

United States Environmental Protection Agency



**Black Leaf Chemical
Superfund Site
Public Meeting
November 10, 2011**

Site History

- From the 1920s until the 1950s, Tobacco By-Products and Chemical Corporation formulated nicotine-based insecticides under the trade name **“Black Leaf 40”**

HISTORICAL AD FOR "BLACK LEAF 40"



**"DAISIES
WON'T
TELL"**



**Black
Leaf
40**

OF COURSE daisies or any other flower can't tell you that "Black Leaf 40" means protection against the insect pests that damage and destroy. Experienced gardeners everywhere will tell you, however, that "Black Leaf 40" does

GUARD THE GARDEN

"Black Leaf 40" has a double killing action—by contact and also by fumes. It acts quickly. Economical, a little makes a lot of spray.

HAS MANY USES: Sprayed on shrubs and evergreens, "Black Leaf 40" keeps dogs away. Kills insects on vegetables and fruit. In the poultry house it kills lice and feather mites.

*Insist on original, factory-sealed packages, for full strength.
Sold by dealers everywhere.*

TOBACCO BY-PRODUCTS & CHEMICAL CORP.
INCORPORATED
LOUISVILLE, KENTUCKY

3608

Site History (Cont'd.)

In the 1950s 4 companies operated at the Site and formulated chlorinated pesticides such as DDT and benzene hexachloride (BHC)

- Tobacco By-Products
- Virginia Carolina Chemical Corp.
- Diamond Black Leaf
- Diamond Alkali Corp

Other Companies

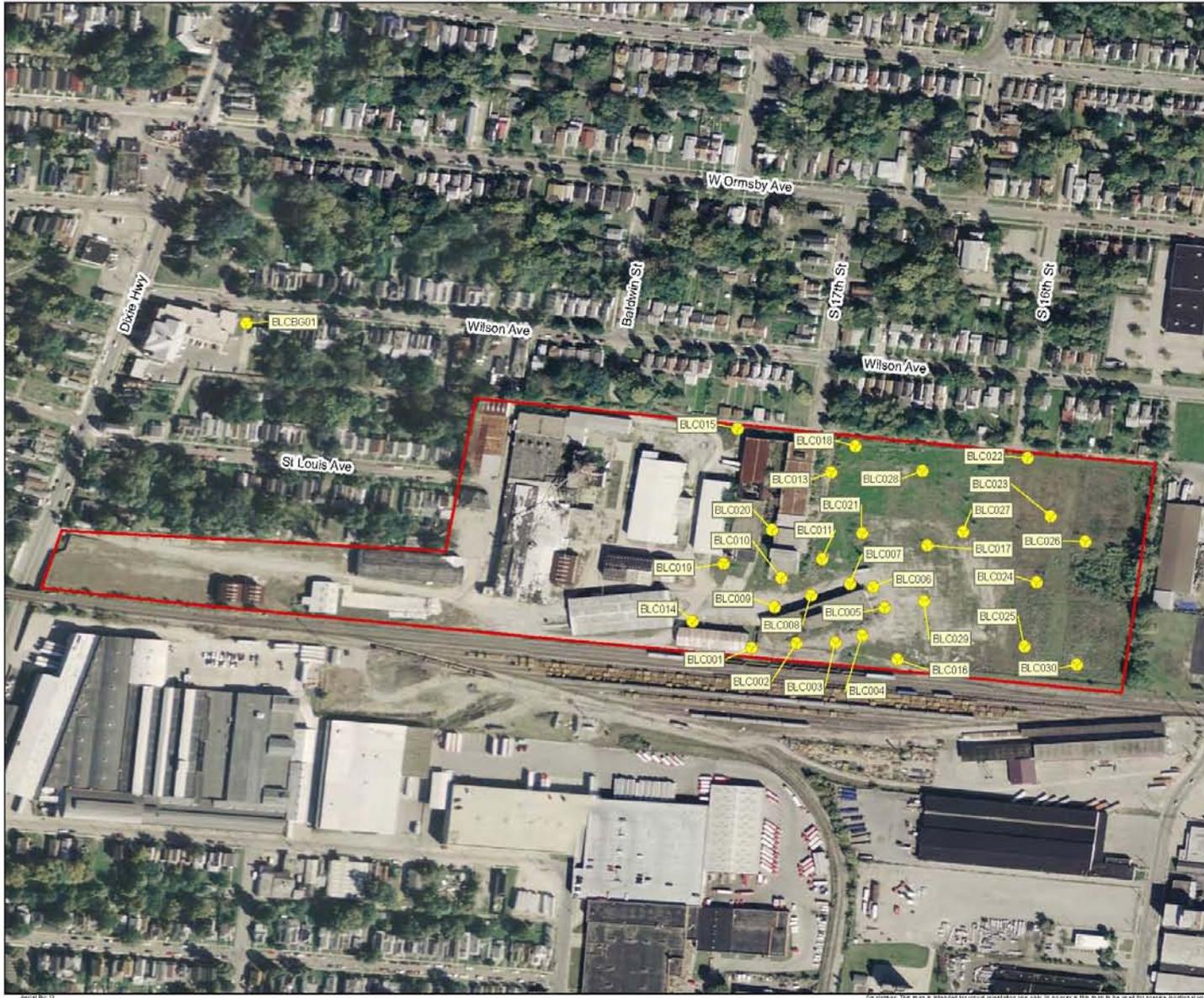
- 1959-1982 Schenley Distillers/Louisville Cooperage
- 1982-1987 Lanham Lumber & Dry Kiln Company
- 1987-1993 Dunaway/Louisville Hardwoods Inc.
- 1993-2001 Down River Forest Products
- 2001-present Louisville Industrial Park, LLC

