1**	**5.38**	**4.92**	**4.24**	< 3.80	< 3.80	**9.43**	**5.91**	< 3.80	**20.1**	< 3.80	< 3.80	**36.7**	**25.1**	< 3.80	**11.5**	**16.6**	**13.2**	**79.2**	< 3.80	**26.6**

ICL - Migration = Industrial Closure Level - Migration to Groundwater
ICL Direct = Industrial Closure Level - Direct Exposure - Pentachlorophenol
ICL - Direct = Industrial Closure Level - Direct Exposure
All sample concentrations in mg/kg
Samples analyzed by U.S. EPA SW-846 Method 8270 (only detections shown)
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

TABLE 1B
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM P-12 - P-21
AUGUST 3, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Sample Depth	Date Sampled	Lab Sample ID	Units in mg/kg (ppm)																						
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Migration				**1,800**	**180**	**36,000**	**62**	**16**	**190**	**NA**	**1,900**	**20**	**6,200**	**60**	**65**	**25**	**NA**	**18,000**	**2,300**	**540**	**42**	**170**	**0.66**	**170**	**160**	**13,000**
ICL-Direct				**24,000**	**2800**	**120,000**	**15**	**1.5**	**15**	**NA**	**150**	**690**	**1,500**	**1.5**	**980**	**9,800**	**NA**	**16,000**	**16,000**	**15**	**1600**	**8,000**	**54**	**1,200**	**96,000**	**12,000**
P-12 (2-4)	2-4	8/3/11	11-15739	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.69	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-12-(6-8)	6-8	8/3/11	11-15740	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-12-(14-16)	14-16	8/3/11	11-15741	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-12 (18-20)	18-20	8/3/11	11-15742	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.87	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.43	< 0.66	< 0.39	< 0.43	< 0.43
P-13 (6-8)	6-8	8/3/11	11-15743	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.71	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.54	< 0.32	< 0.35	< 0.35
P-13-(10-12)	10-12	8/3/11	11-15744	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.57	< 0.34	< 0.38	< 0.38
P-13 (14-16)	14-16	8/3/11	11-15745	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.79	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.39	< 0.60	< 0.36	< 0.39	< 0.39
P-14 (10-12)	10-12	8/3/11	11-15746	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-14 (16-17)	16-17	8/3/11	11-15747	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.70	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35	< 0.35
P-15 (2-4)	2-4	8/3/11	11-15748	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.73	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.55	< 0.33	< 0.36	< 0.36
P-15 (14-16)	14-16	8/3/11	11-15749	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-16 (10-12)	10-12	8/3/11	11-15750	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.77	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.58	< 0.35	< 0.38	< 0.38
P-16D (10-12)	10-12	8/3/11	11-15751	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.57	< 0.34	< 0.38	< 0.38
P-16 (17-18)	17-18	8/3/11	11-15752	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.62	< 0.37	< 0.41	< 0.41
P-17 (6-8)	6-8	8/3/11	11-15753	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.68	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-17 (14-16)	14-16	8/3/11	11-15754	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.69	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34	< 0.34
P-18 (6-8)	6-8	8/3/11	11-15755	< 0.39	< 0.39	**0.71**	**0.63**	**0.69**	**1.51**	**0.54**	**0.66**	**0.54**	**1.31**	< 0.39	< 0.39	< 0.39	< 0.39	**2.58**	< 0.39	**0.48**	< 0.39	< 0.39	**1.99**	**1.3**	< 0.39	**2.57**
P-18 (17-18)	17-18	8/3/11	11-15756	**26.9**	< 3.30	**27.1**	**8.12**	< 3.30	**4.35**	< 3.30	**4.88**	**15.3**	**13**	< 3.30	**21.9**	< 3.30	< 3.30	**56.1**	**34.3**	< 3.30	< 3.30	< 3.30	< 5.00	**102**	< 3.30	**46.8**
P-19 (6-8)	6-8	8/3/11	11-15757	< 0.38	< 0.38	**0.48**	< 0.38	**0.53**	**0.4**	< 0.38	< 0.38	< 0.76	< 0.38	< 0.38	**0.46**	< 0.38	< 0.38	**0.52**	**0.45**	< 0.38	**0.5**	**0.62**	< 0.57	**1.68**	< 0.38	**0.5**
P-19 (10-12)	10-12	8/3/11	11-15758	**1,480**	**28.8**	**700**	**288**	**156**	**238**	**41**	**89.6**	**35.1**	**304**	< 20.5	**333**	< 20.5	< 20.5	**1,260**	**813**	**44.5**	**70.1**	**23.5**	**232**	**925**	< 20.5	**1,340**
P-19 (12-14)	12-14	8/3/11	11-15759	**3.61**	< 0.43	**3.23**	**1.43**	**0.86**	**1**	< 0.43	< 0.43	**1.87**	**1.55**	< 0.43	**3.14**	< 0.43	< 0.43	**5.83**	**5.83**	< 0.43	**2.96**	**5.58**	**3.43**	**13.9**	< 0.43	**4.74**
P-19 (16-18)	16-18	8/3/11	11-15760	**3.59**	< 0.41	**3.47**	**1.41**	**0.75**	**0.9**	< 0.41	< 0.41	**2.04**	**1.37**	< 0.41	**3.37**	< 0.41	< 0.41	**5.93**	**5.97**	< 0.41	< 0.41	**2.71**	**4.03**	**14.6**	< 0.41	**4.73**
P-20 (8-10)	8-10	8/3/11	11-15761	< 3.70	< 3.70	**6.66**	**12.1**	**8.93**	**24.5**	**4.26**	**10.27**	< 7.30	**26.1**	< 3.70	< 3.70	< 3.70	< 3.70	**85.7**	< 3.70	**4.28**	< 3.70	< 3.70	**57**	**9.58**	< 3.70	**91.4**
P-20 (10-12)	10-12	8/3/11	11-15762	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.62	< 0.37	< 0.41	< 0.41
P-20 (16-18)	16-18	8/3/11	11-15763	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.60	< 0.36	< 0.40	< 0.40
P-21 (8-10)	8-10	8/3/11	11-15764	< 0.40	< 0.40	**0.41**	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.80	< 0.40	< 0.40	**0.43**	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	**1.23**	**1.38**	< 0.60	**1.13**	< 0.40	< 0.40
P-21 (10-12)	10-12	8/3/11	11-15765	< 0.45	< 0.45	**0.46**	**1.13**	**1.7**	**0.95**	< 0.45	< 0.45	< 0.90	**2.59**	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	< 0.45	**0.53**	**0.59**	< 0.68	**1.01**	< 0.45	**0.55**
P-21 (14-16)	14-16	8/3/11	11-15766	**20,610**	**268**	**9,950**	**1,545**	**739**	**1,003**	**137.9**	**454**	**43,990**	**4,300**	< 100	**17,830**	< 100	< 100	**11,820**	**30,760**	**157**	**25,050**	**25,660**	**2,350**	**27,930**	< 100	**12,470**
P-21D (14-16)	14-16	8/3/11	11-15767	**16,670**	**265**	**11,880**	**1,406**	**558**	**648**	**137**	**410**	**36,180**	**1,709**	< 120	**16,000**	< 120	< 120	**9,580**	**25,330**	**135.8**	**14,300**	**22,120**	**1,100**	**23,700**	< 120	**9,580**

ICL-Migration = Industrial Closure Level - Migration to Groundwater
ICL-Direct = Industrial Cleanup Level - Direct Exposure - Pentachlorophenol
ICL-Direct = Industrial Cleanup Level - Direct Exposure
All sample concentrations in mg/kg
Samples analyzed by U.S. EPA SW-846 Method 8270 (only detections shown)
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

TABLE 1C
DELINEATION SAMPLING
SOIL SVOC SAMPLING RESULTS FROM P-22 - P-26
AUGUST 4, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Sample Depth	Date Sampled	Lab Sample ID	Units in mg/kg (ppm)																						
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Carbazole	Chrysene	Dibenzo(a,h)anthracene	Dibenzofuran	2,4-Dimethylphenol	Di-n-butylphthalate	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Phenol	Pyrene
ICL-Migration				**1,800**	**180**	**36,000**	**62**	**16**	**190**	**NA**	**1,900**	**20**	**6,200**	**60**	**65**	**25**	**NA**	**18,000**	**2,300**	**540**	**42**	**170**	**0.66**	**170**	**160**	**13,000**
ICL-Direct				**24,000**	**2,800**	**120,000**	**15**	**1.5**	**15**	**NA**	**150**	**690**	**1,500**	**1.5**	**980**	**9,800**	**NA**	**16,000**	**16,000**	**15**	**1600**	**8,000**	**54**	**1,200**	**96,000**	**12,000**
P-22 (2-4)	2-4	8/4/11	11-15797	< 0.35	< 0.35	**0.55**	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	**0.5**	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 1.72	< 0.32	< 0.35	< 0.35
P-22 (17-18)	17-18	8/4/11	11-15799	**4.4**	< 4.10	**62.1**	< 4.10	< 4.10	< 4.10	< 4.10	< 4.10	**48.6**	< 4.10	< 4.10	**8.81**	< 4.10	< 4.10	**8.6**	**17**	< 4.10	< 4.10	< 4.10	< 19.8	**30.9**	< 4.10	**5.97**
P-23 (10-12)	10-12	8/4/11	11-15800	< 0.41	< 0.41	**0.87**	**1.29**	**1.39**	**2.13**	**1.07**	**0.88**	**0.81**	**1.95**	< 0.41	< 0.41	< 0.41	< 0.41	**3.76**	< 0.41	**1**	< 0.41	**0.45**	**1.98**	**1.79**	< 0.41	**2.81**
P-23 (15-16)	15-16	8/4/11	11-15801	**4.65**	< 4.10	**7.84**	< 4.10	< 4.10	< 4.10	< 4.10	< 4.10	< 8.10	**6.04**	< 4.10	**5.14**	< 4.10	< 4.10	**15.4**	**8.48**	< 4.10	< 4.10	< 4.10	< 19.8	**24.4**	< 4.10	**10.3**
P-24 (7-8)	7-8	8/4/11	11-15802	< 0.36	< 0.36	**1.6**	< 0.36	<0.36	< 0.36	< 0.36	< 0.36	**1.25**	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	**0.41**	< 0.36	< 0.36	< 0.36	< 1.74	**0.77**	< 0.36	< 0.36
P-24 (11-12)	11-12	8/4/11	11-15803	**1,080**	**45.4**	**307**	**346**	**177**	**327**	**47.6**	**104**	**132**	**365**	< 31.2	**473**	< 31.2	< 31.2	**1,430**	**717**	**52.7**	**198**	**178**	**679**	**1,800**	< 31.2	**971**
P-24 (15-16)	15-16	8/4/11	11-15804	**26.2**	< 4.00	**9.4**	**5.43**	< 4.00	< 4.00	< 4.00	< 4.00	**8**	**4.79**	< 4.00	**19**	< 4.00	< 4.00	**27**	**22.9**	< 4.00	**8.51**	**22.7**	< 19.3	**55**	< 4.00	< 4.00
P-24 (18-19)	18-19	8/4/11	11-15805	**67.1**	< 4.00	**16.5**	**12.5**	**7.22**	**8.23**	< 4.00	< 4.00	**14.5**	**11.6**	< 4.00	**47.8**	< 4.00	< 4.00	**76.3**	**57**	< 4.00	**27.1**	**77.9**	< 19.3	**151**	< 4.00	**51.8**
P-25 (10.5-11.0)	10.5-11.5	8/4/11	11-15806	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.75	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 0.38	< 1.82	< 0.34	< 0.38	< 0.38
P-25 (13-14)	13-14	8/4/11	11-15807	**1.82**	**0.74**	**1.32**	**1.76**	**1.92**	**2.54**	**0.8**	**0.76**	**0.76**	**1.81**	< 0.45	< 0.45	< 0.45	< 0.45	**3.62**	**2.38**	**0.8**	< 0.45	**0.56**	< 2.19	**2.12**	< 0.45	**3.69**
P-25 (17-18)	17-18	8/4/11	11-15808	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.81	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 0.41	< 1.98	< 0.37	< 0.41	< 0.41
P-26 (9-10)	9-10	8/4/11	11-15809	< 3.80	< 3.80	**17.3**	**10.8**	**17.2**	**30.2**	**5.87**	**8.83**	**7.5**	**17.9**	< 3.80	< 3.80	< 3.80	< 3.80	**38.2**	< 3.80	**6.44**	< 3.80	< 3.80	< 18.2	**4.05**	< 3.80	**47.4**
P-26 (13-14)	13-14	8/4/11	11-15810	**25.4**	**28**	**69.8**	**64.2**	**98.1**	**166**	**34.9**	**65.6**	< 48.0	**87.8**	< 24.0	< 24.0	< 24.0	< 24.0	**263**	**33.9**	**38.1**	< 24.0	**29.3**	< 117	**146**	< 24.0	**175**
P-26 (17-18)	17-18	8/4/11	11-15811	**7.99**	< 0.40	**3.99**	**1.56**	**0.77**	**1.08**	< 0.40	< 0.40	**3.99**	**1.52**	< 0.40	**6.31**	< 0.40	< 0.40	**5.5**	**8.63**	< 0.40	**11.4**	< 0.40	< 1.93	**19.6**	< 0.40	**3.84**

ICL - Migration = Industrial Closure Level - Migration to Groundwater
ICL Direct = Industrial Closure Level - Direct Exposure - Pentachlorophenol
ICL - Direct = Industrial Closure Level - Direct Exposure
All sample concentrations in mg/kg
Sample analyzed by U.S. EPA SW-846 Method 8270 (only detections shown)
mg/kg - milligrams per kilogram
ppm - parts per million
SVOCs - semi-volatile organic compounds

TABLE 2
DELINEATION SAMPLING
GROUNDWATER SAMPLING RESULTS FROM SB-28 - SB-29
AUGUST 5, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Date Sampled	Lab Sample Number	Acenaphthene	Anthracene	Fluorene	Other SVOCs
IDCL			6100	31000	4100	
RDCL			460	2300	310	
B-28	8/5/11	11-15944	< 1.0	< 0.10	< 1.0	ND
B-29	8/5/11	11-15945	**19.0**	**0.36**	**1.07**	ND
B-29 DUP	8/5/11	11-15946	**21.5**	**0.25**	**1.45**	ND

COC concentration greater than the RISC Industrial / Commercial Default Cleanup Level (IDCL)
COC concentration greater than the RISC Residential Default Cleanup Level (RDCL)
All concentrations in ug/L
Samples analyzed by U.S. EPA SW-846 Method 8270/8270SIM (only detections shown)
ug/L - micrograms per liter
ppb - parts per billion

TABLE 3
SAP DELINEATION
SOIL TCLP VOC AND SVOC RESULTS
AUGUST 2 AND 4, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Date Sampled	Lab Sample ID	Concentrations in mg/L																						
			Benzene	2-Butanone (MEK)	Carbon Tetrachloride	Chlorobenzene	Chloroform	1,2-Dichloroethane	1,1-Dichloroethene	Tetrachloroethene	Trichloroethene	Vinyl chloride	1,4-Dichlorobenzene	2,4-Dinitrotoluene	Hexachlorobenzene	Hexachlorobutadiene	Hexachloroethane	o-Cresol	m&P-Cresol	Nitrobenzene	Pentachlorophenol	Pyridine	2,4,5-Trichlorophenol	2,4,6-Trichlorophenol
P-6 (14-16)	8/2/11	11-15491	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.25	< 0.25	< 0.05	< 0.05
P-22 (10-12)	8/4/11	11-15798	< 0.1	< 0.2	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.04	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	**0.414**	< 0.25	< 0.05	< 0.05
TCLP Limit			**0.5**	**NA**	**0.5**	**100**	**6.0**	**0.5**	**0.7**	**0.7**	**0.5**	**0.2**	**7.5**	**0.13**	**0.13**	**0.5**	**3.0**	**200**	**200**	**2.0**	**100**	**5.0**	**400**	**2.0**

mg/L - milligrams per Liter

TABLE 4
DELINEATION SAMPLING
SOIL TCLP METALS / HAZARDOUS WASTE CONSTITUENTS RESULTS
AUGUST 2 AND 4, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Date Sampled	Lab Sample ID	Concentrations in mg/L																	
			Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Zinc	pH @ 25 degress C	Cyanide	Sulfide	Flashpoint
P-6 (14-16)	8/2/11	11-15491	< 0.1	< 0.01	**0.13**	< 0.004	< 0.005	< 0.01	< 0.02	< 0.01	< 0.002	< 0.05	< 0.01	< 0.05	< 0.05	**0.10**		<10	<10	**NF**
P-22 (10-12)	8/4/11	11-15798	< 0.1	< 0.01	**1.0**	< 0.004	< 0.005	< 0.01	**0.03**	**0.03**	< 0.002	< 0.05	< 0.01	< 0.05	< 0.05	**4.2**		<10	<10	**NF**
P-22 (10-12)	8/4/11	11-15798															**7.72**			
RCRA Limit																				**140 Deg F**

