



# EPA Investigates Former Lead Smelting Facility near Red Hook Ball Fields; Cleanup Required

Community Update

March 2015

## WHAT IS SECONDARY LEAD SMELTING?

Secondary lead smelting plants refine scrap or used lead materials into metallic lead of a higher purity. Such materials can include the lead plates from batteries, lead pipe or metal sheets that contain lead.

Secondary smelting can be responsible for releasing lead into the surrounding environment through lead fume emissions. Lead dust and smoke can be released during the smelting process, and slag contaminated with lead may be left over after the smelting process.

## WHY IS LEAD A PROBLEM?

Lead is a toxic metal that was used for many years in paint and leaded gasoline. Lead poisoning can cause a number of harmful health effects, particularly in children under the age of six.

Exposure to lead in soil can occur when children play in the dirt and put their hands or dusty toys in their mouths. Lead can also get into your body by breathing or swallowing lead dust, or by eating soil containing lead.

The U.S. Environmental Protection Agency is investigating lead contamination associated with the former Columbia Smelting & Refining Works Site (Columbia). Columbia, which was located at the corner of Hicks and Lorraine Streets in Brooklyn, NY, operated as a secondary smelter from the 1920s through the late 1930s. By 1940, the smelter was demolished. The block then became four baseball fields and two cricket courts which are part of Red Hook Park. EPA's investigation of this location is occurring due to the discovery of the former facility and is not related to any other previously investigated site, Hurricane Sandy, or known health problems.

## SITE INVESTIGATION

In October 2014, the EPA sampled soil on the block bordered by Lorraine, Hicks, Henry and Bay Streets and several surrounding areas, including the Red Hook Houses. Samples were analyzed for metals and the results showed that lead levels in the soil samples were elevated above health-based values in many locations at varying depths throughout the sampling area. The highest lead levels were detected more than an inch below the ground surface. While elevated lead levels at the ground surface are not an immediate health threat, EPA believes that further efforts to reduce the soil exposure are appropriate on the ball fields. New York City Department of Parks and Recreation (NYC Parks)'s routine resurfacing of the infields and maintenance of the grass cover help to reduce exposure to lead in soil. EPA will work with NYC Parks to develop additional interim measures to minimize exposure to lead in soil while a cleanup is planned.

Further analysis of the results showed that the elevated levels of lead and other metals near the footprint of the former facility and along Henry Street are typical of emissions from a smelting operation and likely came from the former Columbia facility. EPA is now conducting more sampling within Red Hook Park to determine the extent of lead contamination from the former facility that may have impacted the park.

Soil samples taken in October 2014 from grassy fenced areas within the Red Hook East Houses, which are not play areas, also showed elevated surface lead levels and higher lead detections below the surface, but contact with the higher lead levels is unlikely unless residents dig into the ground. Further analysis of these samples indicated that the lead could not be linked to the historic Columbia facility, and it will not be further investigated by the EPA at this time. Other sources of lead such as lead-based paint, automobile emissions from leaded gasoline and fill material that may have been used during construction may be the source of lead in these samples.

**If you would like information about the site please contact:**

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**If you would like information on other environmental concerns or the Superfund hazardous waste program contact:**

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**Visit the EPA's website at:**

<https://www3.epa.gov/region02/superfund/removal/columbia/>

## WHERE WILL EPA SAMPLE?

In March 2015, the EPA will collect more soil samples throughout the block where the Columbia facility once stood to further define the contaminated areas. Several other athletic fields and high-traffic areas of Red Hook Park will also be screened. This will include sampling of all the fields along Bay Street. Soil samples will be analyzed for lead and other metals to determine if the historic facility contaminated other areas of Red Hook Park.

## NEXT STEPS AND CLEANUP PLANS

Once sampling results come back in spring 2015, the EPA will determine if contamination from the former Columbia operations extend beyond Henry Street throughout Red Hook Park. Additional soil sampling may be necessary. Once the contaminated areas are better defined, a cleanup will be conducted by the EPA or the New York City Department of Parks and Recreation (NYC Parks) to address the impacts from the former smelter. Planning for and designing the cleanup will likely take about a year and updates will be provided.

In the meantime, EPA and NYC Parks will be working together to further reduce the risk of potential exposure to soil from areas of the park impacted by the Columbia facility. NYC Parks will also continue conducting routine maintenance and enhanced inspections to keep up the grass cover and reduce contact with lead in soil. EPA and NYC Parks are coordinating all activities.

## HOW WILL I GET THE RESULTS OF THE INVESTIGATION?

Once EPA receives sampling results and determines the next steps, EPA will provide updates on the status of additional sampling and cleanup efforts. EPA will be available to explain the sampling results and answer questions.

## SIMPLE STEPS TO REDUCE YOUR LEAD EXPOSURE

The following steps are recommended to reduce your potential exposure to lead contamination that may be present in urban soils.

- Remove shoes at the door before entering your home to prevent tracking in any dirt that may be on your shoes. Clean the bottom of your shoes with a wet wipe or paper towel.
- Wash your hands and face after visiting these ball fields and always before eating, drinking, or smoking.
- Avoid digging into or disturbing soil below the surface of the ball fields.

*A view of the block found to be impacted by lead from the historic Columbia facility.*