Former Pesticide Plant



CHRONOLOGY OF ACTIVITIES

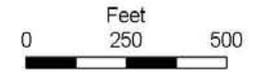
- October 2010 – EPA and KDEP conduct Site Investigation to identify whether contamination exists in on-site areas



Legend

- Site Boundary
- Soil Sample Location

Notes:
BLC - Black Leaf Chemical



United States Environmental Protection Agency

**BLACK LEAF CHEMICAL
LOUISVILLE
JEFFERSON COUNTY
KENTUCKY**
TDD No. TNA-05-003-0110

SAMPLE LOCATIONS MAP



Author: [unreadable] Date: [unreadable] This map is intended for visual orientation use only. In no way is this map to be used for precise locational use.

BACKGROUND SAMPLE LOCATION



OCTOBER 2010 ON-SITE SAMPLING ACTIVITIES

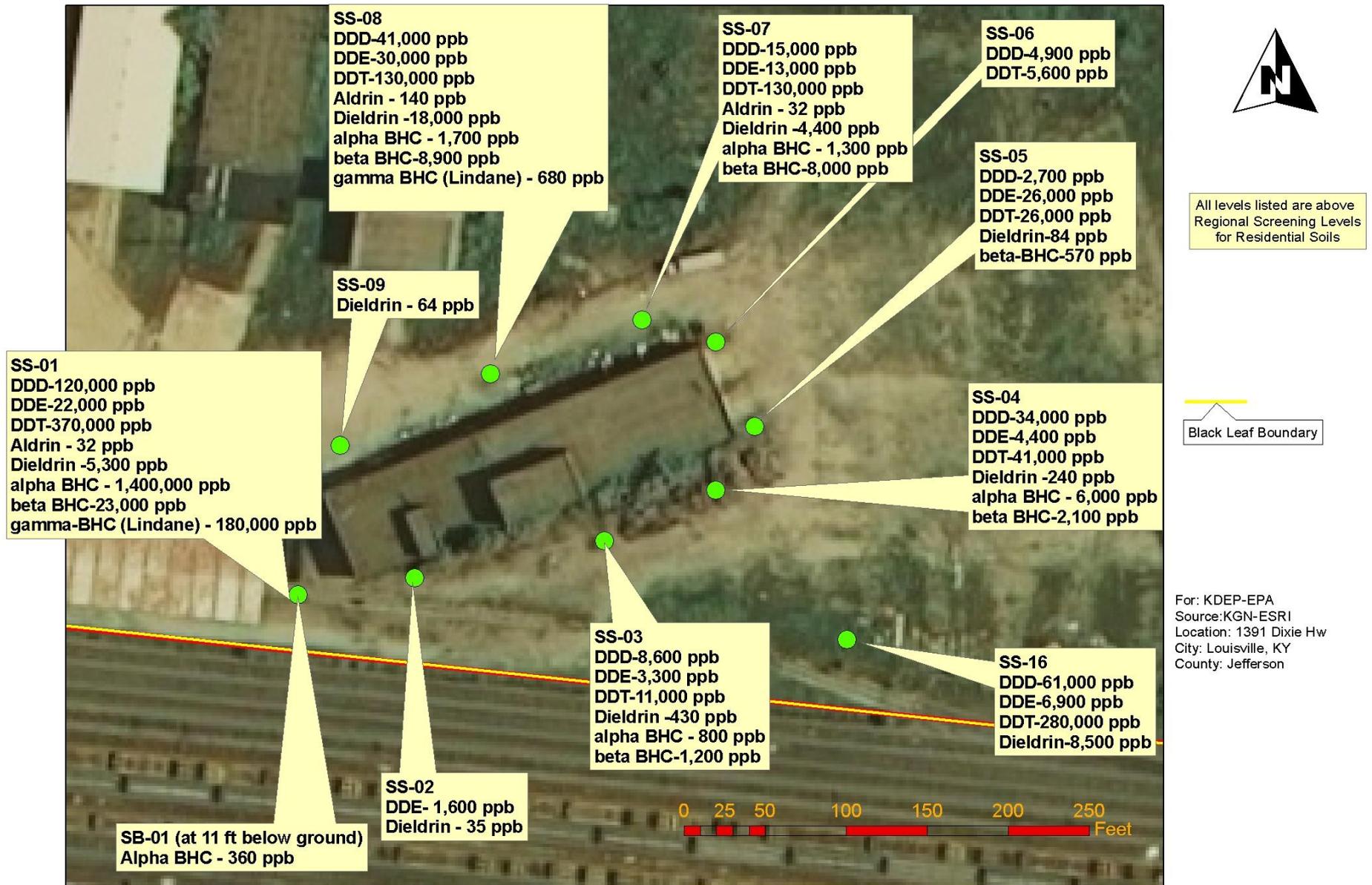


CHRONOLOGY OF ACTIVITIES

- February 2011 – Draft Report published documenting elevated levels of chlorinated pesticides in on-site areas
 - DDT and DDD, Alpha-BHC, Gamma-BHC (Lindane), and Dieldrin
 - Arsenic, Lead, and Polycyclic Aromatic Hydrocarbons (PAHs) also present above background

Figure 5

Black Leaf Chemical--Pesticide Results Map Manufacturing Building Area



CHRONOLOGY OF ACTIVITIES

- August 2011 – KDEP formally refers Site to EPA Region 4 Removal Program for action citing:
 - Proximity to residential areas
 - Evidence of trespassing
 - Inability to secure premises

SITE CONDITIONS AUGUST 2011



SITE CONDITIONS AUGUST 2011



MANUFACTURING BUILDING



MANUFACTURING BUILDING



CHRONOLOGY OF ACTIVITIES

- August 2011 – EPA initiates time-critical removal action designed to :
 - Secure entrances to deter trespassers
 - Post signs warning of contamination in onsite areas
 - Collect samples in the alleyways to see if contamination has migrated from the Site