Concentrations in mg/kg
NF = No Flash at 212 degrees F

TABLE 5
DELINEATION SAMPLING
SOIL SVOC AND SPLP SVOC
AUGUST 2 - 3, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

Boring / MW / Sample ID	Depth (in feet)	Date Sampled	Lab Sample ID	Soil SVOC units in mg/kg (ppm), SPLP SVOC units in ug/L (ppb)																		
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a) anthracene	Benzo(a) pyrene	Benzo(b) fluoranthene	Benzo(g,h,i)perylene	Benzo(k) fluoranthene	Chrysene	Dibenzo(a,h) anthracene	Dibenzofuran	Fluoranthene	Fluorene	Indeno(1,2,3-cd) pyrene	2-Methylnaphthalene	Naphthalene	Pentachlorophenol	Phenanthrene	Pyrene
P-6 (12-14)	12-14	8/2/11	11-15514	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.36	< 0.55	< 0.33	< 0.36
P6 12-14 (SPLP)	12-14	8/2/11	5051333001	**302**	**11.1**	**26.6**	**6.7**	**2.6**	**2.7**	**0.84**	**3.8**	**6.8**	**0.48**	**107**	**44.8**	**141**	**0.86**	**141**	**1530**	**80.3**	**210**	**31.9**
P-10 (8-10)	8-10	8/2/11	11-15515	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.35	< 0.53	< 0.32	< 0.35
P10 8-10 (SPLP)	8-10	8/2/11	5051333002	**243**	**10**	**23.8**	**2.3**	**0.85**	**0.91**	**0.39**	**0.71**	**1.9**	**0.17**	**85.2**	**26.6**	**139**	**0.33**	**134**	**1400**	**5300**	**169**	**16.7**
P-15 (14-16)	14-16	8/3/11	11-15749	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	<0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.34	< 0.52	< 0.31	< 0.34
P15 14-16 (SPLP)	14-16	8/3/11	5051333003	<1.0	<1.0	**0.2**	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<10.0	<1.0	<1.0	<0.10	<1.0	**2.4**	<50.0	**1.9**	<1.0
P-21 (14-16)	14-16	8/3/11	11-15766	**20,610**	**268**	**9,950**	**1,545**	**739**	**1,003**	**137.9**	**454**	**4,300**	<100	**17,830**	**11,820**	**30,760**	**157**	**25,050**	**25,660**	**2,350**	**27,930**	**12,470**
P-21D (14-16)	14-16	8/3/11	11-15767	**16,670**	**265**	**11,880**	**1,406**	**558**	**648**	**137**	**410**	**1,709**	<120	**16,000**	**9,580**	**25,330**	**135.8**	**14,300**	**22,120**	**1,100**	**23,700**	**9,580**
P21 14-16 (SPLP)	14-16	8/3/11	5051333004	**876**	**33.2**	**97**	**11**	**4.7**	**5.3**	**1.7**	**4.2**	**8.9**	**0.94**	**575**	**101**	**422**	**1.8**	**841**	**10300**	**26300J**	**457**	**49.9**

mg/kg - milligrams per kilogram
ppm - parts per million
ug/L - micrograms per Liter
ppb - parts per billion

TABLE 6
AVERAGE SPLP SVOC RESULTS
FROM HIGH DOSE AMENDMENTS VS. IDCL IN GROUNDWATER
DELINEATION SAMPLING – AUGUST, 2011
FORMER COLUMBUS WOOD TREATING
53 LAFAYETTE AVENUE
COLUMBUS, INDIANA

SVOC	Sample 1	Sample 2	Sample 3	Average	Std. Dev.	IDCL-Groundwater
Acenaphthene	5.9	7.9	6.6	6.8	1.0	**6,100**
Acenaphthylene	1.4	1.8	1.1	1.4	0.4	**73**
Anthracene	4.1	5.1	3.5	4.2	0.8	**31,000**
Benzo(a)anthracene	0.35	0.38	0.46	0.40	0.06	**3.9**
Benzo(a)pyrene	0.28	0.48	0.36	0.37	0.10	**0.39**
Benzo(b)fluoranthene	0.24	0.18	0.28	0.23	0.05	**3.9**
Benzo(g,h,i)perylene	0.10	0.11	0.12	0.11	0.01	**NA**
Benzo(k)fluoranthene	0.18	0.21	0.24	0.21	0.03	**39**
Chrysene	0.51	0.49	0.56	0.52	0.04	**390**
Dibenzo(a,h)anthracene	0.10	0.11	0.11	0.11	0.01	**0.39**
Dibenzofuran	17.2	12.9	13.2	14.4	2.4	**200**
Fluoranthene	3.8	3.2	4.6	3.9	0.7	**4,100**
Fluorene	19.8	13.9	16.6	16.8	3.0	**4,100**
Indeno(1,2,3-cd)pyrene	0.11	0.16	0.13	0.13	0.03	**3.9**
2-Methylnaphthalene	7.0	9.8	4.4	7.1	2.7	**410**
Naphthalene	219	139	324	227	92.8	**2,000**
Pentachlorophenol	409	361	174	**315**	124.2	**24**
Phenanthrene	6.4	10.8	7.9	8.4	2.2	**310**
Pyrene	4.0	3.1	1.4	2.8	1.3	**3,100**
Σ SVOCs	699	571	560	609.9	77.8	

Concentrations in micrograms per Liter (ug/L) or parts per billion (ppb)

VOLUME ESTIMATES and DISPOSAL / TREATMENT COSTS

FMR COLUMBUS WOOD TREATING SITE

AUGUST, 2011, COLUMBUS, IN

Soil PCP > 54 ppm Estimated Total = 5,400 Tons	Quantity	Units	Unit Rate	Total
S/S Equipment Mobilization	1	Lump Sum	$15,000	$15,000
In-Situ Soil Solidification / Stabilization (16% Portland + 6% PAC)	6,000	Tons	$147	$884,400
Excavation, Transportation and Disposal	5,400	Tons	$817	$4,411,800
Backfill and compact from City backfill source	5,400	Tons	$5	$27,000
Soil > ICL-Migration Estimated Total = 6,000 Tons	**Quantity**	**Units**	**Unit Rate**	**Total**
In-Situ Soil Solidification / Stabilization (16% Portland & 4% PAC)	5,400	Tons	$106	$570,240
Mobilization Excavation Equipment	1	Lump Sump	$7,500	$7,500
Excavate, stage, load, haul, dispose of impacted soil	6,000	Tons	$37	$222,000
Haul and place self-compacting (pea gravel) in excavation	1,500	Tons	$9	$13,500
Haul and compact backfill from City source	4,500	Tons	$6	$27,000
Soil < ICL-Migration (Soil Overburden) Estimated Total = 4,300 Tons	**Quantity**	**Units**	**Unit Rate**	**Total**
Excavate and stockpile clean overburden soil	4,300	Tons	$2	$8,600
Place and compact to 95% proctor clean overburden soil from on-site	4,300	Tons	$5	$21,500
CONTINGENCY				10%
ASPHALT PARKING LOT	1	Lump Sump		$250,000
CONSULTING	1	Lump Sump		$200,000
REMEDIATION COST OPTION 1		In-situ S/S w/ Excavation/disposal of non-haz		$1,739,750
REMEDIATION COST OPTION 2		In-situ Soil Stabilization of all impacted soil		$2,099,714
REMEDIATION COST OPTION 3		Excavation, Transportation, and Disposal of all		$5,603,390

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Ave.

S 90°00'00" E
295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

P-16

P-13

MW-7DD

MW-7D

P-18

P-12

P-19

P-11

P-23

MW-4

P-22

Trees & Depression

213.26'(R)

S 00°22'18" W
142.33'

P-10

P-9

P-24

P-25

P-20

P-26

P-8

"J"

N 73°14'17" E

Gravel Area

P-5

P-7

P-6

P-21

P-4

P-3

P-2

20' U. ESMT

P-1

N 79°45'35" E

MW-2

"B"

Trees & Scrub

"A"

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

Power Pole

0 30

Slope

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 8/19/2011 SCALE: 1"=30'	DRAWING TITLE: Delineation Borings	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Street Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 10-024	FIGURE 1

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Ave.

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

213.26'(R)

S 00°22'18" W

142.33'

MW-1

<ICL-M

P-14

P-15

P-17

P-16

Trees & Depression

P-23

P-13

MW-7DD

MW-7D

P-18

P-12

P-19

P-11

P-10

P-9

P-24

P-25

P-20

P-8

P-26

"J"

N 73°14'17" E

Gravel Area

P-5

P-6

P-7

P-21

P-4

P-3

P-2

10' U. ESMT

N 79°45'35" E

P-1

MW-2

"B"

Trees & Scrub

"A"

P-19 (6-8)	< 0.57
P-19 (10-12)	232
P-19 (12-14)	3.43
P-19 (16-18)	4.03

P-18 (6-8)	1.99
P-18 (17-18)	< 5.00

P-11 (2-4)	1,650
P-11 (6-8)	72.2
P-11 (9-10)	< 6.30
P-11D (9-10)	246
P-11 (14-16)	< 6.20
P-11 (18-19)	13.2

P-24 (7-8)	< 1.74
P-24 (11-12)	679
P-24 (15-16)	< 19.3
P-24 (18-19)	< 19.3

P-9 (2-4)	< 0.52
P-9 (6-8)	< 0.68
P-9 (10-12)	< 0.56
P-9 (19-20)	484

P-10 (2-4)	14
P-10 (6-8)	70.4
P-10 (8-10)	< 0.53
P-10 (10-12)	< 0.58
P-10 (14-16)	1,040

P-20 (8-10)	57
P-20 (10-12)	< 0.62
P-20 (16-18)	< 0.60

P-21 (8-10)	< 0.60
P-21 (10-12)	< 0.68
P-21 (14-16)	2,350
P-21D (14-16)	1,100

P-3 (2-4)	< 0.55
P-3 (6-8)	< 0.53
P-3 (10-12)	< 0.56
P-3 (14-16)	3.26
P-3 (18-19)	< 0.62

P-4 (10-11)	< 0.67
P-4 (11-12)	4.83
P-4 (15-16)	80.2
P-4 (18-19)	0.58

P-6 (2-4)	< 186
P-6 (9-10)	17.5
P-6 (12-14)	< 0.55
P-6 (17.5-18.5)	< 0.55

P-2 (2-4)	2.21
P-2 (6-8)	< 0.54
P-2 (10-12)	< 0.62
P-2 (14-16)	< 0.57
P-2 (16-18)	< 0.56
P-2D (16-18)	< 5.60

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

PCP - Pentachlorophenol

Concentrations in mg/kg or ppm

<ICL-M Less than ICL-Migration to Groundwater

P-18 (6-8) 1.99 Probe # (Depth)/Conc. >ICL-Migration (0.66)

P-20 (8-10) 57 Probe # (Depth)/Conc. >ICL Direct (54.0)

Slope

0 30

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/18/2011

SCALE: 1"=30'

DRAWING TITLE: PCP in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Street, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 2

1st Street

Landscape

Asphalt Parking

Office

Grass

Lafayette Ave.

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

MW-9

213.26'(R)

S 00°22'18" W

142.33'

Trees & Depression

Trees & Scrub

Gravel Area

<ICL-M

P-14

P-15

P-17

P-16

P-13

MW-7DD

MW-7D

P-12

P-18

P-11

P-19

P-23

MW-4

P-22

P-24

P-25

P-9

P-10

P-20

P-8

P-26

P-5

P-7

P-6

P-21

P-4

P-3

P-2

MW-2

P-1

"A"

"B"

"J"

N 79°45'35" E

N 73°14'17" E

P-11 (2-4)	2,370
P-11 (6-8)	136
P-11 (9-10)	93.3
P-11D (9-10)	1,080
P-11 (14-16)	59.3
P-11 (18-19)	16.6

P-10 (2-4)	20.1
P-10 (6-8)	38
P-10 (8-10)	< 0.35
P-10 (10-12)	1.19
P-10 (14-16)	2,520

P-9 (2-4)	< 0.34
P-9 (6-8)	< 0.45
P-9 (10-12)	< 0.37
P-9 (19-20)	615

P-24 (7-8)	< 0.36
P-24 (11-12)	178
P-24 (15-16)	22.7
P-24 (18-19)	77.9

P-21 (8-10)	1.38
P-21 (10-12)	0.59
P-21 (14-16)	25,660
P-21D (14-16)	22,120

P-4 (10-11)	1.47
P-4 (11-12)	2.68
P-4 (15-16)	328
P-4 (18-19)	< 0.38

P-6 (2-4)	3,568
P-6 (9-10)	313
P-6 (12-14)	< 0.36
P-6 (17.5-18.5)	1.21

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

<ICL-M Less than ICL-Migration to Groundwater

P-24 (11-12) 178 Probe # (Depth)/Conc. > ICL-Migration (170)

Concentrations in mg/kg or ppm

0 30

Slope

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/19/2011

SCALE: 1"=30'

DRAWING TITLE: Naphthalene in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Street, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 3

1st Street

Landscape

Asphalt Parking

Office

Grass

Lafayette Ave.

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

<ICL-M

P-17

P-15

P-14

P-16

P-13

MW-7DD

MW-7D

P-12

P-18

P-11

P-19

P-10

P-9

P-20

P-8

P-5

Gravel Area

P-7

P-6

P-21

P-4

P-3

P-2

P-1

MW-2

"A"

"B"

"J"

213.26'(R)

S 00°22'18" W

142.33'

N 79°45'35" E

N 73°14'17" E

Trees & Depression

Trees & Scrub

10' U. ESMT

P-11 (2-4)	177
P-11 (6-8)	6.37
P-11 (9-10)	4.47
P-11D (9-10)	47.2
P-11 (14-16)	6.01
P-11 (18-19)	4.92

P-9 (2-4)	< 0.34
P-9 (6-8)	< 0.45
P-9 (10-12)	< 0.37
P-9 (19-20)	42.1

P-10 (2-4)	< 3.70
P-10 (6-8)	4.2
P-10 (8-10)	< 0.35
P-10 (10-12)	< 0.38
P-10 (14-16)	108

P-19 (6-8)	0.53
P-19 (10-12)	156
P-19 (12-14)	0.86
P-19 (16-18)	0.75

P-6 (2-4)	530
P-6 (9-10)	12.9
P-6 (12-14)	< 0.36
P-6 (17.5-18.5)	< 0.36

P-21 (8-10)	< 0.40
P-21 (10-12)	1.7
P-21 (14-16)	739
P-21D (14-16)	558

P-24 (7-8)	<0.36
P-24 (11-12)	177
P-24 (15-16)	< 4.00
P-24 (18-19)	7.22

P-26 (9-10)	17.2
P-26 (13-14)	98.1
P-26 (17-18)	0.77

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

<ICL-M Less than ICL-Migration to Groundwater

P-19 (10-12) 156 Probe # (Depth)/Conc. > ICL-Migration (16.0)

Concentrations in mg/kg or ppm

0 30

Slope

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/19/2011

SCALE: 1"=30'

