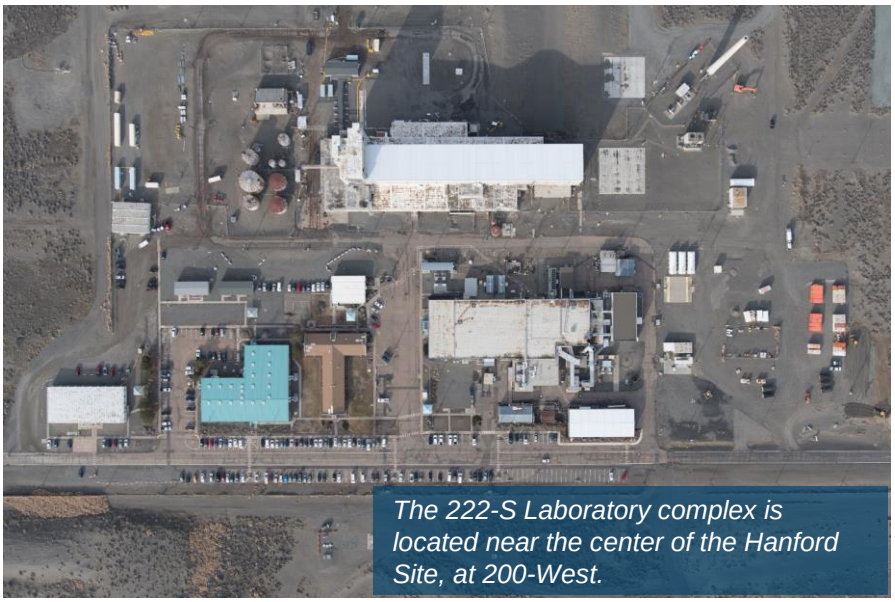
THE HANFORD SITE

222-S Laboratory Complex

Fact Sheet – August 2021



The 222-S Laboratory complex is located near the center of the Hanford Site, at 200-West.

222-S Laboratory Overview

The 222-S Laboratory is the primary on-site lab for analysis of highly radioactive samples in support of all Hanford projects.

Hanford Laboratory Management and Integration, LLC (HLMI) has the sole responsibility to operate, manage and maintain the laboratory. Analyses are performed on a wide variety of air, liquid, soil, sludge and biological samples.

The Laboratory studies the physical and chemical characteristics of waste necessary to ensure safe storage and enable waste retrievals, provides data to support tank closure requirements, and supports the Vadose Zone Program, which tests for potential threats to groundwater.

HLMI is also committed to meeting the needs of the Direct-Feed Low-Activity Waste (DFLAW) mission. During DFLAW operations, the 222-S Laboratory staff will characterize tank waste to ensure it is suitable to be treated for vitrification -- immobilization in glass. In this glass form, the waste is stable and impervious to the environment, and its radioactivity will safely dissipate over hundreds to thousands of years.

Seen above: Hot Cells allow the laboratory to remotely handle and analyze radioactive samples to reduce health and safety risks to technicians

222-S Laboratory Quick Facts

HISTORY: Operations began in 1951 in support of plutonium and uranium production processes for nation's defense

FACILITY: The 222-S Laboratory is a 70,000-square-foot facility, with several support buildings

EQUIPMENT: The Lab contains over 100 pieces of analytical equipment, 156 fume hoods and 11 hot cells equipped with 46 mechanical manipulators

Email questions and comments to HLMICommunications@rl.gov

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