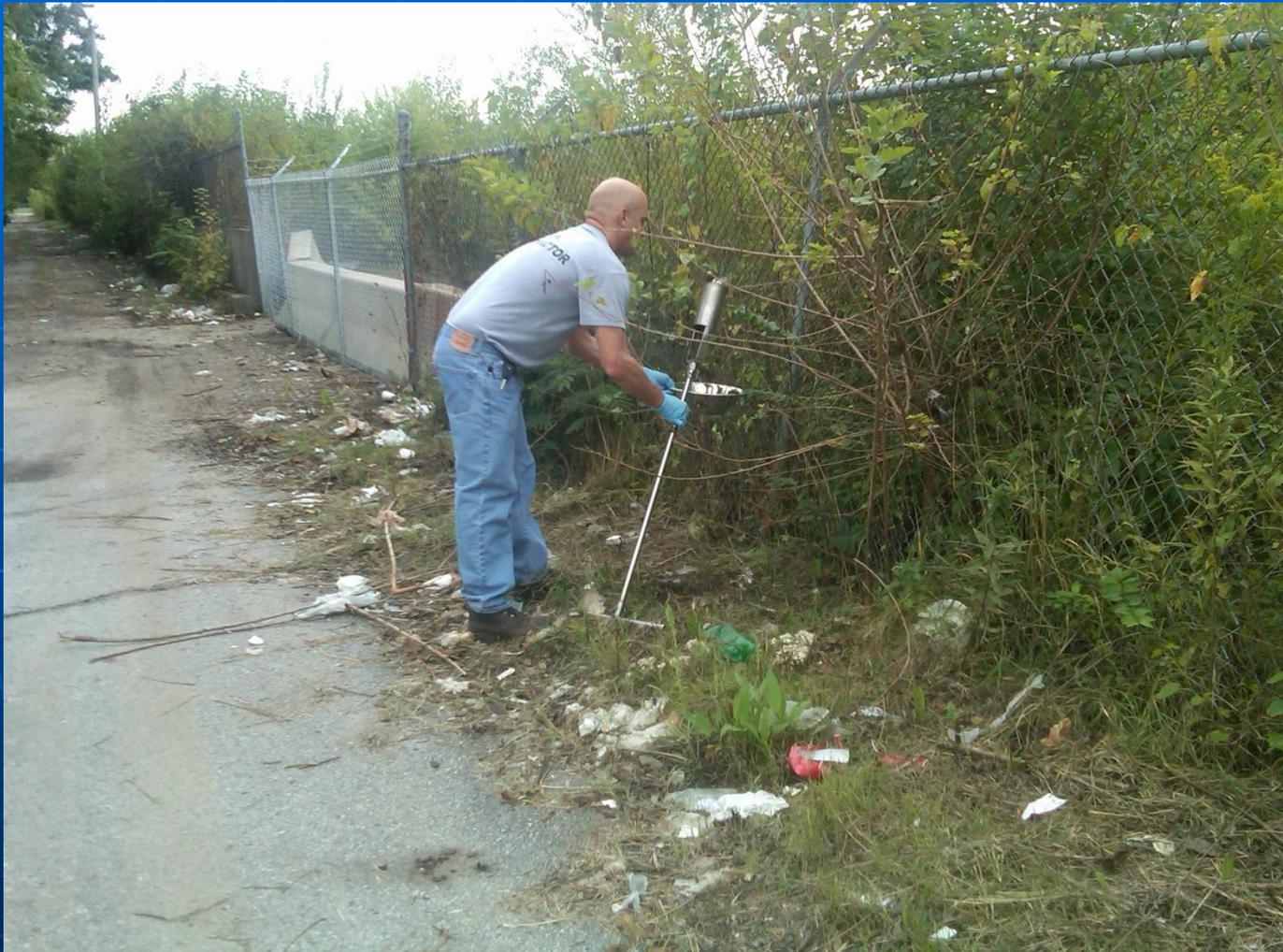
SITE SECURITY IMPROVEMENTS



SITE SECURITY IMPROVEMENTS



OCTOBER 2011 OFF-SITE SOIL SAMPLING



CHRONOLOGY OF ACTIVITIES

- November 2011 – Review of sample analyses indicates that soil contamination is found off-site which **exceeds EPA's Removal Action Levels (RALs)** for Arsenic and Lead:
 - Arsenic and Lead are also found onsite
 - possibly connected with use of lead arsenate
 - Pesticides are at trace concentrations and are below RALs

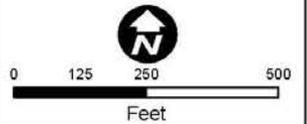
Arsenic Levels



AERIAL SOURCE: BING MAPS HYBRID DATA

Legend

-  Site Boundary
-  Arsenic at or below background
-  Arsenic above Regional Screening Levels but below Removal Action Limits
-  Arsenic above Removal Action Limits



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**FIGURE 1
ARSENIC LEVELS**



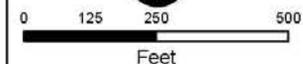
Lead Levels



AERIAL SOURCE: BING MAPS HYBRID DATA

Legend

-  Site Boundary
-  Lead below Regional Screening Level and Removal Action Limit
-  Lead above Regional Screening Level and Removal Action Limit



Louisville,
Jefferson County,
Kentucky

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**FIGURE 2
LEAD LEVELS**



Pesticide Levels



AERIAL SOURCE: BING MAPS HYBRID DATA

Legend

- Site Boundary
- Pesticides below Regional Screening Levels
- Pesticides above Regional Screening Levels but below Removal Action Limits
- Pesticides above Removal Action Limits

0 125 250 500
Feet



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**FIGURE 3
PESTICIDE LEVELS**

OTIE
Owens Total Integrated Enterprise

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PAH Levels



AERIAL SOURCE: BING MAPS HYBRID DATA

Legend

-  Site Boundary
-  PAH below Regional Screening Levels
-  PAH above Regional Screening Levels but below Removal Action Limits

Notes:
PAH = Polynuclear Aromatic Hydrocarbons





0 125 250 500
Feet



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**FIGURE 4
PAH LEVELS**

 **OTIE**
Owens Total Integrated Enterprise

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PLANNED FUTURE EPA ACTIVITIES

- Obtain residential access agreements
- Conduct off-site residential soil sampling to assess contamination
- Conduct a search for the Responsible Parties to cleanup the site
- Cleanup on-site and residential properties, if applicable