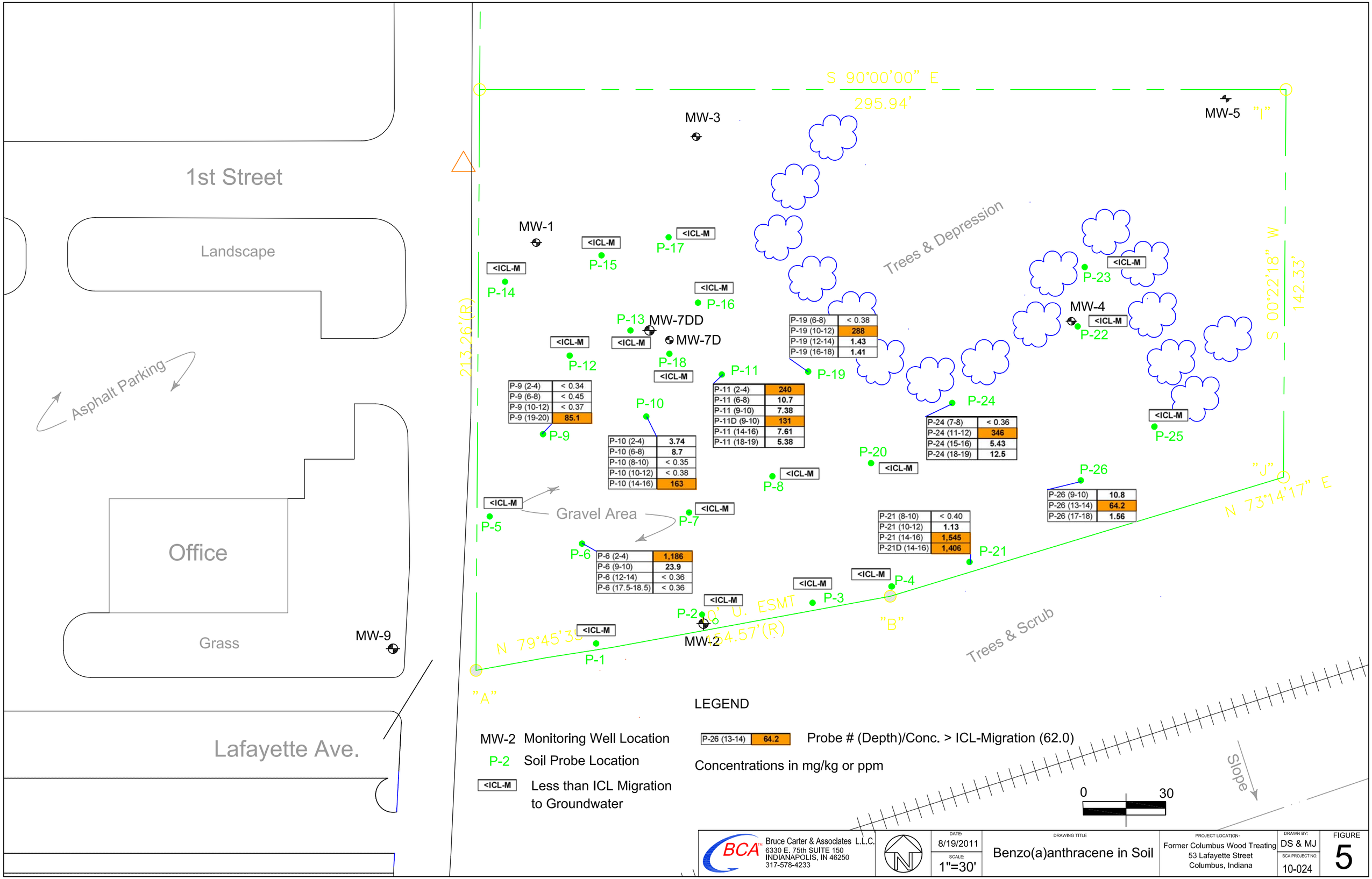
DRAWING TITLE: Benzo(a)pyrene in Soil

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Street, Columbus, Indiana

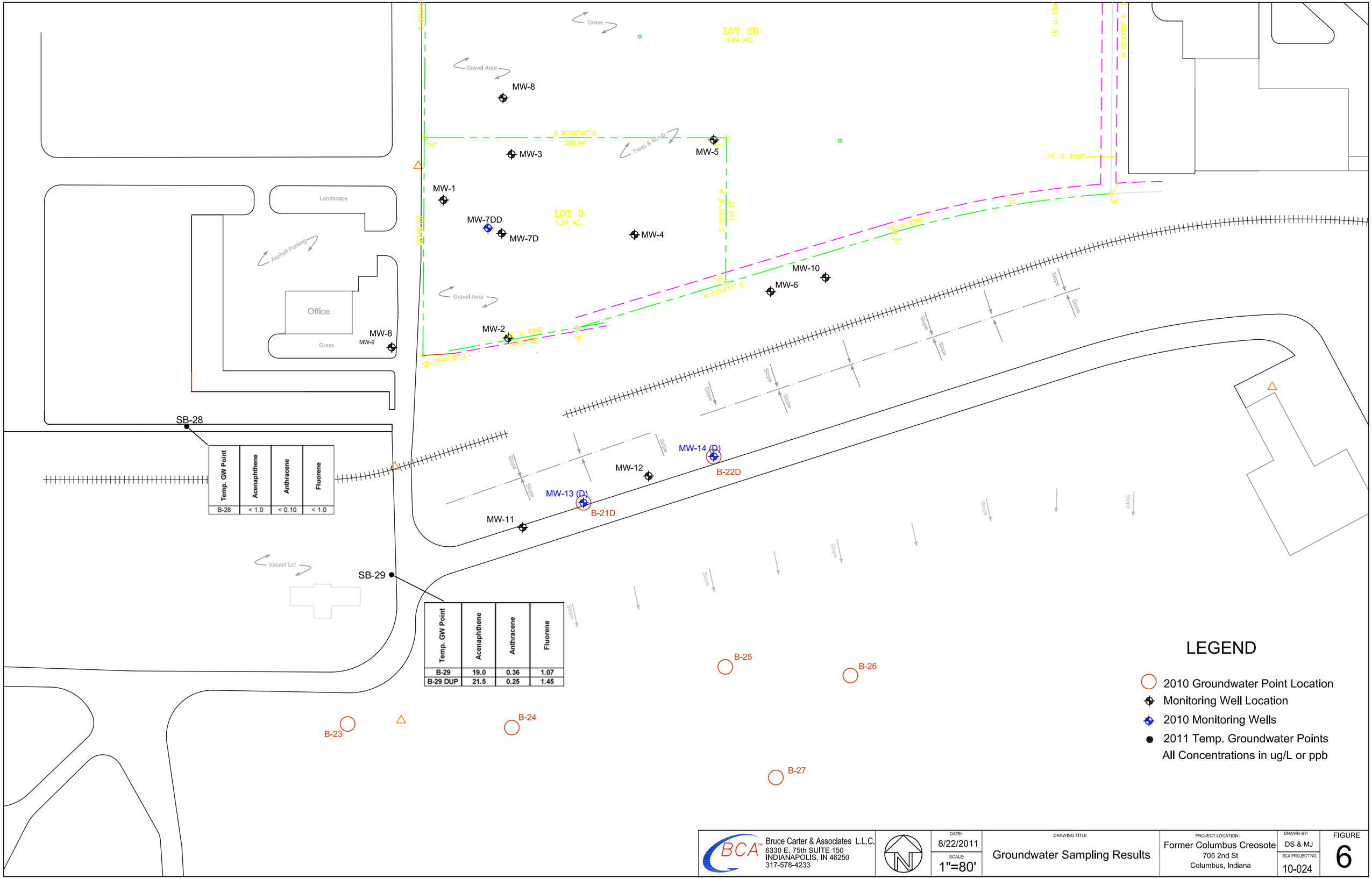
DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 4



BCA Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233		DATE: 8/19/2011 SCALE: 1"=30'	DRAWING TITLE: Benzo(a)anthracene in Soil	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Street Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 10-024	FIGURE 5



LEGEND

- 2010 Groundwater Point Location
- Monitoring Well Location
- 2010 Monitoring Wells
- 2011 Temp. Groundwater Points

All Concentrations in ug/L or ppb

Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/22/2011
SCALE: 1"=80'

DRAWING TITLE: Groundwater Sampling Results

PROJECT LOCATION: Former Columbus Creosote
705 2nd St
Columbus, Indiana

DRAWN BY: DS & MJ
BCA PROJECT NO. 10-024

FIGURE 6

1st Street

Landscape

Asphalt Parking

Office

Grass

Lafayette Ave.

S 90°00'00" E
295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-12

P-18

(2-14)

P-11

P-19

(8-18)

Trees & Depression

P-23

MW-4

P-22

S 00°22'18" W
142.33'

(4-20)

P-10

PCP > 54 mg/kg

(8-15)

P-24

P-9
(15-20)

P-25

P-20
(8-10)

P-26

P-8

"J"

N 73°14'17" E

Gravel Area

P-7

P-5

P-6

P-21
(14-19)

P-4
(12-19)

"B"

P-3

P-2

20' U. ESMT

254.57'(R)

Trees & Scrub

MW-2

N 79°45'35" E

P-1

"A"

MW-9

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-2 Probe Containing PCP > 54 ppm

Approximate Boundary of PCP > 54 mg/kg

(2-17) Approximate Depth Interval PCP > 54 ppm

Slope

0 30

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/19/2011

SCALE: 1"=30'

DRAWING TITLE: Approximate Boundary - PCP > 54 mg/kg

PROJECT LOCATION: Former Columbus Wood Treating
53 Lafayette Street
Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 7

1st Street

Landscape

Asphalt Parking

Office

Grass

Lafayette Ave.

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-12

P-18*

(0-2)

P-11

P-19

(8-10)

Trees & Depression

P-23 *

MW-4

P-22 *

S 00°22'18" W

142.33'

(0-8)

P-24

(0-4)

P-10

(12-15)

P-9

Soil Excavation

P-25

P-20

(0-8)

(2-9)

P-8

P-26

(4-14)

"J"

N 73°14'17" E

(12-14)

P-5

Refusal at 8 Feet

Gravel Area

P-7

(0-10)

P-6

(12-14)

P-21

(12-19)

P-3

P-4

(11-12)

(0-6)

P-2

20' U. ESMT

MW-2

N 79°45'35" E

P-1

"A"

Trees & Scrub

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-22* Excluded from Remediation Area due to Likely Potential Exposure Concentration (PEC)

P-2 Soil Probe Location Within Excavation or Treatment Area

------ Approximate Boundary of Soil > ICL-Migration

(0-4) Approximate Depth Interval of Soil > ICL-Migration (Not Including PCP > 54 ppm)

0 30

Slope

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/19/2011

SCALE: 1"=30'

DRAWING TITLE: Soil > ICL-Migration

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Street, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 8

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

Lafayette Ave.

S 90°00'00" E

295.94'

MW-3

MW-5

"I"

MW-1

P-17

P-15

P-14

213.26'(R)

P-16

P-13

MW-7DD

MW-7D

P-12

P-18*

P-11

Trees & Depression

P-23 *

MW-4

P-22 *

S 00°22'18" W

142.33'

P-19

(0-8)

(0-2)

P-10

(0-12)

P-9

P-24

P-25

P-20

(0-2)

P-8

P-26

(0-4)

"J"

N 73°14'17" E

(0-12)

P-5

Refusal at 8 Feet

Gravel Area

P-7

Clean Soil Overburden

P-6

P-21

(0-11)

(0-12)

P-4

(0-12)

P-3

P-2

20' U. ESMT

N 79°45'35" E

234.57'(R)

MW-2

Trees & Scrub

P-1

"A"

LEGEND

MW-2 Monitoring Well Location

P-2 Soil Probe Location

P-22* Exclude from Remediation Area Due to Likely Potential Exposure Concentration

P-2 Soil Probe Location Within Excavation or Treatment Area

------ Approximate Boundary of Clean Soil Overburden

(0-4) Approximate Depth Interval of Soil < ICL-Migration

0 30

Slope

BCA Bruce Carter & Associates L.L.C.
6330 E. 75th SUITE 150
INDIANAPOLIS, IN 46250
317-578-4233

DATE: 8/19/2011

SCALE: 1"=30'

DRAWING TITLE: Soil < ICL-Migration (Clean Soil Overburden)

PROJECT LOCATION: Former Columbus Wood Treating, 53 Lafayette Street, Columbus, Indiana

DRAWN BY: DS & MJ

BCA PROJECT NO. 10-024

FIGURE 9

Appendix F

Evaluation of solidification/stabilization (S/S) treatment of soil from the Former Columbus Wood Treating site, Columbus, Indiana

Daniel Cassidy
Associate Professor
Western Michigan University

PURPOSE

Soil at the Former Columbus Wood Treating site in Columbus, Indiana (hereinafter referred to as "the Site") has been impacted with semivolatile organic compounds (SVOCs), including pentachlorophenol (PCP) and polycyclic aromatic hydrocarbons (PAHs). Studies were conducted to evaluate the effectiveness of solidification/stabilization (S/S) of soil from the site.

TECHNOLOGY DESCRIPTION

Solidification and stabilization (S/S) involves the mixing of specialized additives or reagents with contaminated soils to reduce physically and/or chemically the solubility or mobility of contaminants in the soil (USEPA, 1997). A combination of Portland cement and Powdered Activated Carbon (PAC) were used in these studies, using a weight ratio of Portland cement to PAC of 5:1. The Portland cement ties up available water and solidifies the soil. This encapsulates the contaminants and reduces the permeability of the soil to infiltrating rainwater and/or groundwater, which reduces contaminant leaching (USEPA, 1998; USEPA, 2009). PAC was added to adsorb the organic contaminants, which also reduces their solubility and mobility (Hilber and Bucheli, 2010).

MATERIALS & METHODS

Processing of Soil Samples

Approximately 16 L of soil was received from the Site. All the soil was homogenized in a 40 L closed, overhead mixer for 4 hours. Six (6) different 10 g (approximately 5 mL) samples of the homogenized soil were taken for SPLP-SVOC analyses in order to establish baseline concentrations for all the treatment scenarios in Tier 1 and Tier 2 (if required). Then, 1.25 L sub-samples of the homogenized soil were taken for the treatment tests. The 1.25 L sub-samples of homogenized soil were placed in metal bowls, and the S/S amendments were added and mixed for 10 minutes with a metal spoon. Note, even the control was mixed, though nothing was added. After the 10 minute mixing period, the entire 1.25 L samples were packed into a metal cylinder with a radius of 4 cm and a height of 25 cm (total volume=1250 mL, or 1.25 L). The top of this cylinder was closed and allowed to cure or set for 10 days. Longer cure times may improve results somewhat, but usually Portland cement cures within a few days (USEPA, 2009).

After 10 days cure time, the soil from the cylinder was removed and subjected to a test of unconfined compressive strength (UCS). After the UCS testing, 3 different 10 g sub-samples were taken for post-treatment SPLP-SVOC analyses. Then the remaining soil was again packed into the same cylinder, which was then used as a falling head permeameter to measure hydraulic conductivity.

The following **three (3) treatment scenarios** were tested in the Tier 1 studies:

1) **Control**-nothing added,
2) **Low Dose**-5% Portland cement and 1% powdered activated carbon,
3) **High Dose**-20% Portland cement and 5% powdered activated carbon.

Unconfined Compressive Strength (UCS)

UCS of the soils was measured using ASTM D1633 – "Standard Test Methods for Compressive Strength of Molded Soil-Cement Cylinders". The UCS is defined as the compressive stress at which an unconfined cylindrical specimen of soil will fail in a simple compression test. A Soiltest^{TM} unconfined compression strength tester was used to measure the UCS.

SPLP-SVOCs

SVOCs were measured in extract from Synthetic Precipitation Leaching Procedure (SPLP) tests, which were conducted according to EPA Method 1312 (US EPA, 1998). This method provides a realistic assessment of contaminant mobility under actual field conditions (i.e. what happens when precipitation percolates through the soil). The soil is extracted with an amount of extraction fluid equal to 20 times the dry weight of the solid phase. Ten (10) g samples of soil (dry weight) were extracted with 200 mL (200 g) of extraction fluid. Nineteen (19) individual SVOCs were measured. **Table 1** lists the 19 individual SVOCs quantified in the SPLP extract, and the method detection limit (MDL) for each.

Falling Head Permeameter (FHP)

The metal cylinder was packed with soil after the UCS test and sub-samples were taken for the SPLP-SVOC analyses. This packed cylinder was then used to test hydraulic conductivity (K) using a Falling Head Permeameter (FHP) apparatus, as described in Fetter (2001).

Table 1. The nineteen (19) individual SVOCs quantified in the SPLP extract.

SVOC	Method Detection Limit (µg/L)
Acenaphthene	<1.0
Acenaphthylene	<1.0
Anthracene	<0.10
Benzo(a)anthracene	<0.10
Benzo(a)pyrene	<0.10
Benzo(b)fluoranthene	<0.10
Benzo(g,h,i)perylene	<0.10
Benzo(k)fluoranthene	<0.10
Chrysene	<0.10
Dibenzo(a,h)anthracene	<0.10
Dibenzofuran	<5.0
Fluoranthene	<1.0
Fluorene	<1.0
Indeno(1,2,3-cd)pyrene	<0.10
2-Methylnaphthalene	<0.10
Naphthalene	<0.10
Pentachlorophenol	<0.10
Phenanthrene	<0.10
Pyrene	<0.10

RESULTS & DISCUSSION

Unconfined Compressive Strength (UCS)

The UCS of the three treatment scenarios in the Tier 1 studies are listed in **Table 2**. A value of UCS greater than 50 psi is considered acceptable for most cement-based S/S applications (USEPA, 2009). The UCS of the un-amended soil (Control) was 2.8 psi. The UCS results in **Table 2** show that the Low Dose did not reach this criterion (8.6 psi), but that the High Dose did (465.5 psi). These results clearly show that the High Dose of the amendments was achieved the desired UCS levels imposed by the USEPA. However, the results also show that the Low Dose used is not able to meet the expected UCS criteria. The UCS results suggest that Tier 2 studies should be conducted to evaluate more closely the effect of addition of Portland cement and PAC on the soil from the Site. For example, it is likely that a dose of amendments lower than that used in the High Dose would achieve the 50 psi criterion, which would reduce treatment costs.

Table 2. Results for unconfined compressive strength.

Parameter	Control	Low Dose	High Dose
Unconfined Compressive Strength (psi)	2.8	8.6	465.5

SPLP-SVOCs

Table 3 lists the average and standard deviation from the six (6) analyses of SPLP-SVOCs done on the homogenized soil. The individual SPLP-SVOC results for each of the six (6) samples are provided in Appendix A. It is important to note that the standard deviation for all the SVOCs is within 10% of the average concentration value. This clearly shows that the soils samples received were well-homogenized before the treatment scenarios were applied. These baseline SPLP-SVOC results will be applicable to the Tier 2 studies, should they proceed.

Table 3. Baseline results for the six (6) samples taken from the homogenized soil.

SVOCs	Average (µg/L)	Std. Dev.
Acenaphthene	633.7	56.1
Acenaphthylene	25.8	2.3
Anthracene	58.5	4.8
Benzo(a)anthracene	6.1	0.45
Benzo(a)pyrene	5.6	0.40
Benzo(b)fluoranthene	3.8	0.31
Benzo(g,h,i)perylene	1.4	0.12
Benzo(k)fluoranthene	4.4	0.31
Chrysene	8.6	0.70
Dibenzo(a,h)anthracene	0.74	0.07
Dibenzofuran	339.7	28.3
Fluoranthene	73.8	6.5
Fluorene	299.0	28.0
Indeno(1,2,3-cd)pyrene	1.1	0.11
2-Methylnaphthalene	404.8	31.8
Naphthalene	10345.0	893.0
Pentachlorophenol	13062.0	1296.1
Phenanthrene	315.0	31.1
Pyrene	45.6	4.27
Σ SVOCs	25634.6	1998.3

Table 4 lists the average SPLP-SVOC concentrations and the calculated percent removals achieved with the three (3) reactions scenarios (Control, Low Dose, and High Dose). The individual SPLP-SVOC results for each of the three (3) samples taken from the Control, the Low Dose, and the High Dose are provided in Appendix B, Appendix C, Appendix D, respectively. It is clear from **Table 4** that the Control showed no significant removal of the SVOCs quantified. This is to be expected, since the Control reaceived no amendments. In contrast, the Low Dose achieved a percent removal of SPLP-SVOCs between approximately 9% and 17%, and the High Dose achieved a percent removal between approximately 85% and 99%. The results in **Table 4** demonstrate that a suitable

dose of Portland cement and PAC can significantly reduce the leachability and mobility of the SVOC contaminants in the soil at the Site. The Low Dose used was not nearly as effective as the High Dose. These results suggest that Tier 2 studies should be conducted to evaluate more closely the effect of addition of Portland cement and PAC on the reduction in the leachability of SPLP-SVOCs.

Table 4. List of the average concentrations of SPLP-SVOC and the percent removal achieved for the three (3) reactions scenarios tested (i.e., Control, Low Dose, and High Dose).

