



**US Army Corps
of Engineers®**
St. Louis District

St. Louis Sites Summary of Findings

PRELIMINARY RESULTS OF JANA ELEMENTARY



Cleanup activities at the St. Louis Sites are part of a nationwide U.S. Army Corps of Engineers (USACE) environmental program known as the Formerly Utilized Sites Remedial Action Program (FUSRAP). FUSRAP in St. Louis includes four Missouri sites (SLDS, SLAPS, Latty, and SLAPS VPs).

These sites contain soils contaminated with radium, thorium, and uranium because of activities associated with the Manhattan Engineer District/Atomic Energy Commission (MED/AEC) during the nation's 1940s and 1950s atomic program. In 1946, the MED bought a 21.7-acre tract of land now known as the SLAPS to store residues and scrap from uranium processing at the Mallinckrodt facility in downtown St. Louis.

Surface-water transport from contaminated material at the SLAPS, the Latty Avenue Site, and haul roads adjacent to CWC was the main mechanism for contamination to enter CWC. Once contamination reached CWC, creek flow transported the contaminated material downstream.

USACE first eliminated the sources of contamination at SLAPS and HISS. The selected remedy for the North St. Louis County Sites is excavation of contaminated soil to meet the remediation goals.

USACE has preliminary results of the expanded FUSRAP testing of Jana Elementary School that started on Monday, October 24, 2022. Results indicated no presence of radioactive material or contamination above the expected range of background levels (the level of radioactivity Mother Nature already provides). The analysis of the outdoor soil sampling is still pending.

The structure investigations included scanning accessible surfaces and fixed-point measurements with radiation detection instruments.

Scan tests of accessible floor area, walls, furniture, countertops, exterior pavement, a walkway, exterior walls, and playground equipment resulted in nearly 1,000 samples, readings, and swipes. Laboratory analysis of these samples were tested for isotopic uranium, thorium, and radium (contaminants of concern) but also lead (Pb)-210. The type of measurement and associated results are summarized in the table below.

Radiological Testing Preliminary Results Summary	
Type of Measurement	Results
Scan surveys of accessible floor area, walls, furniture, countertops, exterior pavement, a walkway, exterior walls and playground equipment	No results above expected background levels
461 direct total activity fixed readings	No results above expected background levels
461 removable activity swipes for gross alpha beta, counted at FUSRAP laboratory	No results above expected background levels
4 pavement sediment samples sent to FUSRAP laboratory for isotopic radium, thorium and uranium	No results above expected background levels
19 swipes counted at Test America laboratory for Lead-210	No results above expected background levels
5 dust samples sent to FUSRAP laboratory for isotopic radium, thorium and uranium	No results above expected background levels

To learn more about FUSRAP, contact the FUSRAP Project Office at 314-260-3905 or, via email, at STLFUSRAP@usace.army.mil.

The information on page 2 provides additional detail about the types and locations of sampling within the Building Interior and Exterior.

INVESTIGATIONS OF BUILDING AND EXTERIOR

Building Interior

1st Story Floors: Scan surveys were performed on 100% of the accessible floor area. Additionally, there were 50 random testing locations and 51 biased locations. A total activity fixed measurement and swipe were collected at each location.

1st Story Lower Walls/Furniture/Counters: Scan surveys were performed in 2 square meters around each random testing location. There were 50 random locations and 37 biased locations. A total activity fixed measurement and swipe were collected at each location.

2nd Story Floors: Scan surveys were performed in 2 square meters around each random testing location. There were 20 random locations and 2 biased locations on the 2nd floor. A total activity fixed-point measurement and swipe were collected at each location.

2nd Story Lower Walls/Furniture/Counters: Scan surveys were performed in 2 square meters around each random testing location. There were 20 random locations and 4 biased locations on the second story. A total activity fixed-point measurement and swipe were collected at each location.

Exterior

Pavement: Scan surveys were performed in 2 square meters around each random location. There were 80 random locations and 50 biased locations on the exterior pavement. A total activity fixed-point measurement and swipe were collected at each location.

Walkway: Scan surveys were performed in 2 square meters around each random testing location. There were 10 random locations and 4 biased locations on the exterior walkway. A total activity fixed-point measurement and swipe were collected at each location.

Lower Building Walls: Scan surveys were performed in 2 square meters around each random testing location. There were 50 random locations and 7 biased locations on the exterior lower walls below 2 meters. A total activity fixed-point measurement and swipe were collected at each location.

Playground Equipment: Scan surveys were performed in 2 square meters around each random testing location. There were 20 random locations and 5 biased locations on various playground equipment. A total activity fixed-point measurement and swipe were collected at each location.

Indoor Dust and Outdoor Pavement Sediment: Five indoor testing locations had dust samples collected which were sent to the FUSRAP laboratory for isotopic radium, thorium and uranium analysis. Four pavement sediment samples were collected from outdoor surface locations. Three of the four outdoor pavement sediment samples had sufficient volume to split. Therefore, four of those samples were sent for isotopic radium, thorium, and uranium testing at the FUSRAP USACE Laboratory and three samples were sent to an offsite laboratory for Pb-210 analysis.

