

# Resistivity Survey at the Hanford Site, Richland, Washington

As part of a geophysical survey, the SuperSting R8 instrument was used to record 19 line kilometers of electrical high resolution resistivity (HRR) data at the Hanford Site in Richland, Washington, USA.

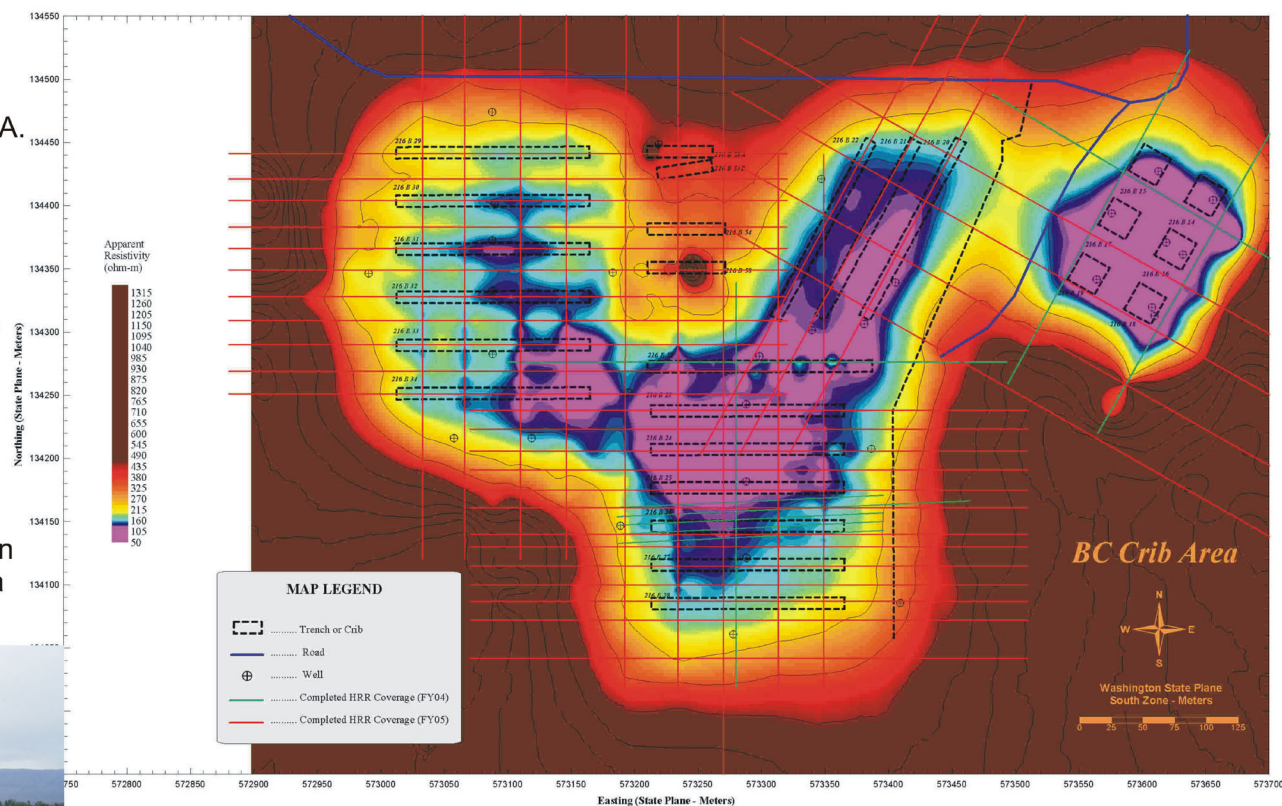
The purpose of the investigation was to delineate the edges of a plume containing radiological and heavy metal constituents beneath disposal trenches and cribs, where liquid radioactive mixed waste from the processing of uranium had been disposed of.

The plume's electrical signature, on the order of 50 - 250  $\Omega$ -meter, was shown to spread laterally beyond the edges of the trenches or cribs and vertically to rest upon a hydraulically resistive silty clay layer at a depth of 42 meters below ground surface.



*The SuperSting at work at the desolate Hanford site*

Data, courtesy of  
**Pacific Northwest National Laboratory**  
and  
**hydroGEOPHYSICS, Inc.**  
Tucson, Arizona, USA



*The map shows the apparent resistivity at a depth of 32 meter (105 ft).*

**Objective:** To delineate a plume containing radiological and heavy metal constituents

**Survey date:** 2004 - 2005

**Survey site:** The Hanford Site, Richland, Washington, USA

**Instrument:** SuperSting R8/IP with 72 electrodes at 2 meter spacing

**Method:** Pole-pole electrode array using roll-along with 12 electrodes at a time

**Processing:** HGIPro proprietary software developed by HGI



SuperSting 8-channel Resistivity Instrument  
by

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