SVOCs	Conc.-Control (µg/L)	% Removal Control	Conc.-Low Dose (µg/L)	% Removal Low Dose	High Dose Conc. (µg/L)	% Removal High Dose
Acenaphthene	645.7	-1.9%	561.3	11.4%	6.8	98.9%
Acenaphthylene	26.2	-1.4%	22.7	11.9%	1.4	94.4%
Anthracene	61.8	-5.8%	49.4	15.5%	4.2	92.8%
Benzo(a)anthracene	6.4	-5.2%	5.2	14.5%	0.40	93.5%
Benzo(a)pyrene	5.4	3.3%	5.1	9.2%	0.37	93.4%
Benzo(b)fluoranthene	3.8	-0.4%	3.2	16.2%	0.23	93.9%
Benzo(g,h,i)perylene	1.3	8.2%	1.2	15.3%	0.11	92.2%
Benzo(k)fluoranthene	4.6	-4.5%	3.6	17.4%	0.21	95.2%
Chrysene	8.0	6.4%	7.2	16.5%	0.52	93.9%
Dibenzo(a,h)anthracene	0.7	6.8%	0.6	16.3%	0.11	85.5%
Dibenzofuran	351.7	-3.5%	299.7	11.8%	14.4	95.8%
Fluoranthene	76.5	-3.6%	62.9	14.7%	3.9	94.8%
Fluorene	259.3	13.3%	287.7	3.8%	16.8	94.4%
Indeno(1,2,3-cd)pyrene	1.0	8.8%	1.0	11.8%	0.13	88.2%
2-Methylnaphthalene	411.0	-1.5%	348.3	14.0%	7.1	98.3%
Naphthalene	10445.7	-1.0%	9097.3	12.1%	227.3	97.8%
Pentachlorophenol	13253.0	-1.5%	11352.7	13.1%	314.7	97.6%
Phenanthrene	328.3	-4.2%	278.0	11.7%	8.4	97.3%
Pyrene	47.0	-3.1%	40.3	11.7%	2.8	93.8%
Σ SVOCs	25937.5	-1.2%	22330.0	12.9%	609.9	97.6%

Table 5 lists the results for hydraulic conductivity (K) for the three (3) treatment scenarios tested in the Tier 1 studies. The typical specification for K after S/S treatment is that it should be less than $1x10^{-6}$ cm/s (USEPA, 2009). The K of the un-amended soil (Control) was $6.46x10^{-4}$ cm/s. While the Low Dose decreased the value of K relative to the Control, it only resulted in a value of $4.43x10^{-5}$ cm/s, which does not meet the USEPA specification. However, the High Dose of amendments did reduce the K value to $2.72x10^{-7}$ cm/s, which far exceeded the specifications for S/S treated soils. The results for hydraulic conductivity are consistent with the results for UCS and SPLP-SVOCs, in that the difference in performance between the Low Dose and High Dose was significant. Tier 2 studies should focus on finding the minimum dose of amendments required to meet the specifications.

Table 5. Hydraulic conductivity (K) for the three (3) treatment scenarios tested using a falling-head permeameter (FHP).

Parameter	Control	Low Dose	High Dose
Hydraulic Conductivity (cm/s)	6.46×10^{-4}	4.43×10^{-5}	2.72×10^{-7}

SUMMARY & CONCLUSIONS

The results listed above for unconfined compressive strength (UCS), SPLP-SVOCs, and for Hydraulic Conductivity (K) for the three (3) treatment scenarios tested consistently demonstrate that:

1) The High Dose of Portland cement and PAC met or exceeded the specifications for S/S stabilized soil, and
2) The Low Dose of Portland cement and PAC did not meet the expected criteria for S/S stabilized soil.

The results from the Tier 1 studies clearly show that S/S technology using Portland cement and PAC is a feasible remedial option for the Former Columbus Wood Treating site. The results suggest that a dose lower than the High Dose used in these Tier 1 studies would be effective. Tier 2 studies should be conducted to determine an optimal dose of both Portland cement and PAC that will achieve the USEPA specifications for S/S. The ratio of Portland cement to PAC should be varied in the Tier 2 studies to determine the optimal doses of both amendments that sufficiently reduce values of SPLP-SVOC and hydraulic conductivity, and sufficiently increase the unconfined compressive strength (UCS) of the soil at the Site.

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APPENDIX A-Concentrations (in µg/L) for all six (6) samples taken for baseline SPLP-SVOC analyses.

SVOC	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 6	Average	Std. Dev.
Acenaphthene	597	709	639	631.0	539.0	687	633.7	56.1
Acenaphthylene	23.4	26.9	25.2	22.8	29.3	27.2	25.8	2.3
Anthracene	61.2	55.3	52.8	59.4	67.2	54.8	58.5	4.8
Benzo(a)anthracene	6.4	6.8	5.7	5.5	6.3	5.8	6.1	0.45
Benzo(a)pyrene	4.9	5.6	6.2	5.8	5.4	5.8	5.6	0.40
Benzo(b)fluoranthene	3.6	3.9	4.2	3.4	3.6	4.2	3.8	0.31
Benzo(g,h,i)perylene	1.2	1.4	1.4	1.5	1.4	1.6	1.4	0.12
Benzo(k)fluoranthene	4.2	4.4	4.5	4.9	3.9	4.5	4.4	0.31
Chrysene	9.1	7.9	7.8	8.3	8.6	9.8	8.6	0.70
Dibenzo(a,h)anthracene	0.68	0.62	0.79	0.8	0.7	0.78	0.74	0.07
Dibenzofuran	352	319	297	376.0	369.0	325	339.7	28.3
Fluoranthene	68.2	81.3	75.0	71.4	82.3	64.6	73.8	6.5
Fluorene	252	324	331	274.0	299.0	314	299.0	28.0
Indeno(1,2,3-cd)pyrene	1.0	1.2	1.1	1.3	1.0	1.2	1.1	0.11
2-Methylnaphthalene	417	396	338	429.0	427.0	422	404.8	31.8
Naphthalene	9,762	9,373	12,012	10,928.0	10,262.0	9,733	10,345.0	893.0
Pentachlorophenol	10,977	12,567	14,590	14,327.0	12,081.0	13,830	13,062.0	1,296.1
Phenanthrene	276	326	319	279.0	322.0	368	315.0	31.1
Pyrene	43.2	52.7	49.4	39.7	43.8	44.9	45.6	4.27
Σ SVOCs	22,860	24,262	28,760	27,468.8	24,552.5	25,904	25,634.6	1,998.3

APPENDIX B- Concentrations (in µg/L) for the three (3) analyses taken to measure SPLP-SVOC for the Control scenario.

SVOC	Sample 1	Sample 2	Sample 3	Average	Std. Dev.
Acenaphthene	713	662	562	645.7	76.8
Acenaphthylene	27.2	23.9	27.4	26.2	2.0
Anthracene	59.6	53.9	72.0	61.8	9.3
Benzo(a)anthracene	5.9	6.1	7.2	6.4	0.70
Benzo(a)pyrene	4.7	5.6	6.0	5.4	0.67
Benzo(b)fluoranthene	3.4	4.2	3.9	3.8	0.40
Benzo(g,h,i)perylene	1.0	2.1	0.8	1.3	0.70
Benzo(k)fluoranthene	4.0	4.7	5.1	4.6	0.56
Chrysene	7.6	9.1	7.4	8.0	0.93
Dibenzo(a,h)anthracene	0.63	0.69	0.74	0.7	0.06
Dibenzofuran	404	279	372	351.7	64.9
Fluoranthene	73.8	85.4	70.2	76.5	7.9
Fluorene	263	229	286	259.3	28.7
Indeno(1,2,3-cd)pyrene	1.2	1.0	0.9	1.0	0.15
2-Methylnaphthalene	367	422	444	411.0	39.7
Naphthalene	10,548	9,277	11,512	10,445.7	1,121.0
Pentachlorophenol	11,325	12,773	15,661	13,253.0	2,207.5
Phenanthrene	293	362	330	328.3	34.5
Pyrene	41.9	47.2	52.0	47.0	5.1
Σ SVOCs	24,144	24,248	29,421	2,5937.5	3,016.9

APPENDIX C- Concentrations (in µg/L) for the three (3) analyses taken to measure SPLP-SVOC for the Low Dose scenario.

SVOC	Sample 1	Sample 2	Sample 3	Average	Std. Dev.
Acenaphthene	531	529	624	561.3	54.3
Acenaphthylene	20.8	24.8	22.6	22.7	2.0
Anthracene	47.6	58.2	42.3	49.4	8.1
Benzo(a)anthracene	5.0	5.2	5.4	5.2	0.20
Benzo(a)pyrene	4.2	6.2	4.9	5.1	1.01
Benzo(b)fluoranthene	3.1	3.6	2.9	3.2	0.36
Benzo(g,h,i)perylene	0.8	1.7	1.1	1.2	0.46
Benzo(k)fluoranthene	3.7	2.9	4.3	3.6	0.70
Chrysene	6.1	7.8	7.6	7.2	0.93
Dibenzo(a,h)anthracene	0.63	0.54	0.68	0.6	0.07
Dibenzofuran	258	339	302	299.7	40.6
Fluoranthene	71.1	57.2	60.5	62.9	7.3
Fluorene	261	298	304	287.7	23.3
Indeno(1,2,3-cd)pyrene	1.2	1.0	1.1	1.1	0.10
2-Methylnaphthalene	304	379	362	348.3	39.3
Naphthalene	9,245	7,026	11,021	9,097.3	2,001.6
Pentachlorophenol	9,789	11,870	12,399	11,352.7	1,379.8
Phenanthrene	228	309	297	278.0	43.7
Pyrene	33.2	40.6	47.1	40.3	7.0
Σ SVOCs	20,813	20,960	25,509	22427.6	2670.0

APPENDIX D- Concentrations (in µg/L) Results for the three (3) analyses taken to measure SPLP-SVOC for the High Dose scenario.

SVOC	Sample 1	Sample 2	Sample 3	Average	Std. Dev.
Acenaphthene	5.9	7.9	6.6	6.8	1.0
Acenaphthylene	1.4	1.8	1.1	1.4	0.4
Anthracene	4.1	5.1	3.5	4.2	0.8
Benzo(a)anthracene	0.35	0.38	0.46	0.40	0.06
Benzo(a)pyrene	0.28	0.48	0.36	0.37	0.10
Benzo(b)fluoranthene	0.24	0.18	0.28	0.23	0.05
Benzo(g,h,i)perylene	0.10	0.11	0.12	0.11	0.01
Benzo(k)fluoranthene	0.18	0.21	0.24	0.21	0.03
Chrysene	0.51	0.49	0.56	0.52	0.04
Dibenzo(a,h)anthracene	0.10	0.11	0.11	0.11	0.01
Dibenzofuran	17.2	12.9	13.2	14.4	2.4
Fluoranthene	3.8	3.2	4.6	3.9	0.7
Fluorene	19.8	13.9	16.6	16.8	3.0
Indeno(1,2,3-cd)pyrene	0.11	0.16	0.13	0.13	0.03
2-Methylnaphthalene	7.0	9.8	4.4	7.1	2.7
Naphthalene	219	139	324	227	92.8
Pentachlorophenol	409	361	174	315	124.2
Phenanthrene	6.4	10.8	7.9	8.4	2.2
Pyrene	4.0	3.1	1.4	2.8	1.3
Σ SVOCs	699	571	560	609.9	77.8

Appendix G

LANG TOOL CO.
2520 Glidden Rd., Beaverton, Michigan 48612
Phone: (989) 435-9864
Fax: (989) 435-4311
Email: info@langtool.com

SOIL MIXING SPECIALIST - NATIONWIDE AVAILABILITY

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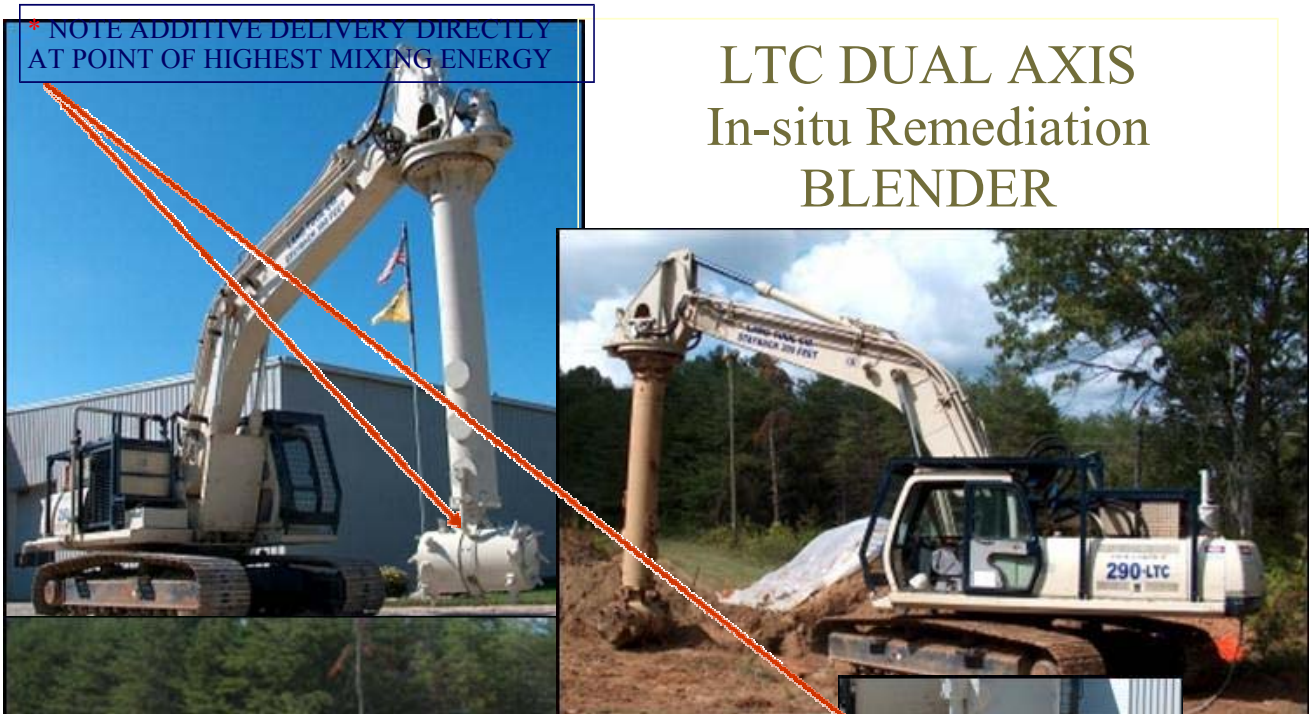
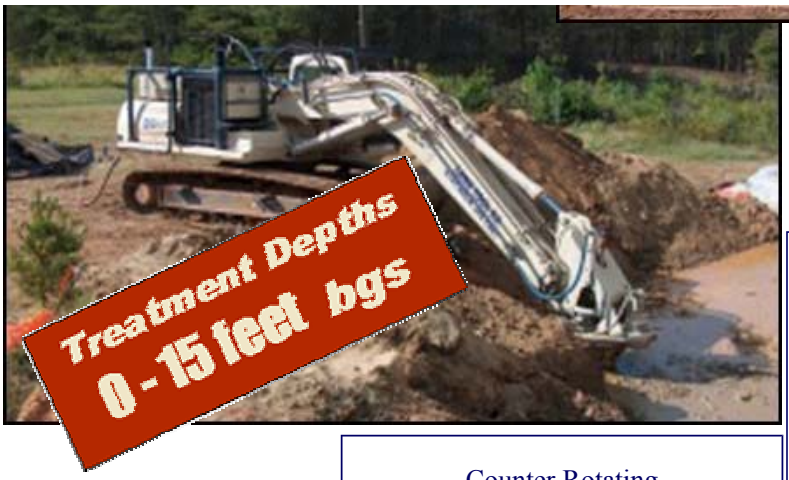
Remediation Services

As a manufacturer, LANG TOOL CO. has earned a reputation for producing the most productive and durable soil mixing equipment on the market. LTC equipment has been used on major projects in the United States and South America. From Buenos Aires to the Aleutian Islands of Alaska, Lang Tool Co. equipment has delivered consistent high production and rugged durability for our customers. In order to better serve our customers, Lang Tool Co. has expanded our services to include soil mixing contracting and subcontracting. As a contractor, LTC is earning a reputation for delivering high quality work on time and under budget. LTC has a sizable fleet of soil mixing equipment along with experienced supervisors and crew members.





VERTICAL AXIS
Torque - 68,000 lb/ft
Speed - 6 rpm
Swing Diameter - 60”

Treatment Depth
Capability - 0-15’ bgs
Volume of Soil Treated
15’ deep Cycle - 10.9cy
Additive Delivery Plumbing –
2 1/2” SS Pipe

Download PowerPoint Demo

Counter Rotating
Horizontal Axis Drums
Horizontal Axis Speed 78 rpm
Drum Diameter to Bit Tips - 40”
Total Torque Output - 26,000 lb/ft

In addition to the Dual Axis Blender we have several 30 and 40 ton LTC tool carriers equipped with conventional LTC Deep Digger Blenders.

LTC DEEP DIGGER

LTC Deep Digger Blender Specifications

290-LTC

210-LTC

Lang Tool Co. has additive mixing and pumping equipment for solidification/stabilization, chemical oxidation and biological treatments.

