



Los Alamos National Laboratory Chromium Plume Fact Sheet



CAMPAIGN:
Chromium Interim Measure and Characterization

LOCATION:
Beneath Sandia and Mortandad canyons at Los Alamos National Laboratory (LANL)

CONTAMINANT OF CONCERN:
Hexavalent chromium

PROJECT GOAL:
Control migration of the chromium plume and reduce the plume footprint, while investigating the final remedy

ESTIMATED COMPLETION:
2020-2022

HISTORY

From 1956 to 1972, workers at a non-nuclear power plant at LANL periodically flushed chromium-contaminated water from the cooling towers into Sandia Canyon. Chromium was commonly used as a corrosion inhibitor. The water flowed down Sandia Canyon as surface water, penetrated the underlying rock layers, and in time seeped into the regional aquifer beneath Sandia and Mortandad canyons. LANL ceased releasing chromium-contaminated water in 1972.

PROJECT STATUS AS OF SEPTEMBER 2018

- Implementing the Interim Measure along the southern edge of the chromium plume
- Preparing to implement the remaining portion of the IM along the eastern edge of the plume
- Evaluating final remedy options

BY THE NUMBERS

50 parts per billion

New Mexico hexavalent chromium groundwater standard

2 years

Approximate time it will take the IM to fully control the plume within the LANL boundary

1 mile long x ½ mile wide x 50-75 ft. thick > 50ppb

Approximate size of the chromium plume

¼ mile

Approximate distance from the plume edge to the nearest Los Alamos County groundwater well

900-1,000 feet

Depth of the regional aquifer. Chromium is located within the top 100 feet of the aquifer

5 miles

Distance (as measured at the surface) of the plume from the Rio Grande

35

Number of monitoring, extraction and injection wells installed in and around the plume

0

Amount of chromium contamination in Los Alamos County drinking water wells



Produced by Los Alamos Legacy Cleanup Contractor, N3B Los Alamos, on behalf of DOE's Environmental Management Los Alamos Field Office

CHROMIUM INTERIM MEASURE AT A GLANCE

An interim measure is a set of actions that have a high probability of meeting environmental protection goals until a final remedy is implemented. In the case of the chromium plume, a combination of extraction, treatment, and injection is being used to control plume migration and hold it within the LANL boundary.

WHY IT'S NEEDED

The Interim Measure, approved by the New Mexico Environment Department, is needed to address plume growth.

WHAT IT IS

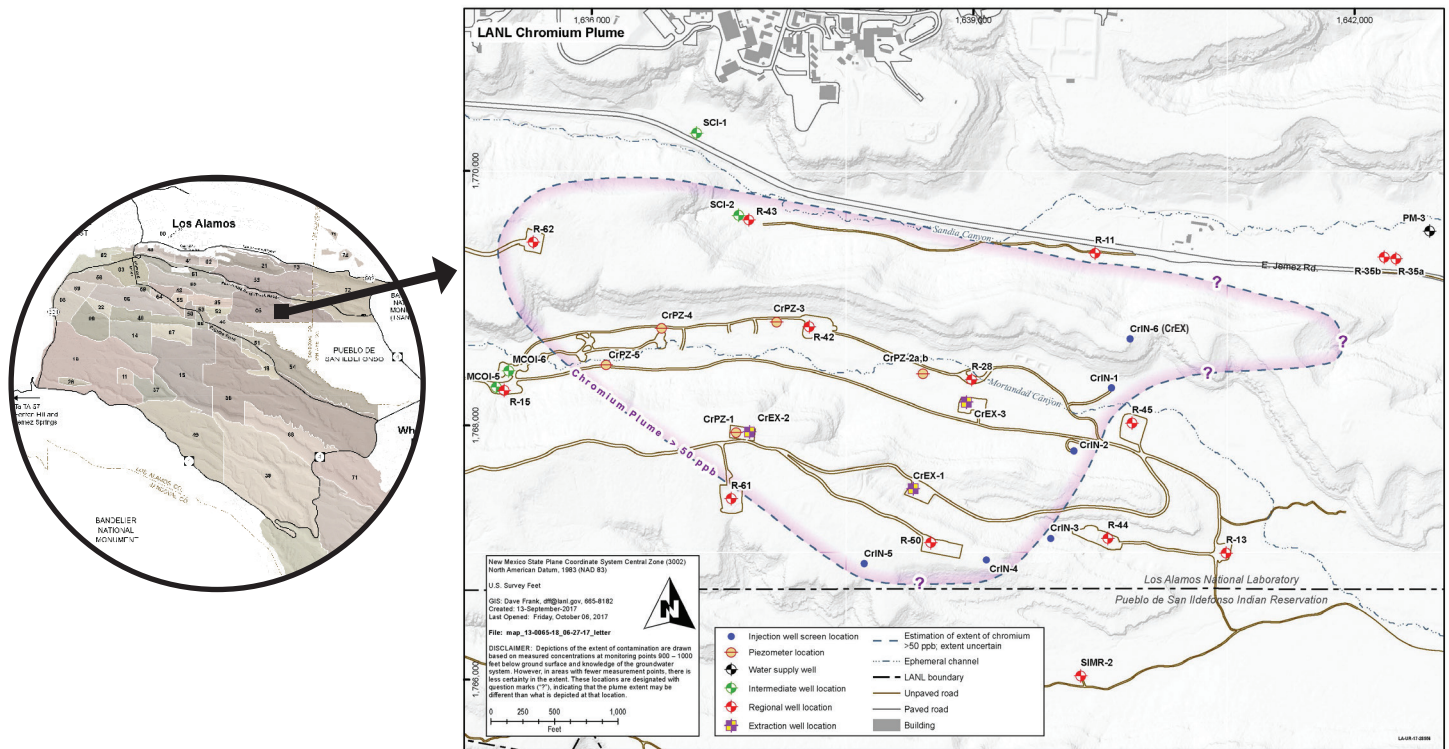
The Interim Measure consists of extraction and injection wells, a centrally located treatment system, and piping and infrastructure tying it all together.

HOW IT WORKS

Contaminated water is extracted and treated. The treated water is then injected along the plume edge. Chromium concentrations will be reduced at the plume edge and the plume footprint will be reduced in size.

WHAT'S NEXT

The Interim Measure will take place over the next several years until a final remedy has been identified and implemented. Optimization will include converting injection well CrIN-6 to an extraction well in early fiscal year 2019.



FINAL REMEDY

DOE's Environmental Management Los Alamos Field Office and its contractor, N3B, are investigating potential remedy options for remediating the plume. Public review and comment is integral to the decision-making process.

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