



DEPARTMENT OF ENVIRONMENTAL PROTECTION REPORT SUMMARY - PALMERTON SOIL SAMPLING

On July 31, 2018 the Agency for Toxic Substances & Disease Registry (ATSDR) issued a health consultation report for the American Zinc Recycling (AZR) Facility in Palmerton, Carbon County. The report focused on airborne lead and particle deposition related to the AZR facility. It concluded that a public health hazard is likely for young children and/or pregnant women living within 3 miles of AZR. Due to modeling results, the report indicated that they could experience long-term health problems from exposure to lead in the outdoor air.

One of the recommendations was for environmental agencies to conduct soil sampling. The Department of Environmental Protection (DEP) finalized a soil sampling and analysis plan with input from ATSDR, EPA and the PA Department of Health (PADOH) on September 27th, 2018. The plan identified sampling locations such as schools, day care facilities, parks, and public areas where children are known to frequent. DEP presented the sampling plan at an October 2, 2018 public meeting in Palmerton.

SAMPLING PLAN: On October 16 and 17, 2018, DEP, EPA and ATSDR screened the soil with the X-ray Fluorescence (XRF), which is an x-ray instrument used for non-destructive chemical analyses of rocks, minerals, sediments and fluids. The agencies collected soil samples from 10-20% of those XRF locations. A total of 141 XRF scans for lead, cadmium, chromium, zinc, nickel, and copper were completed at 10 different properties, and 18 traditional soil samples and 4 duplicates were collected from those 141 XRF sampling locations. The samples were sent to DEP's Bureau of Laboratories in Harrisburg for analysis of lead, cadmium, chromium (total and hexavalent), zinc, nickel, and copper.

RESULTS: Exceedances of the Statewide Health Standards were observed in **3 of the 18 soil samples: 2 samples** collected from **Palmerton Borough Park** found total lead and total cadmium that that exceeded Statewide Health Standards, and **1 sample** collected from **West End Day Care** found total lead, total cadmium, and total zinc that that exceeded Statewide Health Standards. Sample results were mailed to all property owners on December 17, 2018. After collaborating with ATSDR, EPA and the PADOH, DEP finalized the "XRF Soil Screening and Surface Sampling Report" on December 18, 2018. A copy of this report is available on DEP's Northeast Regional Office Community Information Page at the following link.
<https://www.dep.pa.gov/About/Regional/Northeast-Regional-Office/Pages/default.aspx>

FUTURE SAMPLING: Based on the XRF soil screening results and the surface soil sampling results, additional soil sampling is recommended within and adjacent to Palmerton Borough Park and West End Day Care. Additionally, since the high moisture content in the soil may have caused or biased the XRF results to be low, additional sampling may be warranted.