LTC Additive Equipment

All Lang Tool Co. additive delivery systems feature:
-Accurately metered additive delivery
-Computerized instrumentation of the quantity and rate of delivery
-The ability to adjust the rate of delivery and the mixture ratio to match changing job site conditions

On the job with LTC: CHEMICAL OXIDATION

Bay Area California Project 2008

Soil Volume:	5,000 cubic yards
Contaminate:	Petroleum Products
Treatment Depth:	15 feet below ground surface
Additive:	RegenOx & ORC
Completion Time:	10 working days

LTC EQUIPMENT:
290-LTC Tool Carrier equipped with Dual Axis Blender
LTC Chemical Oxidation Mixing Truck
GPS Site Layout Equipment

On the job with LTC: BIOLOGICAL TREATMENT

Destiny USA, Syracuse, NY 2007

Soil Volume:	40,000 cubic yards
Contaminate:	Petroleum Products
Treatment Depth:	5 feet below ground surface
Additive:	BioSolve & Fertilizer
Completion Time:	15 working days

LTC Equipment:
290-LTC Tool Carrier equipped w/Deep Digger Blender
210-LTC Tool Carrier equipped w/Deep Digger Blender
LTC Bio Amendment Delivery Truck - GPS Layout Equipment

On the job with LTC: CEMENT STABILAZATION

Central Illinois Project 2007

Soil Volume:	2,500 cubic yards
Contaminate:	Cadmium
Treatment Depth:	5 feet below ground surface
Additive:	Portland Cement
Completion Time:	5 working days

LTC Equipment:
290-LTC Tool Carrier equipped w/Deep Digger Blender
LTC Slurry Mixing Truck & Putzmeister TK50 Grout Pump
800 cubic foot Horizontal Silo - GPS Layout Equipment

In addition to N
soil mixing co
Co. has a large fleet of land clearing equipment and crews with Hazwhopper certification. For further information:
http://www.langlandclearing.com/

- List of Projects in .PDF format (90KB)
  Download Adobe Reader HERE
- 290-LTC specifications
- Deep Digger In-situ Blender Specifications
- LTC Slurry Mixing Truck Specifications
- Dual Axis In-Situ Blender Specifications
- Bio Additive Truck Specifications

Lang Tool Co. custom designed and prepared two of these 375 CAT excavators for the NY-NJ Harbor dredging project. They successfully treated millions of cubic yards of dredge spoils.

LANG TOOL CO.
2520 GLIDDEN ROAD, BEAVERTON, MI 48612
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Appendix H

ADDENDUM TO:

QUALITY ASSURANCE PROJECT PLAN
FORMER COLUMBUS WOOD TREATING PLANT
53 LAFAYETTE STREET
COLUMBUS, INDIANA

September 20, 2011
BCA Project # 7893/11-230

NOTE: This addendum includes only replacement pages to the approved QAPP accompanying the original Remediation Work Plan dated January, 2011.

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INTRODUCTION

On behalf of the Columbus Redevelopment Commission (CRC), this Quality Assurance Project Plan (QAPP) was prepared by Bruce Carter Associates, LLC (BCA) for the Former Columbus Wood Treating Plant. The QAPP was developed following the guidance presented in the United States Environmental Protection Agency (U.S. EPA) document QA/R-5 *Instructions on the Preparation of a Superfund Division Quality Assurance Project Plan*, dated June 2000. The Indiana Department of Environmental Management (IDEM) requires that all environmental monitoring and measurement efforts participate in a centrally managed quality assurance (QA) program. Any party generating data under this program has the responsibility to implement minimum procedures to assure that the precision, accuracy, completeness, and representativeness of its data are known and documented. To ensure the responsibility is met uniformly, each Party must prepare a written Quality Assurance Project Plan (QAPP) covering each project it is to perform. This QAPP presents the organization, objectives, functional activities and specific quality assurance (QA) and quality control (QC) activities associated with the sampling for the site. This QAPP also describes the specific protocols which will be followed for sampling, sample handling and storage, chain-of-custody, and laboratory (and field) analysis. All QA/QC procedures will be in accordance with applicable professional technical standards, IDEM requirements, government regulations and guidelines, and specific project goals and requirements. This QAPP is prepared by BCA in accordance with IDEM QAPP guidance documents.

ACRONYM LIST

ACM – Asbestos Containing Material

AHERA – Asbestos Hazard Emergency Response Act

ASTs – Aboveground Storage Tanks

ASTM – American Society for Testing and Materials

BCA – Bruce Carter Associates, LLC

CFR – Code of Federal Regulations

CNS – Covenant Not to Sue

COC – Chain of Custody

DI – Deionized

DQOs – Data Quality Objectives

DRO – Diesel-Range Organic Compounds

ERO – Extended-Range Organic Compounds

GRO – Gasoline-Range Organic Compounds

HASP – Health and Safety Plan

HUD – U.S. Department of Housing and Urban Development

IBP – Indiana Brownfields Program

IDEM – Indiana Department of Environmental Management

IFA – Indiana Finance Authority

LCSs – Laboratory Control Samples

MDLs – Method Detection Limits

MS/MSD – Matrix Spike/Matrix Spike Duplicate

O&M – Operation and Maintenance

OSHA – Occupational Safety and Health Administration

PARCCS – Precision, Accuracy, Representativeness, Completeness, Comparability, and Sensitivity

PCBs – Polychlorinated Biphenyls

PE – Performance Evaluation

PID – Photoionization Detector

PPE – Personal Protective Equipment

QA – Quality Assurance

QAPP – Quality Assurance Project Plan

QA/QC – Quality Assurance/Quality Control

QC – Quality Control

QLs – Quantitation Limits

RISC – Risk-Integrated System of Cleanup

RLF – Revolving Loan Fund

RPD – Relative Percent Difference

RSD – Relative Standard Deviation

RWP – Remediation Work Plan

SAP – Sampling and Analysis Plan

SRF – State Revolving Fund

SOPs – Standard Operating Procedures

SVOCs – Semivolatile Organic Compounds

TPH – Total Petroleum Hydrocarbons

U.S. EPA – United States Environmental Protection Agency

USTs – Underground Storage Tanks

VRP – Voluntary Remediation Program

VOCs – Volatile Organic Compounds

1.0 PROJECT MANAGEMENT

The purpose of this document is to describe the personnel, procedures, and methods for ensuring the quality, accuracy, and precision of data associated with the Former Columbus Wood Treating Plant. The Remediation Project is funded by the Columbus Redevelopment Commission through loans from the Indiana Finance Authority (IFA) and others. Following the procedures outlined in this Quality Assurance Project Plan (QAPP) will ensure that the project data meet Indiana Department of Environmental Management (IDEM) and Indiana Brownfield Program (IBP) standards.

1.1 Project Organization and Responsibility

Figure 1 presents the organizational structure for the planned work at the Former Columbus Wood Treating Plant. All lines of communication, management activities, and technical direction within this project team will follow this organization arrangement. Any directions or communications from the IBP will be given to the Columbus Brownfields Coordinator. The Brownfield Coordinator will subsequently communicate directions to Bruce Carter Associates, LLC (BCA) project manager. The IBP project manager will be notified of all changes in personnel.

Responsibilities of key project personnel are outlined below.

IDEM/IBP Project Manager

1. Direct, review, and approve QAPP and RWP.
2. Provide technical consultation services to the Brownfield Coordinator, and BCA project manager.
3. Review and approve changes to the RWP.
4. Review all final reports.

City of Columbus Brownfield Coordinator

1. Direct project activities.
2. Responsible for review of project deliverables, development of project planning, and the overview of project strategies.
3. Review site reports for consistency with objectives stated in work plans.
4. Provide final signature on all disbursement claims.

BCA Project Manager

1. Responsible for planning, coordinating, monitoring, and evaluating of field sampling.
2. Resolve technical problems.
3. Discuss and review with team members analytical results prior to completion of reports.
4. Responsible for environmental reports and documents.

BCA Quality Assurance Manager

1. Oversee assessment activities to ensure that sampling methodology, sample preservation methods, and COC procedures are being followed.
2. Assist in any QA issues with field or laboratory questions, as needed.
3. Maintain a record of samples submitted to the laboratory, the analyses being performed on each sample, the final analytical results, and data validation reports.
4. Conducts Data Assessment.

BCA Field Team

1. Be responsible for oversight of field activities and ensure that procedures for the field activities related to the QAPP are executed and documented properly.
2. Submit data generated during field assessment to the data manager.
3. Procuring, coordinating and qualifying all subcontractors.
4. Before sampling, meet with project manager to discuss and establish sampling purposes, sampling methodology, number of samples, size of samples, sample preservation methods, COC requirements, analyses required, and which samples will be duplicated in the field.
5. Be responsible for collection of equipment needed for delineation or closure sampling work, which would include personal protective equipment (PPE), sampling equipment, sample containers and coolers, water-level meters, monitoring devices, and any other equipment deemed necessary.
6. Conduct sampling or oversee drilling and soil boring work to ensure that proper procedures are followed.
7. Monitor hazardous conditions while conducting field operations.
8. Submit COC records and field paperwork to field team leader.

Laboratory Project Manager

1. Responsible for samples submitted to Laboratory, including those released to a subcontracted laboratory.
2. Responsible for summarizing quality assurance/quality control (QA/QC) requirements for the project, including those samples analyzed by subcontracted laboratories.
3. Maintain laboratory schedule and ensure that technical requirements are understood by laboratory personnel.
4. Provide technical guidance to project manager.
5. Ensure accuracy of the laboratory data.

Laboratory QA Manager

1. Responsible for evaluating adherence to policies and ensuring the systems are in place to provide QA/QC as defined in the QAPP.
2. Initiate and oversee audits of corrective action procedures.
3. Perform data reviews.
4. Maintain documentation of training.

Ms. Lynette Schrowe is the IBP Project Manager. Mr. Ed Curtin is the Columbus Brownfields Coordinator for this project.

Mr. Mark James will serve as the BCA project manager. John Kilmer will serve as the BCA QA manager. BCA field team leader for the excavation soil sampling will be Mr. Mark James. Other supporting staff from BCA may be assigned on an as-needed basis.

All site personnel will be trained as mandated by the Occupational Safety and Health Administration (OSHA) Act regulations (29 Code of Federal Regulations [CFR] 1910.120). Additionally, all site personnel will be properly trained in the procedures for collecting, labeling, packaging, and shipping of liquid and solid environmental samples. The project manager will maintain personnel training records. Field personnel will be trained to use all monitoring devices and other equipment used in the field.

The laboratories selected for the majority of the analytical work required for this project are PACE Analytical Services, Inc. (PACE) and Envision Laboratory, both located in Indianapolis, Indiana. All laboratories have been certified by the (National Environmental Laboratory Accreditation Program) NELAP or equivalent. Karl Anderson is the PACE laboratory director. Ken Hunt will serve as the PACE project manager. He

will be ultimately responsible for ensuring the quality of the laboratory data. The PACE QA Manager will be Beth Schrage. The Envision Project Manager is Dave Norris and the Envision QA Manager is Cheryl Crum.

The drilling subcontractor for any replacement wells within the excavation footprint has not yet been selected for this project. However, all on-site drilling personnel shall have completed the applicable OSHA training. Additionally, drilling personnel will be required to comply with all site safety regulations covered in the site-specific HASP, provided under separate cover to this QAPP.

1.2 Facility History/Background Information

The Former Columbus Wood Treating Plant - Lot 3 property is located at 53 Lafayette Avenue in the City of Columbus, Indiana. The site consists of one parcel of land (Lot 3) with an area of approximately 1.24 acres. There are currently no buildings on the site.

The wood treating plant began operations at the site in the 1920's, closed in 1970 and the buildings were destroyed in a fire in 1971. Operations on the site included the use of creosote for preservation of wood products. According to previous environmental reports, it appears that coal and coke processing took place at the site from 1885 to 1903.

The following environmental investigation reports have been completed for the site:

- Sieco, 1999a. Sieco, Inc., *Phase I Environmental Site Assessment, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana* May, 1999.
- (Sieco, 1999b). Sieco, Inc., *Phase II Site Investigation, Former Columbus Wood Preserving Plant, 705 2nd Street, Columbus, Indiana* October, 1999.
- AME 2002. August Mack Environmental, Inc., *Draft Report, Subsurface Investigation, Former Columbus Wood Preserving Plant*, *705 2nd Street, Columbus, Indiana*, 2002.
- Haley and Aldrich 2008. Haley and Aldrich, Inc., *Investigation Report, Former Columbus Wood-Treating Facility*, *VRP Site #6060703*, *705 2nd Street, Columbus, Indiana*, 2008.

- Haley and Aldrich 2009. Haley and Aldrich, Inc., *ASTM Phase I Environmental Site Assessment, Lots 2A and 2B Along 2nd Street, Columbus, Indiana*, May 12, 2009.

- BCA 2010, BCA Consulants, Inc., Phase II Environmental Site Assessment, *Former Columbus Wood Preserving Plant*, *705 2nd Street, Columbus, Indiana*, 2010.

- BCA 2011, Bruce Carter Associates, L.L.C., Delineation Sampling, *Former Columbus Wood Preserving Plant - Lot 3*, *53 Lafayette Avenue, Columbus, Indiana*, 2011.

The following operations on the subject site were identified as recognized environmental concerns (RECs) in the Sieco 1999 Phase I ESA:

- Historic activities on the site are known to have resulted in adverse environmental impact to soil and groundwater on the site. Polynuclear aromatic hydrocarbons (PAH's) and other organic contaminants were identified during limited soil and groundwater sampling completed by the EPA in 1987 (no documentation for this sampling event was found).

- There is potential for contamination as a result of gas station operations to the north and east migrating onto the subject site. One site, Bob's Car Wash located at 711 2nd Street was the location of a low priority LUST site. Petroleum contamination was identified on the site as late at 1992.

The following is a summary of the Sieco 1999 Phase II ESA information:

A Phase II ESA was conducted in October, 1999 for the City of Columbus by Sieco, Inc. (Sieco, 1999b), a portion of which included the Subject Site. The Phase II was conducted to address the issues identified in the May, 1999 Phase I ESA and to expand on the findings of the sampling completed by the EPA in 1987. A total of eleven (11) borings were completed during the investigation, and four (4) were placed on the Subject Site (SB-6 and SB-9 through SB-11). Borings SB-7 and SB-8 were placed near the southern property line on the railroad right-of-way. The remaining borings were placed up-gradient to the north or cross-gradient to the east of the site. Groundwater was collected from six (6) probes. A total of 15 soil samples were analyzed for VOCs and SVOCs including PAHs. Based on the results of the investigation, the following conclusions were made regarding the site:

- Significant organic compound contamination was identified through soil and groundwater sampling and analysis on the site. A significant exceedance in soil for

multiple analytes was detected in all six (6) borings SB-6 through SB-11 completed on the site. Notable analytes exceeding the IDCLs include benzene, various PAHs and pentachlorophenol. Exceedances were also detected in groundwater samples collected from borings SB-7 through SB-11. Notable exceedances include naphthalene in SB-8 (6,400 ug/L compared to the IDCL of 2,000 ug/L) and SB-10 (5,000 ug/L compared to the IDCL of 2,000 ug/L) and pentachlorophenol in SB-10 (20,300 ug/L compared to an IDCL of 0.024 mg/L) and SB-11 (.4 mg/L compared to the IDCL of 0.024 mg/L).

The following is a summary of the AME 2002 Phase II ESA information:

A Phase II was conducted by August Mack Environmental, Inc. (AME 2002) in April and May of 2002 (AME 2002). A total of eleven (11) borings were completed during the investigation, and nine (9) were placed on the subject site (B-12 through B-17, B-19, B-20 and B-22). The remaining borings were placed up-gradient to the north or cross-gradient to the east of the site. Soil samples were collected continuously from the surface to the bottom of each boring. Groundwater samples were collected from each of the nine (9) borings on the site. Soil and groundwater samples were analyzed for TPH-GRO and TPH-DRO, VOCs, SVOCs, pH and metals. Based on the results of the investigation, the following conclusions were made regarding the site:

- The majority of the subject site is covered with black foundry sand to depths of 7 to 12 feet below ground surface. Underlying this unit is native soil consisting of sandy or silty clay. A sand and gravel aquifer was encountered at depths of 12 to 18 feet.

- VOCs, SVOCs and arsenic were detected above the RISC IDCL. Soil and groundwater contamination was found in the central and southwestern portion of the subject site.

The following is a summary of the Haley and Aldrich 2008 Phase II ESA information:

A Phase II ESA was conducted for the Columbus Redevelopment Commission in 2008 by Haley & Aldrich, Inc. (Haley and Aldrich 2008). Based on the Phase II investigation, the following conclusions were made regarding the site:

- Impacted groundwater is present in the southwestern corner of the site and extends off site to the south and west.

- The soils at the site consist mainly of foundry sand underlain by sand and gravel or a silty clay layer at some locations. Saturated sand with gravel is found above a continuous silty

clay layer at 25-30 feet below grade. A second saturated sand layer was found below the clay at one location.

- The impacted area extends throughout the southwest portion of the site and chemicals of concern (COCs) include VOCs (primarily naphthalene), SVOCs (primarily pentachlorophenol), some PAHs, TPH-ERO and arsenic.

- The extent of impacted soil is largely limited to the southwest portion of the site and has been delineated.

- A total of 12 groundwater monitoring wells were installed both on and near the subject site, and a single round of groundwater samples were collected.

- Impacted groundwater was also detected in monitoring wells to the west of the southwest corner (PAHs, TPH-ERO and VOCs) and to the south of the site (arsenic, PAHs, TPH-ERO, and VOCs).

- Impacted groundwater was detected in the single monitoring well in the second aquifer at 45-50 feet (PAH and VOC).

- Groundwater flow in the shallow aquifer is to the south toward Haw Creek and the East Fork of the White River.

The following is a summary of the Haley and Aldrich 2009 Phase I ESA information:

A Phase I ESA was conducted on the adjoining properties to the northeast on May 12, 2009 (Haley and Aldrich 2009). These properties are designated as Lots 2A and 2B (the Subject Site is designated as Lot 3). The Subject Site is comprised of two parcels. The parcel designated as Lot 2A is a combined property that was formerly comprised of two smaller lots with the addresses of 703 2nd Street and 711 2nd Street. Lot 2A is approximately 1 acre in size. A portion of Lot 2A is leased to Brett Cruser LLC, and operated as a Rhino Linings sales and installation center. Another portion of Lot 2A is leased to Robert Cseszko and operated as Bob's Car Wash. Columbus Downtown, Inc. owns Lot 2A. The parcel designated as Lot 2B is approximately 4.5 acres in size (formerly part of 701 2nd Street), is vacant, and is owned by Columbus Downtown, Inc. Based on the 2009 Phase I ESA, recognized environmental conditions identified at the site include:

- It appears that coal and coke processing took place at the site from 1885 to 1903 and creosote treatment was conducted at the site from the 1920s to 1971. Soil and groundwater were impacted by VOCs, PAHs and TPH above the IDEM RISC IDCL.