Jana Elementary School Preliminary Results

November 2022

What We Found:

- From a radiological standpoint, the school is safe.
- Preliminary results show no presence of radioactive material above the expected range of background levels (the level of radioactivity Mother Nature already provides).
- The preliminary results will not change. The only thing that will change is the amount of data we have to analyze the results.



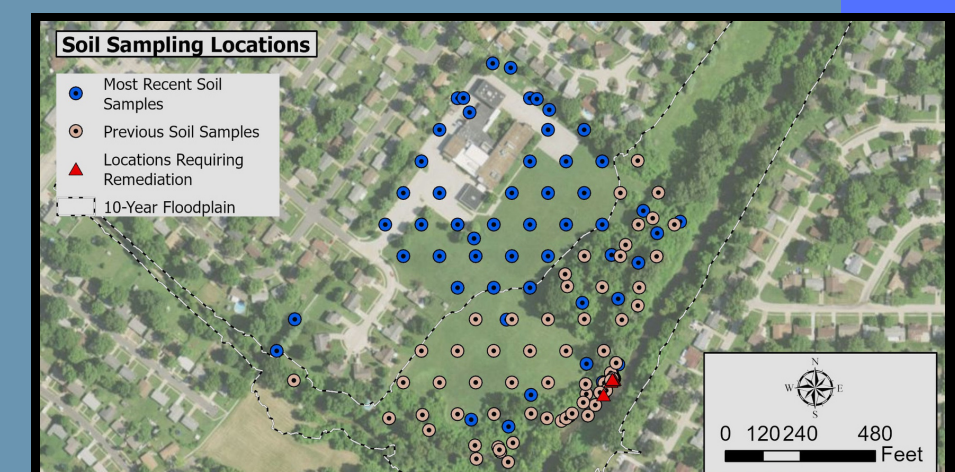
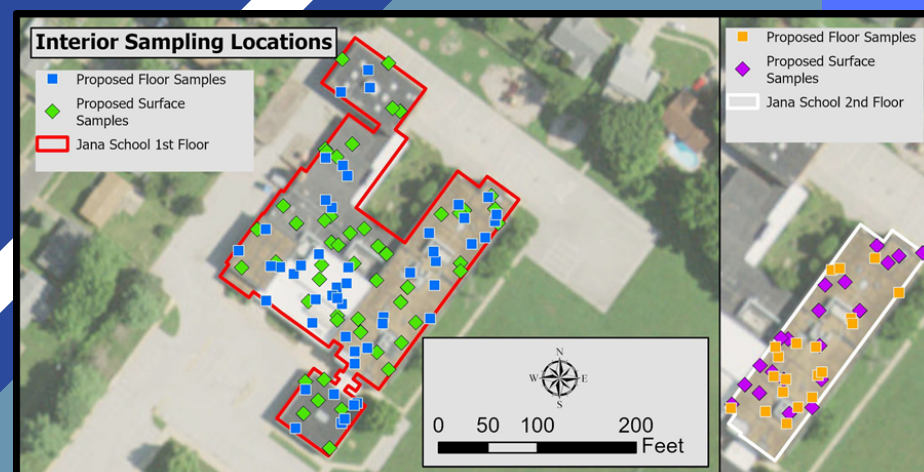
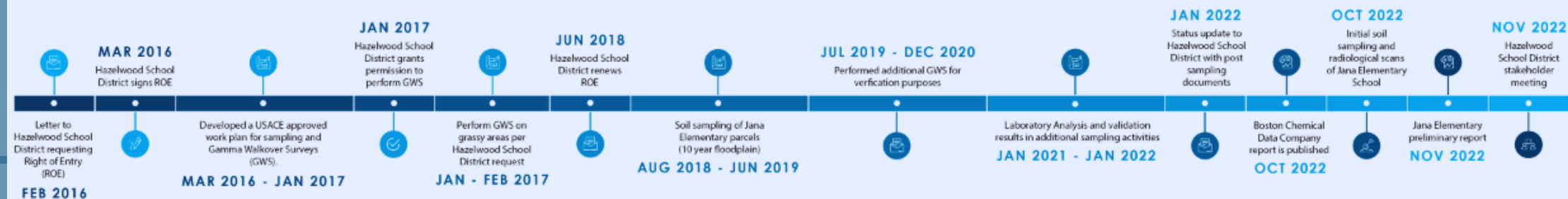
Way Ahead:

- Public meeting Nov. 16.
- Final results/data available in 2-3 months.
- Department of Energy peer review of preliminary results in 2-4 weeks.
- A complete data summary report will be written and posted to the St. Louis District's FUSRAP webpage.
- Our work here is not done. Remediation is scheduled for the summer of 2023 at the sites where contamination was previously found.

Preliminary Results Summary:

No Results Found Above Background Level Range

- Scan surveys of accessible floor area, walls, furniture, countertops, exterior pavement, a walkway, exterior walls and playground equipment, and grassy areas.
- 461 direct total activity fixed readings.
- 461 removable activity smears for gross alpha beta, counted at FUSRAP laboratory.
- 4 pavement sediment samples sent to FUSRAP laboratory for isotopic Radium, Thorium and Uranium.
- 5 dust samples sent to FUSRAP laboratory for isotopic Radium, Thorium and Uranium.
- 19 swipes counted at Test America laboratory for Lead-210.



US Army Corps of Engineers