- Several feet of foundry sand was found throughout the site as fill.

- Site operations at the Rhino Linings, since 1997, have included the storage and application of products including solvents and petroleum distillates.

- A LUST was reported at the 711 2nd Street lot in 1992. It was listed as a low priority, but not granted NFA status.

The following is a summary of the BCA 2010 Phase II ESA information:

Based on the results of the Phase II ESAs and the recommendations of the Phase I ESAs, an additional groundwater investigation was requested by the City of Columbus. The purpose of the investigation was to further evaluate the lateral and vertical extent of COCs. More specifically, they were to; 1) determine the lateral extent of COCs off-site to the south and west of the site in the shallow aquifer; 2) investigate the lateral extent of COCs in the middle (50 foot) aquifer; and, 3).determine whether COCs are present below the deepest currently impacted monitoring well (50 feet bgs, middle aquifer).

Groundwater samples from each of the 7 temporary wells, the 12 existing, permanent wells and the 3 new permanent wells were collected and analyzed and the results are presented below:

- Groundwater samples were collected from the 12 existing monitoring wells. Of the 12 wells, five (5) are on the subject site, five (5) are south and/or southeast of the subject site, one (1) is west of the subject site and one (1) is north of the site.

- Groundwater samples were analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260, TPH-ERO by method 8015 and for arsenic by Method 6010.

- Groundwater from MW-2 exceeded the IDCL for benzene (77.5 µg/L compared to an IDCL of 52 µg/L), naphthalene (5,680 µg/L compared to an IDCL of 2,000 µg/L), 3&4-methylphenol (1,540 µg/L compared to an IDCL of 510 µg/L), pentachlorophenol (3,270 µg/L compared to an IDCL of 24 µg/L) and TPH-ERO (91,400 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-4 exceeded the IDCL for pentachlorophenol (813 µg/L compared to an IDCL of 24 µg/L), the PAH compound benzo(a)pyrene (1.31 µg/L compared to an IDCL of 0.39 µg/L) and TPH ERO (2,150 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-6 exceeded the IDCL for the PAH compound benzo(a)pyrene (2.05 µg/L compared to an IDCL of 0.39 µg/L) and TPHERO (4,090 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-9 exceeded the IDCL TPH-ERO (3,650 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-11 exceeded the IDCL TPH-ERO (7,050 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater samples were collected from the 7 temporary probes driven off-site to the south and west of the property and were analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260 and for TPH-ERO by method 8015.

- Groundwater samples from B-23 through B-27 were analyzed for arsenic by Method 6010. Due to low sample volume, samples from B-21D and B-22D were not analyzed for arsenic.

- Groundwater from B-21D exceeded the IDCL TPH-ERO (2,320 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater samples were collected from the 3 new monitoring wells. One of the new wells (MW-7DD) was placed on the subject site and two (MW-13 and MW-14) were placed south of the site. Groundwater was analyzed for SVOC/PAHs by method 8270SIM, for VOCs by method 8260 and for TPH-ERO by method 8015.

- Groundwater from MW-7DD exceeded the IDCL for naphthalene (2,270 µg/L compared to an IDCL of 2,000 µg/L), benzo(a)pyrene (1.14 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (5,790 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-13 exceeded the IDCL for naphthalene (3,410 µg/L compared to an IDCL of 2,000 µg/L), benzo(a)pyrene (0.70 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (8,070 µg/L compared to an IDCL of 1,100 µg/L).

- Groundwater from MW-14 exceeded the IDCL for benzo(a)pyrene (0.70 µg/L compared to an IDCL of 0.39 µg/L) and TPH-ERO (1,940 µg/Lcompared to an IDCL of 1,100 µg/L).

The following is a summary of the BCA 2011 delineation sampling and Tier I treatability study:

The Interim RWP and QAPP was conditionally approved with amendments on May 6, 2011 and the project was publically bid during the latter part of May. In June, IDEM determined that a significant portion of the impacted soil, if removed from the site, would have to be treated or disposed as a listed hazardous waste. The CRC requested that BCA conduct more detailed delineation of impacted soil and evaluate treatability of the soil by solidification/stabilization (S/S).

The purpose of the delineation sampling was to better estimate the volume of impacted soil (above and below thresholds for off-site non-hazardous waste disposal) and clean overburden soils. The purpose of the Tier I treatability study was to determine if soil solidification / stabilization (S/S) is a feasible remediation technology for the site.

The field work was conducted August 2nd through August 5th, 2011. The work scope consisted of a total of 26 soil probes (P-1 through P-26) and two (2) groundwater probes (SB-28 and SB-29). A total of 79 soil samples were analyzed for SVOCs by U.S. EPA Method 8270/8270SIM. Four (4) soil samples were analyzed for baseline SVOC and SVOC SPLP and two (2) soil samples were analyzed for TCLP (VOC, SVOC, and 14 Metals), ignitability, corrosivity, and reactivity. Field duplicates and MS/MSD samples were also collected at a frequency of one (1) per 20 samples.

The groundwater samples were collected using the IDEM-approved low-flow or micro-purge sampling method and were analyzed for VOCs and SVOCs by U.S. EPA Methods 8260 and 8270, respectively.

Impacted soil samples exhibiting elevated flame ionization detector (FID) readings were collected from the borings and transported to Western Michigan University for the Tier I treatability study.

The investigation results are summarized below:

- Each soil probe was extended from the surface to the first groundwater at approximately 18 to 20 feet with exception of one (1) probe, P-7, which encountered refusal at 8 feet bgs;

- Nine (9) of the 26 soil borings had non-detectable samples analyzed for SVOCs. Eight (8) borings had samples above ICL-direct (>54 ppm) for PCP. The remaining nine (9) soil borings had samples above the ICL-migration for SVOCs but below the ICL-direct (>54 ppm) for PCP;

- Based on the analytical results from the soil boring samples the impacted area was estimated to include 5,400 tons of soil containing PCP >ICL-direct (>54 ppm). The impacted area was also estimated to include 6,000 tons of soil SVOC >ICL-migration and PCP <ICL-direct. The clean overburden soil was estimated at 4,300 tons;

- Four (4) samples, one (1) from each boring including P-6, P-10, P-15, and P-20, were analyzed for SVOC and SVOC SPLP. Two (2) of the highest SVOC SPLP sample results from the four (4) samples were naphthalene and PCP at 10,300 and 26,300 ug/l, respectively;

- Two (2) soil samples from P-6 and P-22 were analyzed for hazardous waste characteristics (TCLP, ignitability, corrosivity, and reactivity) and contained TCLP. SVOC PCP and metals (barium, copper, lead, and zinc) were reported above detection limits but far below hazardous waste characteristic levels.

- Groundwater samples collected from temporary points SB-28 and SB-29 were analyzed for VOCs and SVOCs. The sample collected from SB-28 was non-detect for all parameters. The sample collected from SB-29 had detectable levels of acenaphthene, anthracene, and fluorene but were below the RDCLs for groundwater.

- The Tier I S/S treatability study work scope involved the analysis of SVOC SPLC, falling head permeability, and unconfined compressive strength on three (3) samples; an untreated or control sample, a low dose (5% Portland cement (PC) with 1% powdered activated carbon (PAC)) sample, and a high dose sample (20% PC and 5% PAC). The Tier I results indicated at a high dose concentration, the SVOC SPLP passed for every parameter except PCP (PCP had a SVOC SPLP at 315 ppb above the IDCL in groundwater of 24 ppb). The falling head permeability and unconfined compressive strength results at a high dose concentration were beyond the U.S. EPA specifications for S/S at 2.72 x 10^{-7} cm/sec and 465.5 psi, respectively. A Tier II study is necessary to optimize the PC and PAC amendment percentages.

1.3 Project Description and Schedule

Remediation

The end-use of the property is commercial/industrial with the property used as a parking lot for a recreational facility. The goal of the remediation is to excavate a portion of the soils that exceed the industrial closure level – soil direct and construction worker exposures based on SVOCs other than PCP. The impacted soil containing PCP greater than 54 mg/kg will be treated in-place using soil solidification / stabilization. The goal of the remediation is to obtain closure on the site meeting the following goals:

- Excavate clean overburden soils in the impacted area to an average depth of eight (8) feet bgs and stockpile the soils for re-use;
- Excavate and dispose of impacted soil to an average depth of about 12 feet bgs in part of the area;
- Treat in-situ using soil solidification / stabilization (S/S) technology to an average depth of 20 feet bgs in PCP-impacted areas;
- Conduct disposal and backfill sampling on stockpiles soil and confirmatory soil sampling of the sidewalls and bottom of the excavation;
- Backfill with non-impacted soil from the upper soils on-site and clean fill material transported to the site;
- Re-grade the site and complete site redevelopment as a parking lot.
- Conduct four rounds of groundwater samples over 2 years.

The remediation procedures will follow those recommended by the IDEM guidance documents (RISC) and regulations and industry-accepted practices.

The location of the impacted soils is shown on Figure 3. It is estimated that contracting will include the removal and disposal 1,820 tons and treating in-place 5,610 tons of impacted soil exceeding the ICL-Direct and Construction limit for SVOCs orther than PCP and ICL-Direct for PCP, respectively.

The majority of the impacted soils will be treated in-place. In-situ soil S/S will include mixing all applicable soil with an auger or hydraulic excavator while injecting a S/S slurry. The slurry will consist of Portland cement (PC) and powdered activated carbon (PAC) and will be mixed to 12-16% PC and 3-6% PAC. Since some of the soils exceed the IDEM RISC construction worker levels, the excavation contractor will be required to meet HAZWOPPER training requirements under 29 CFR 1910.120.

Soil confirmation closure samples will be collected at 20 foot intervals from the sidewalls and bottom of the excavation, where appropriate. The samples will be analyzed for SVOCs. Closure samples will meet the QA/QC requirements herein and the laboratory report will include a level IV data package. Upon completion of the remediation, BCA will prepare a Closure Report documenting the remediation and final sampling and the report will be submitted to the IDEM.

The soil excavation and disposal and the in-situ soil S/S is planned to occur during the Spring of 2012.

A NELAP-certified laboratory will be used to ensure overall analytical quality. PACE or Envision will be the primary laboratory used for analyses. Copies of their NELAP certificates are included in Appendix A.

1.4 Data Quality Objectives (DQOs)

DQOs are qualitative and quantitative statements that clearly state the objective of a proposed project, define the most appropriate type of data to collect, determine the appropriate conditions for data collection, and specify acceptable decision error limits that establish the quantity and quality of data needed for decision making. The DQOs are

based on the use of the data that will be generated. Different data uses may require different quantities of data and levels of quality.

1.4.1 Analytical Quality Objectives

Analytical quality objectives are used to ensure that the analysis will accurately and adequately identify the contaminants of concern, and to ensure that the analysis selected will be able to achieve the quantitation limits less than or equal to the target cleanup levels.

1.4.1.1 Field Screening

Field-screening instruments provide a lower quality of analytical data compared to laboratory equipment in a controlled environment. However, field methods provide rapid "real-time" results for field personnel in order to help guide field decision-making processes. These techniques are often used for health and safety monitoring, initial site characterization to locate areas for detailed assessment, and preliminary comparison of remedial objectives. During sampling and remediation activities, the breathing space of site personnel may be monitored for the presence of semi-volatile organic vapors using a flame-ionization detector (FID). The FID may also be used to perform field screening of soil samples in order to assist in the selection of samples to be submitted for laboratory analysis. Generally, the soil interval with the highest FID readings at a boring or sampling location will be submitted to the laboratory. If no volatile organic vapors are detected by the FID, samples will be selected for laboratory analysis based on the following:

- Obvious discoloration, odor, or other visible signs of contamination.
- If no visible or odorous signs of contamination are evident, a sample from the zone directly above the water table will be submitted.

- A sample from a depth corresponding to the zone in the subsurface expected to contain the greatest concentration of contaminants will be submitted. This selection will be based on the type of release and the history of the area being investigated and will be determined by the BCA project manager.

1.4.1.2 IDEM Analyses

Columbus may wish to obtain a site status letter from the IBP. Therefore, all laboratory analyses will be conducted under IDEM DQO protocol as set out in the Risk-Integrated System of Clean-up (RISC) guidance.

PACE or Envision, a NELAP-certified laboratory, will be the primary laboratory for this project (Certificates located in Appendix A). A NELAP-certified laboratory is one that has undergone performance evaluations performed by a state agency for method accuracy and precision, and meets the requirements set forth by the U.S. EPA. If necessary, volatile organic compounds (VOCs), semivolatile organic compounds [SVOCs], inorganic metals analyses, total petroleum hydrocarbon [TPH] compounds – gasoline-range organics and extended-range organics [GRO/ERO] will be performed by PACE or Envision at their Indianapolis laboratory. Table 2 summarizes the analyses performed by each of the laboratories.

1.4.2 Project Quality Objectives

The project quality objectives process is a series of planning steps designed to ensure that the type, quantity, and quality of environmental data used in decision making are appropriate for the intended application. There are five steps in the project quality objectives process that include problem statement, decision identification, decision inputs, assessment boundary, and the decision process. The details of these steps are provided in the following sections.

1.4.2.1 Problem Statement

Columbus intends to use the IFA SRF/RLF funds for soil remediation at the Former Columbus Wood Treating Plant. A Remediation Work Plan (RWP) will be submitted with this QAPP. Most of the impacted soils will be treated by means of in-situ soil S/S and some may be excavated, transported, and disposed of at an approved landfill. ,The excavation will be backfilled with clean fill material and non-impacted on-site soils, and compacted to a new sub-grade elevation. A Closure report will be prepared and submitted to IDEM for review and approval.

1.4.2.2 Decision Identification

The soil confirmation closure samples will be used to confirm the impacted soils have been remediated. Groundwater samples will used to confirm status of groundwater.

1.4.2.3 Decision Inputs

Samples of soil will be collected for analysis as described in the RWP in order to confirm soil closure. Samples will be collected to confirm that impacted soils have been excavated. Groundwater samples will collected after remediation is complete to confirm improvement in groundwater quality.

1.4.2.4 Assessment/Remediation Boundary

Site maps showing the site limits, sampling locations and remediation areas are attached.

1.4.2.5 Columbus Decision Process

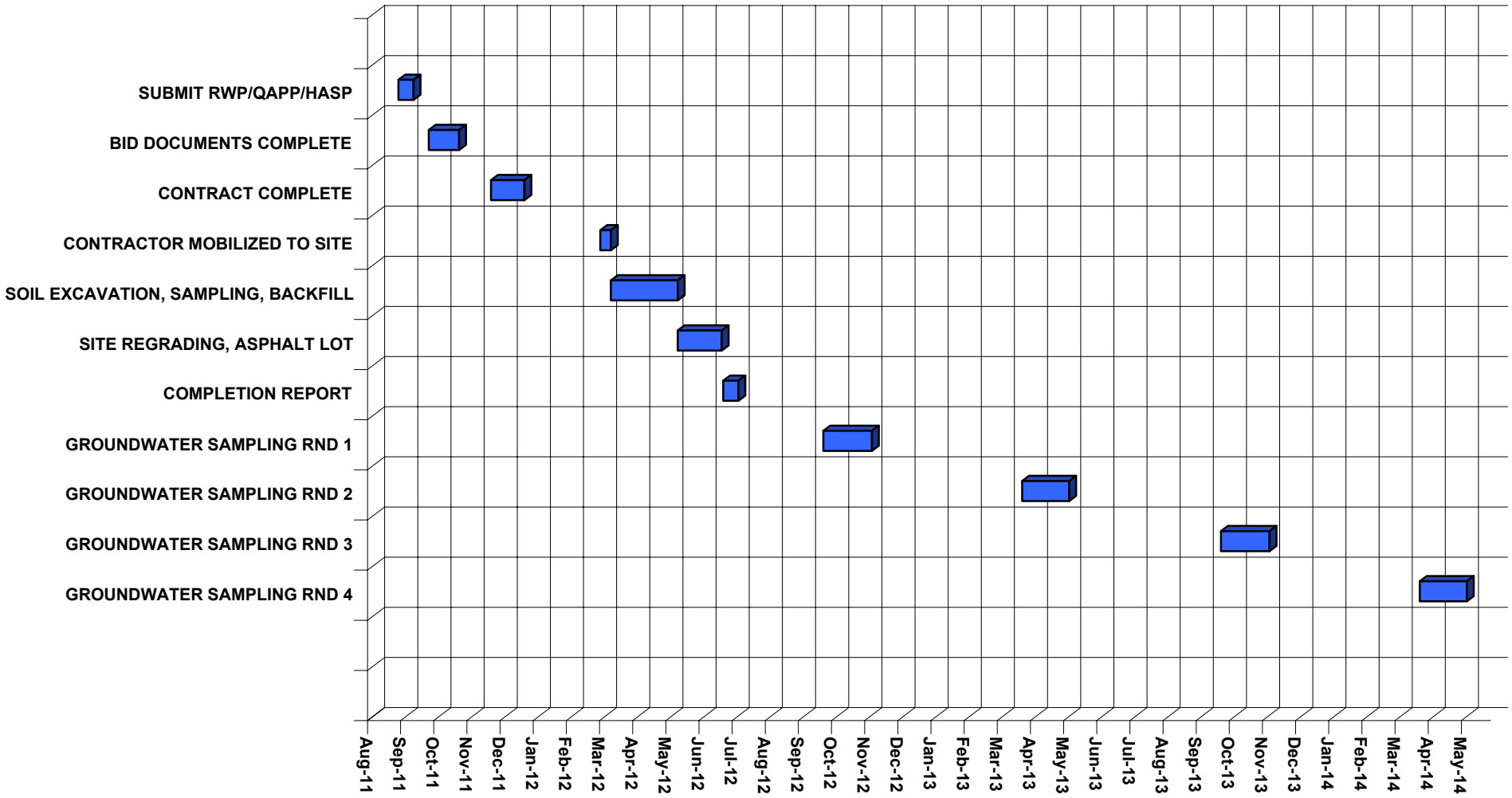
The closure limits are the RISC commercial/industrial limits based on soil direct and construction worker exposure (ICL-Direct and Construction) (RISC 2001, as amended through 2010). The IDEM RISC soil standards for residential properties and commercial/industrial properties are presented in Table 3 (located at the end of the

QAPP). If sample results collected as part of the soil closure are all below the applicable IDEM RISC closure levels, then the subject site will proceed as planned.

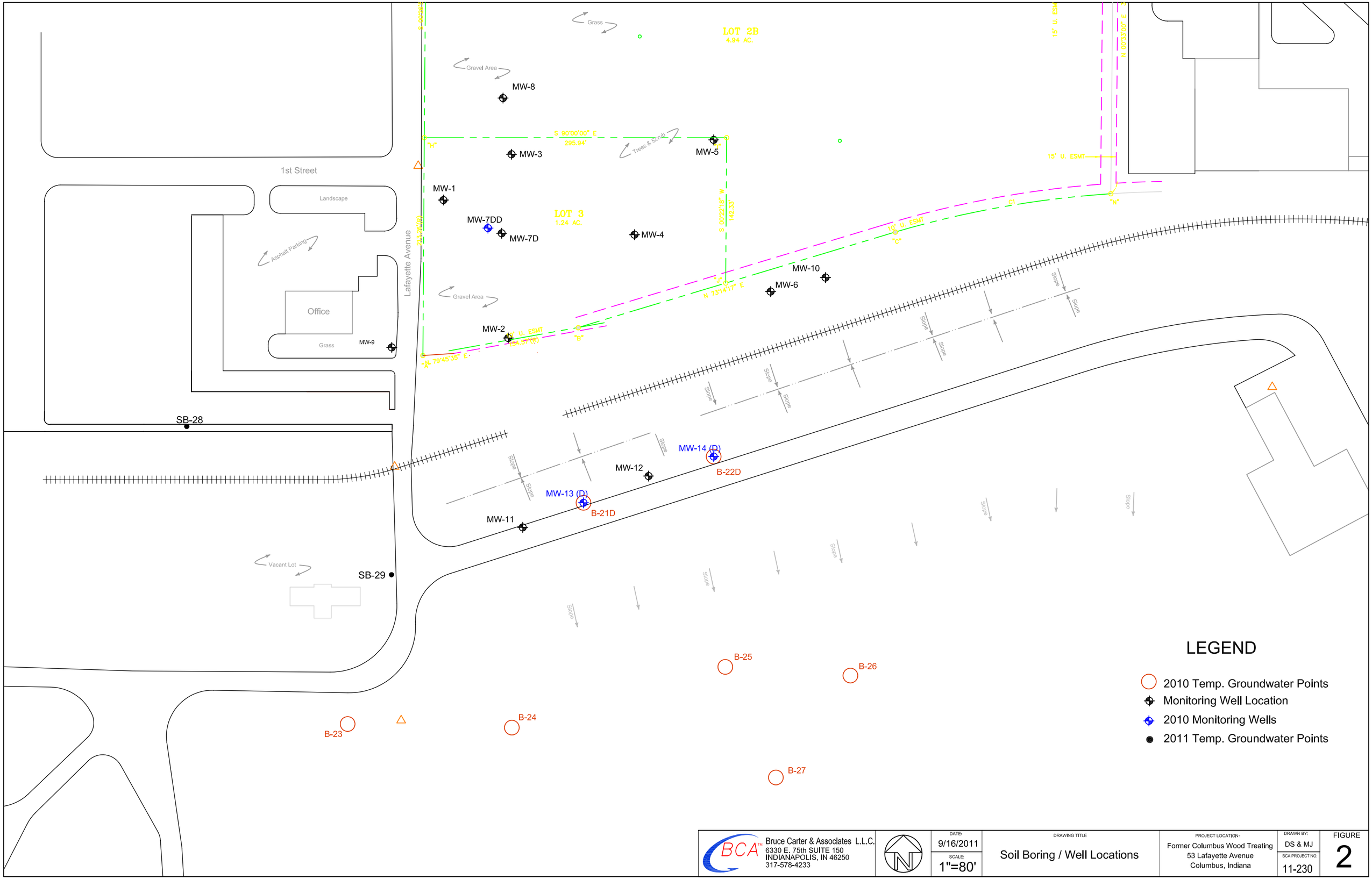
If sample results exceed the applicable IDEM RISC standards, Columbus will consider the following options:

- Re-sample;
- Extend the area of remediation , then re-sample;
- Conduct a risk assessment; or
- Modify the end-use.

TABLE 1
COLUMBUS DOWNTOWN, INC.
FORMER COLUMBUS WOOD TREATING PLANT
TIMETABLE (9/2011 - 5/2014)



J. Kilmer
BCA Consultants, Inc.
(317) 578-4233



LEGEND

- 2010 Temp. Groundwater Points
- Monitoring Well Location
- 2010 Monitoring Wells
- 2011 Temp. Groundwater Points

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 9/16/2011 SCALE: 1"=80'	DRAWING TITLE: Soil Boring / Well Locations	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 2

1st Street

Landscape

Asphalt Parking

Office

Grass

MW-9

HAB-12

Lafayette Avenue

213.26'(R)

S 90°00'00" E

295.94'

B-14

Trees & Scrub

MW-5

"I"

MW-3

B-22

MW-1

S 00°22'18" W

142.33'

LOT 3

1.24 AC.

MW-7DD

MW-7D

MW-4

Soil Excavation / Treatment Area

"J"

N 73°14'17" E

Gravel Area

Trees & Scrub

MW-2

10' U. ESMT

154.57'(R)

"B"

Trees & Scrub

N 79°45'35" E

"A"

Trees & Scrub

LEGEND

Soil Excavation Boundary

0 30

Slope

Bruce Carter & Associates L.L.C. 6330 E. 75th SUITE 150 INDIANAPOLIS, IN 46250 317-578-4233	DATE: 9/16/2010 SCALE: 1"=30'	DRAWING TITLE Approx. Soil Excavation / Treatment Boundary	PROJECT LOCATION: Former Columbus Wood Treating 53 Lafayette Avenue Columbus, Indiana	DRAWN BY: DS & MJ BCA PROJECT NO. 11-230	FIGURE 3

Appendix I

SITE HEALTH AND SAFETY PLAN

Former Columbus Wood Treating, 53 Lafayette Ave., Columbus, Indiana

1.0 GENERAL PROJECT INFORMATION

Prime Contractor:	**Bruce Carter Associates, LLC**
Client:	**Columbus Redevelopment Commission**
Subject Site Name:	**Former Columbus Wood Treating**
Site Address:	**53 Lafayette Ave., Columbus, IN**
Principal: **Project Manager:**	**John Kilmer** **Mark R. James, L.P.G.**
Date of Plan:	**September 20, 2011**

SITE DESCRIPTION

Type of Facility (describe):	**Closed Wood Treatment Facility**
Active or Closed/Abandoned:	**Subject Site is not occupied**
Describe surface features (buildings, paved or unpaved, overhead/underground utilities):	**Vacant lot bordered by Lafayette Ave. to the west; underground utilities present along western easement; above-ground utilities power pole near 1st Street extending to the east.**
List any site access restrictions:	**None**
Surrounding neighborhood description:	**Commercial**

SITE ACTIVITIES - The site activities covered by this HASP include those checked in the box below:

Site Activity	Soil Borings	Monitoring Well Replacement	Soil / Purge Water Disposal	Soil Excavation	Soil Sampling
Assessment					
Investigation					
Remediation		X		X	X

EMERGENCY PHONE NUMBERS

POSITION	NAME	CONTACT
Safety Officer	**Mark R. James, L.P.G.**	**© (812) 374-8271**
Field Technician	**Mark R. James, L.P.G.**	**© (812) 374-8271**
Industrial Services	**To be determined**	**To be determined**
Subcontractors: List all names of Subcontractors	**To be determined**	**To be determined**
Hospital Name	**Columbus Regional Hospital**	
Hospital Address	**2400 E. 17th St., Columbus, IN**	
Hospital Phone Number	**(812) 379-4441**	
Directions to nearest Hospital	**See attached map**	
Fire and Emergency	**Call 911**	
EPA Hotline:	**1-800- 621-3191**	

2.0. INTRODUCTION/SCOPE OF WORK

This plan provides health and safety guidelines for site investigation and remediation activities conducted by Bruce Carter Associates, LLC (BCA) to protect on-site personnel, visitors and the public from physical harm and exposure to hazardous materials and/or wastes. The procedures and guidelines contained herein are based on the best available information at the time of the plan's preparation. Specific requirements may be revised if new information is received, or site conditions change. It is the responsibility of the field personnel to evaluate the site work conditions and if in doubt about safety or an operation, request assistance from the Site Safety Officer. Compliance with this plan is mandatory for all on-site BCA personnel and subcontractors.

Operations at the site may require additional tasks not identified in the preparation of this health and safety plan (HASP). Before performing any task not covered in this HASP a revision must be prepared, and approved by the Site Safety Officer (SSO).

2.1 Scope of Work

Scope of work for the investigation at the site includes:

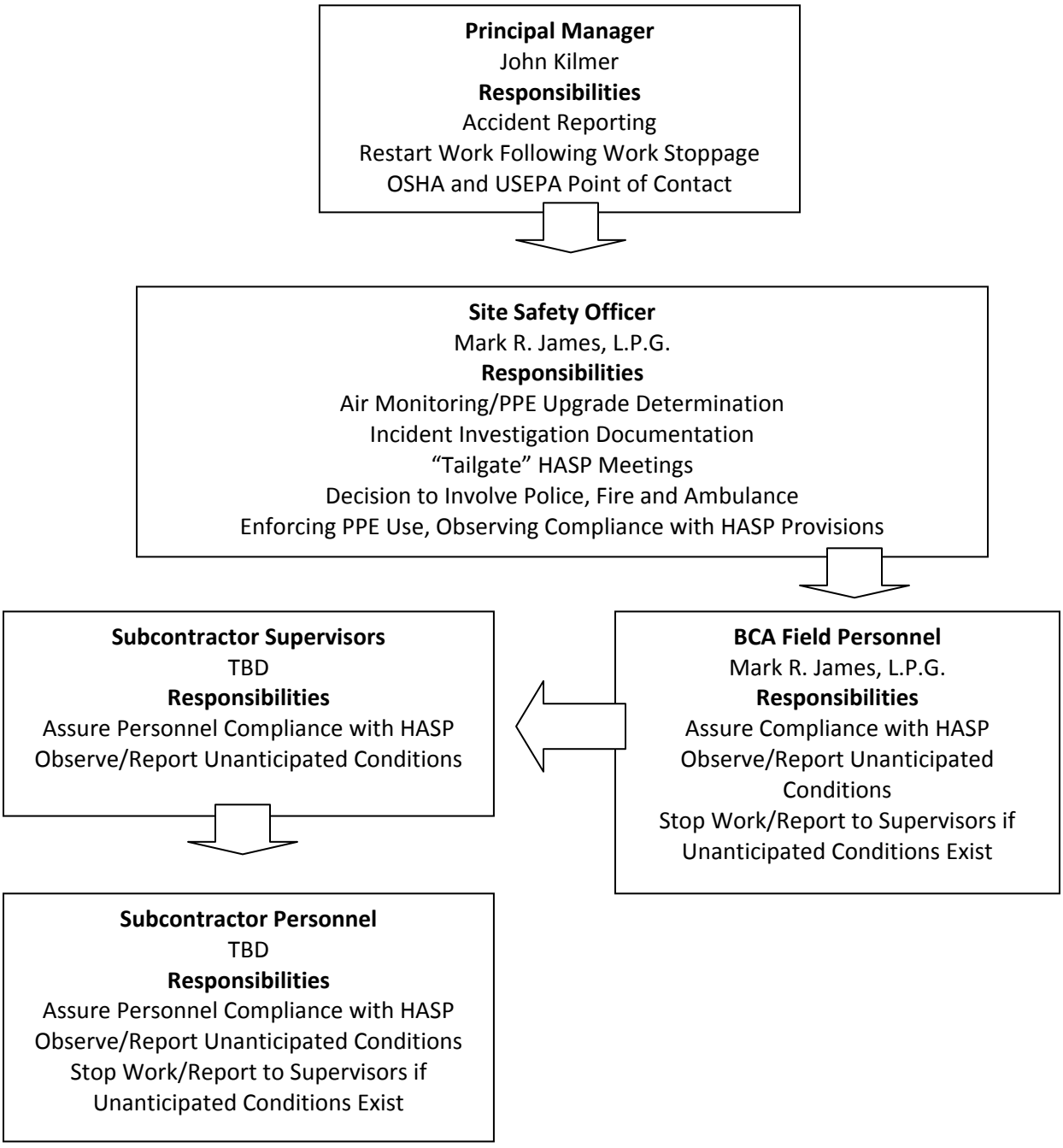
- Remedial construction involving soil excavation, stockpiling, disposal, soil sampling, in-situ soil stabilization / solidification

3.0 PERSONNEL CONTACT INFORMATION AND PHONE NUMBERS

The BCA SSO will have the authority to alter work practices, stop work, and/or allocate resources to mitigate unsafe work practices. All personnel have the authority to stop any work practice that may endanger site personnel or the general public. Restarting work will be done in consultation with the SSO. The following personnel and subcontractor resources will be used on this site:

POSITION	NAME	CONTACT
Safety Officer	**Mark R. James, L.P.G.**	**© (812) 374-8271**
Field Technician	**Mark R. James, L.P.G.**	**© (812) 374-8271**
Excavation Services	**To be determined**	**To be determined**
Remediation Services	**To be determined**	**To be determined**
Subcontractors: List all names of subcontractors to be used for site activities	**NA**	**NA**

TABLE OF AUTHORITY



4.0 EMERGENCY INFORMATION/RESPONSE

The purpose of this section is to provide the on-site user with contact and location information to be used in case of an emergency response situation. In case of an emergency on-site, **CALL 911** first and **NOTIFY** the site operator (if available). Then contact the BCA project manager and Site Safety Officer for this site.

EMERGENCY PHONE NUMBERS

Hospital Name	Columbus Regional Hospital
Hospital Address	2400 E. 17th Street, Columbus, IN 47201
Hospital Phone Number	(812) 379-4441
Directions to nearest Hospital	See attached map
Fire and Emergency	Call 911
EPA Hotline:	1-800- 621-3191
National Response Center	1-800-424-8802
TSCA HOTLINE	1-800-424-9065
Poison Control Center	1-800-382-9097
CHEMTREC	1-800-424-9300
National Pesticide Center	1-800-858-7378

5.0 STANDARD EMERGENCY PROCEDURES

5.1 Hazard Communication

Any organization wishing to bring any hazardous material onto any BCA-controlled work site must first provide a copy of the item's Material Safety Data Sheet (MSDS) to the Site Safety Officer for approval and filing (the Site Safety Officer will maintain copies of all MSDSs on site). MSDSs may not be available for locally-obtained products, in which case some alternate form of product hazard documentation will be acceptable. All personnel shall be briefed on the hazards of any chemical product they use, and shall be aware of and have access to all MSDSs. All containers on site shall be properly labeled to indicate their contents. Labeling on any containers not intended for single-day, individual use shall contain additional information indicating potential health and safety hazards (flammability, reactivity, etc.).

The Hazard Communication standard (29 CFR 1910.1200) has been provided to employees, and a written copy is on file at BCA's office.

5.2 Confined Space Entry

There is no expectation that a confined space will be entered during this project.

6.0. PERSONNEL TRAINING RECORDS

All personnel working within the exclusion zone are required to have 40 hour HAZWOPPER training and be current with refresher training in accordance with 29CFR 1910.120.

7.0 KNOWN OR ANTICIPATED HAZARDS

7.1 General Safety Rules

Housekeeping

During site activities, work areas will be continuously policed for identification of excess trash and unnecessary debris. Excess debris and trash will be collected and stored in an appropriate container (e.g., plastic trash bags, garbage can, roll-off bin) prior to disposal. At no time will debris or trash be intermingled with waste PPE or contaminated materials.

Smoking, Eating, or Drinking

Smoking, eating and drinking will not be permitted inside any controlled work area at any time. Field workers will first wash hands and face immediately after leaving controlled work areas (and always prior to eating or drinking). Consumption of alcoholic beverages is prohibited at any BCA-controlled site.

Personal Hygiene

The following personal hygiene requirements will be observed:

Water Supply: A water supply adhering to the following requirements will be utilized:

- An adequate supply of potable water will be available for field personnel consumption.
- Potable water can be provided in the form of water bottles, canteens, water coolers, or drinking fountains. Where drinking fountains are not available, individual-use cups will be provided as well as adequate disposal containers. Potable water containers will be properly identified in order to distinguish them from non-potable water sources.
- Non-potable water may be used for hand washing and cleaning activities. Nonpotable water will not be used for drinking purposes. All containers of non-potable water will be marked with a label stating:

Non-Potable Water
Not Intended for Drinking Water Consumption

Toilet Facilities:

- A minimum of one toilet will be provided for every 20 personnel on site, with separate toilets maintained for each sex except where there are less than 5 total personnel on site. For mobile crews where work activities and locations permit transportation to nearby toilet facilities on-site facilities are not required.

Washing Facilities:

- Employees will be provided washing facilities (e.g., buckets with water and Alconox) at each work location. The use of water and hand soap (or similar substance) will required by all employees following exit from the Exclusion Zone, prior to breaks, and at the end of daily work activities.

Buddy System

All field personnel will use the buddy system when working within any controlled work area. Personnel belonging to another organization on site can serve as "buddies" for BCA personnel. Under no circumstances will any employee be present alone in a controlled work area.

7.2 Heat and Cold Stress

Heat and cold stress may vary based upon work activities, PPE/clothing selection, geographical locations, and weather conditions. To reduce the potential of developing heat/cold stress, be aware of the signs and symptoms of heat/cold stress and watch fellow employees for signs of heat/cold stress.

Heat stress can be a significant field site hazard, particularly for non-acclimated personnel operating in a hot, humid environment. Site personnel will be instructed in the identification of a heat stress victim, the first-aid treatment procedures for the victim and the prevention of heat stress casualties. Work-rest cycles will be determined and the appropriate measures taken to prevent heat stress.

7.3 Responding to Heat-Related Illness

The guidance below will be used in identifying and treating heat-related illness.

Type of Heat-Related Illness	Description	First Aid
Mild Heat Strain	The mildest form of heat-related illness. Victims exhibit irritability, lethargy, and significant sweating. The victim may complain of headache or nausea. This is the initial stage of overheating, and prompt action at this point may prevent more severe heat-related illness from occurring.	• Provide the victim with a work break during which he/she may relax, remove any excess protective clothing, and drink cool fluids. • If an air-conditioned spot is available, this is an ideal break location. • Once the victim shows improvement, he/she may resume working; however, the work pace should be moderated to prevent recurrence of the symptoms.
Heat Exhaustion	Usually begins with muscular weakness and cramping, dizziness, staggering gait, and nausea. The victim will have pale, clammy moist skin and may perspire profusely. The pulse is weak and fast and the victim may faint unless they lie down. The bowels may move Involuntarily.	• Immediately remove the victim from the work area to a shady or cool area with good air circulation (avoid drafts or sudden chilling). • Remove all protective outerwear. • Call a physician. • Treat the victim for shock. (Make the victim lie down, raise his or her feet 6–12 inches, and keep him or her cool by loosening all clothing).
Heat Stroke	The most serious of heat illness, heat stroke represents the collapse of the body's cooling mechanisms. As a result, body temperature may rise to 104 degrees Fahrenheit or higher. As the victim progresses toward heat stroke, symptoms such as headache, dizziness, nausea can be noted, and the skin is observed to be dry, red, and hot. Sudden collapse and loss of consciousness follows quickly and death is imminent if exposure continues. Heat stroke can occur suddenly	• Immediately evacuate the victim to a cool and shady area. • Remove all protective outerwear and as much personal clothing as decency permits. • Lay the victim on his or her back with the feet slightly elevated. • Apply cold wet towels or ice bags to the head, armpits, and thighs. • Sponge off the bare skin with cool water or rubbing alcohol, if available. • The main objective is to cool without chilling the victim. • Give no stimulants or hot drinks. • Since heat stroke is a severe medical condition requiring professional medical attention, emergency medical help should be summoned immediately to provide onsite treatment of the victim and proper transport to a medical facility.

8.0 PHYSICAL HAZARDS AND MITIGATION PROCEDURES

Safe work practices in compliance with OSHA standards and this document will be used at all times. The first aid kit and fire extinguisher are to be on site at all times. The following table lists the anticipated hazards and the associated safety rules for proper control.

Hazard Description	Potential Result	Control Measure
Tool Handling	Cuts, contusions, bruises	Wear gloves, steel-toed boots and safety glasses
Vehicle Traffic	Impact, getting struck by vehicle	Set up safety cones around well being sampled. Communicate activities with any onsite personnel. Wear reflective vest. Use truck or van as a shield if possible. Set up snow fence for each location where pedestrian walkways are affected and cover all openings or secure with snow fence during all breaks or overnight.
Heat/Cold	Heat stress/frostbite	Heat: Take frequent breaks and drink plenty of fluids. Watch for signs/symptoms of heat stress (fainting, dizziness, excessive sweating) Cold: Wear several layers of clothing, do not work in excessive cold, take frequent breaks.
Slip, trip and fall	Bruising, sprained ankle/foot/knee	Be aware of surroundings and practice good housekeeping measures around the site area to minimize items that pose a trip hazard.
Splash	Exposure to contaminants in the groundwater – dermal and/or eye	Wear gloves and safety glasses during purging of well and sample collection.
Hazardous Energy Control	Personal injury, electrocution	Use lockout/tagout controls to ensure that hazardous energy sources (electrical) are controlled prior to valve removal activities, including electrical and water pressure. All underground utilities should be marked prior to intrusive activities. A site walk-through should identify all overhead power lines.
Heavy Equipment	Struck by	Keep aware of the location of heavy equipment at all times. If overhead activities are taking place (drilling, digging) hard hats will be used.
Fire and Explosion	Flammable vapors from petroleum may ignite	Monitor for the presence of flammable vapors with an explosimeter. Fire extinguishers should be available. Evacuate the area immediately, call 911 and evaluate the situation.
Noise/Hearing Protection	Active drilling and other processes may exceed noise exposure standard of 85 decibels	Wear appropriate hearing protection.
Biological Hazards	Poisonous vegetation and/or stinging/biting insects or animals	Keep aware of surroundings and if bite or sting takes place seek first aid and/or medical attention

9.0. CHEMICAL HAZARDS POTENTIALLY ON SITE

9.1 Waste Characterization

Potential hazards for each of the tasks presented below are assessed. As work items are being performed, continued monitoring and observation will be used to determine if conditions change. Site Safety Officer will be responsible for continued assessment, and work practice modification in the event that unsafe work practices are observed. The following site activities are anticipated:

- Soil excavation, sampling, and disposal; and,
- In-situ soil Solidification / Stabilization

9.2 Hazard Evaluation

Chemicals of Concern: Identify all chemicals that are present or suspected to be present on site and the maximum concentrations detected in soil or water.

Chemical Name	TLV/PEL (8 hour TWA exposure limit for inhalation exposure in breathing zone)	Maximum Concentration in Soil (mg/kg or ppm)	Maximum Concentration in Water (mg/l or ppm)	Health Hazard/Comments
SVOCs	Varies	TBD	TBD	Varies
PAHs	Varies	TBD	TBD	Varies

Is free product onsite? ___ Yes ___ No _X__ Unsure

Will work tasks be performed inside buildings/enclosures? ___ Yes _X_ No

Is there evidence that contaminants present could cause vapor problems in structures on-site? __Yes _X_ No __ Unsure

If Yes, is building mechanically ventilated? ___Yes ___No

10.0 BIOLOGICAL HAZARDS AND MITIGATION PROCEDURES

Contact with animals, insects, and plants can cause injury and illness to personnel. Care must be taken to ensure that these types of injuries are avoided. Some examples of biological hazards include:

- Wild animals, such as snakes, raccoons, squirrels, and rats. These animals not only can bite and scratch, but can carry transmittable diseases (e.g., rabies). Avoid the animals whenever possible. If bitten, go to the nearest medical facility.

- Insects such as mosquitoes, ticks, bees, and wasps. Mosquitoes can potentially carry and transmit the West Nile Virus or Eastern Equine Encephalitis (EEE). Ticks can transmit Lyme disease or Rocky Mountain Spotted Fever. Bees and wasps can sting by injecting venom, which causes some individuals to experience anaphylactic shock (an extreme allergic reaction). Whenever you will enter areas that provide a habitat for insects (e.g., grass areas, woods), wear light-colored clothing, long pants and shirt, and spray exposed skin areas with a DEET-containing repellent. Keep away from high grass wherever possible. Keep your eyes and ears open for bee and wasp nests. If bitten by insects, see a doctor if there is any question of an allergic reaction.

- Plants such as poison ivy and poison oak can cause severe rashes on exposed skin. Be careful where you walk, wear long pants, and minimize touching exposed skin with your hands after walking through thickly vegetated areas until after you have thoroughly washed your hands with soap and water.

11.0 ADDITIONAL HAZARDS

The following daily log should be filled out whenever an unexpected hazard is encountered. Include injuries, PPE used, or work stoppages caused by unsafe conditions.

Hazard Observed	Date	Observed by (Print Name)	Mitigation Taken/PPE Used

12.0 LIST OF FIELD ACTIVITIES

The following is a list of filed activities anticipated for this project:

- The first field activity in this investigation will be utility location. Because this is not an invasive activity, this Site Health and Safety Plan will not be applied to the utility locating contractor.

- Pre-marking excavation locations and depths will be performed by BCA. This is also not an invasive activity and no hazards are anticipated.

- Excavating soil. This activity will be performed by a subcontractor who will excavate soil in the pre-marked areas. These personnel will be subject to the provisions of this health and safety plan.

- Treating in-place soils containing hazardous constituents.

- All contractors will prepare and submit a Health and Safety Plan (HASP) to the project manager before mobilizing to the site. The HASP will be reviewed by the project manager and accepted or rejected. The project manager will not approve the contractors HASP and will only review it to assure that it is at least as stringent as the HASP used by the project manager.

13.0 SITE DESCRIPTION

Type of Facility (describe):	Warehouse
Active or Closed/Abandoned:	Site is closed / abandoned
Describe Surface Features (buildings, paved or unpaved, overhead/underground utilities):	Vacant lot; paved street borders the site to the west.
List Any Site Access Restrictions:	None
Surrounding Neighborhood Description:	Commercial

14.0 PERSONNEL PROTECTIVE GEAR/ENGINEERING CONTROLS

14.1 Personnel Protective Gear

Level D:

Soil concentrations in previous investigations are not expected to cause health risks if handled carefully. Sampling can be performed using modified Level D protection. The following items are needed for modified Level D.

- Hard hat (for overhead hazard activities)
- Steel-toe work boots
- Coveralls and/or long pants with short sleeved shirts (at a minimum)
- Eye protection when a splash hazard exists
- Hearing protection during active drilling or other loud operations
- Nitrile gloves for sampling and/or contact with soil and groundwater.

Modifications:

Modifications to this level of protection will be made if site conditions and/or contamination levels warrant an upgrade in protection level.

Level C:

If site conditions warrant, an upgrade to level C will be made if air monitoring equipment indicates respiratory protection is required. Air-purifying respirators with organic vapor cartridges will be used in this situation. The MSDS for that substance shall be consulted to determine the appropriate personal protective equipment (i.e. chemical resistant coveralls/gloves, chemical goggles, respiratory protection).

Surveillance Equipment and Materials:

Flame Ionization Detector

Work Limitations (Time of Day, etc.):

All sampling operations will be conducted during daylight hours. No smoking or eating during soil handling procedures.

14.1.1 PPE Donning and Doffing Information

The following information is to provide field personnel with helpful hints that, when applied, make donning and doffing of PPE a more safe and manageable task:

- Never cut disposable booties from your feet with basic utility knives. This has resulted in workers cutting through the booty and the underlying sturdy leather work boot, resulting in significant cuts to the legs/ankles. Recommend using a pair of scissors or a package/letter opener (cut above and parallel with the work boot) to start a cut in the edge of the booty, then proceed by manually tearing the material down to the sole of the booty for easy removal.

- When applying duct tape to PPE interfaces (wrist, lower leg, around respirator, etc.) and zippers, leave approximately one inch at the end of the tape to fold over onto

itself. This will make it much easier to remove the tape by providing a small handle to grab while still wearing gloves. Without this fold, trying to pull up the tape end with multiple gloves on may be difficult and result in premature tearing of the PPE.

- Have a "buddy" check your ensemble to ensure proper donning before entering controlled work areas. Without mirrors, the most obvious discrepancies can go unnoticed and may result in a potential exposure situation.

- Never perform personal decontamination with a pressure washer.

14.2 Medical Surveillance Requirements

All personnel must have completed the appropriate medical monitoring requirements as specified in 29 CFR 1910.120. Documentation of medical monitoring is the responsibility of each employer.

14.3 Engineering Control

The engineering control to prevent pedestrian/general population from exposure to hazards at the work site is Site Control.

14.3.1 Site Control Measures

Site controls establish the hazardous area perimeter and prevent access or exposure by unauthorized personnel or the public. The site map is attached to the Field Instructions and is incorporated as part of the HASP. The "buddy system" is to be used throughout those site operations that require it.

Site Entry Procedures: Notify property owner before mobilizing to the site.

Perimeter establishment/identification: Area of site east of the building will be work zone perimeter. See site map and field instructions attached.

An exclusion zone, contamination reduction zone and support zone will be identified for each site activity. The exclusion zone and contamination reduction zone are shown on the attached site map.

14.3.2 Emergency First Aid Procedures

If eye irritation, nausea, vomiting, dizziness, unusual odors or any other unusual mental or physical sensations are noticed, seek medical assistance.

Inhalation: Move person to fresh air, seek medical assistance.
Ingestion: Do not induce vomiting, seek medical attention.
Eyes: Flush with copious amounts of water.
Skin: Wash with soap and water.

15.0 AIR MONITORING REQUIREMENTS

Where SVOC's are present, all soil samples will be field screened for semi-volatile organics using a flame ionization detector (FID). During soil sample collection, it is expected that headspace gasses will be below the action level. However, during the course of soil sampling, if headspace gasses exceed 100 ppm, breathing zone monitoring will be conducted. If volatile gasses are detected in the breathing zone, the work activities work will stop and breathing zone gasses will be monitored using the FID or one of the other detectors outlined below. Further work may be conducted after elimination of all ignition sources, increasing the monitoring frequency, or elevating the level of PPE.

Instrumentation Available for Higher Level Air Monitoring:

INSTRUMENT	MANUFACTURER/MODEL*	SUBSTANCES DETECTED
Photo Ionization Detector (PID)	**RAE Systems mini-RAE Photovac Microtip HNu Model Hnu (10.2 eV Lamp)**	**Petroleum Hydrocarbons Organic Solvents**
Flame Ionization Detector (FID)	**Foxboro**	**Petroleum Hydrocarbons Organic Solvents**
Combustible Gas Indicator (CGI) May Be Combined with Individual or Multi-gas Detectors.	**TBD**	**Explosivity**
Individual Gas Detectors	**TBD**	**Oxygen (O_2) Carbon Monoxide (CO) Hydrogen Sulfide (H_2S) Cyanide Gases (CN^-)**
Particulate Monitor	**MIE Model PDM-3 mini-RAM**	**Aerosols, mist, dust, and fumes**
Colorimetric Detector Tubes	**Sensidyne Draeger**	**Benzene 0.5–10 ppm**

16.0 DECONTAMINATION PROCEDURES

Decontamination Procedures:

Contamination may result from walking through contaminated soils or liquids, splashing liquids during sampling, or use of or contact with contaminated equipment.

Decontamination procedures for the following tasks will be observed onsite:

- Soil Sampling: When a hand auger is used during soil sampling, it will be decontaminated with a detergent wash and distilled water rinse before and between sampling.

- PPE: All contaminated, disposable clothing will be properly bagged for disposal and left onsite for proper disposal. The PPE may be added to the soil drums for disposal.

17.0 WASTE STORAGE/DISPOSAL

Investigation-derived Material Disposal:

The purge and decontamination water, and disposable protective gear are to be placed in 55 - gallon drums, labeled and stored on site pending the receipt of the laboratory analysis. Free product and contaminated water must remain on-site until the proper disposal method is determined.

The drums of investigative waste will be hauled by a contractor who will be subject to the provisions of this site health and safety plan. Waste disposal will be performed in a manor appropriate to the waste characteristic identified by waste profiling.

17.1 Spill Containment Program

No anticipated spills or releases of hazardous chemicals are associated with this project. Any spills will be contained and drummed for proper disposal.

18.0 DOCUMENTS EXPECTED TO BE COMPLETED

The Site Safety Officer will maintain a master Site Health and Safety Plan which will be updated with the Daily Log (Section 11.0) and daily sign in sheets. In the event that site conditions warrant updating this Site Health and Safety Plan, updated sections will be appended to this plan. The master Site Health and Safety Plan will be archived in the project file at the offices of BCA for ten years following the end of the project.

Other documents which will be maintained include field books, boring logs, groundwater sampling sheets, contractor provided MSDSs, and correspondence.

19.0 APPROVALS

I, the undersigned, attest that I am familiar with the contents of this Health and Safety Plan and do agree to administrate the procedures described herein.

Plan Prepared by:_____ Date:_____

Plan Approved by:_____ Date:_____

Health and Safety Officer:_____ Date:_____

20.0 EMPLOYEE ACKNOWLEDGMENT

The designated BCA employee shall be responsible for informing all individuals entering the exclusion zone of the contents of this plan, and ensuring each person signs the employee acknowledgment form. By signing this form, individuals are recognizing the hazards present on site and the policies and procedures required to minimize exposure or adverse affects of these hazards.

I have read the site health and safety plan and have been briefed and fully understand all of the following aspects of the project:

Hazards associated with the project:

1. Personal protective equipment;
2. Emergency procedures/contacts;
3. Project team-member responsibilities; and,
4. Work zones and decontamination procedures.

I have undergone medical monitoring and have been respirator fit-tested in the last year.

Form must be signed each day on site.

Signature:_____ Date:_____

Signature:_____ Date:_____

Signature:_____ Date:_____

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Signature:_____ Date:_____

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MAPQUEST.

Trip to 2400 17th St

Columbus, IN 47201-5351
2.18 miles - about 5 minutes

Notes

53 Lafayette Ave, Columbus, IN 47201-6767

START	1. Start out going **north** on **Lafayette Ave** toward **1st St**.	go 0.1 mi
EAST 46	2. Turn **right** onto **2nd St / IN-46 E / IN-7 E**.	go 0.4 mi
	3. **2nd St / IN-46 E / IN-7 E** becomes **Central Ave**.	go 1.2 mi
	4. Turn **right** onto **17th St**.	go 0.4 mi
END	5. **2400 17TH ST** is on the **left**.	go 0.0 mi

2400 17th St, Columbus, IN 47201-5351

Total Travel Estimate : 2.18 miles - about 5 minutes

Start Map Hide

A: 53 Lafayette Ave, Columbus, IN 47201-6767

End Map Hide

B: 2400 17th St, Columbus, IN 47201-5351

Route Map Hide