

About PHOENIX

The Department of Energy has partnered with the Pacific Northwest National Laboratory on PHOENIX, a family of spatially enabled web applications providing quick access to decades of valuable scientific data and insight through intuitive query, visualization, and analysis tools.

PNNL-Hanford Online ENvironmental Information eXchange provides a single access point to multiple data sets via standard web browsers. PHOENIX also provides data visualization tools and provides explanations of key data sets to aid understanding. PHOENIX applications are based on the innovative technology applied by the Pacific Northwest National Laboratory (PNNL) to access and visualize other environmental data sets at the Hanford Site.

By integrating previously isolated datasets and developing relevant visualization and analysis tools, PHOENIX applications are enabling DOE to discover new correlations hidden in legacy data, allowing them to more effectively address complex issues at Hanford.

About Groundwater Well Explorer

The Groundwater Well Explorer application seeks to provide the most simple and intuitive application possible for obtaining groundwater concentration data through a map interface. Users can click wells displayed on a map of the Hanford site to see charts concentrations over time for the most common contaminants of interest. Users can select which contaminants to view and the concentration series are superimposed for quick comparison. The application also features a search function, allowing users to find one or more wells based on one or more characters in the name.

Questions, Comments, Concerns, Feedback?

Contact the PHOENIX team: PHOENIX@pnnl.gov

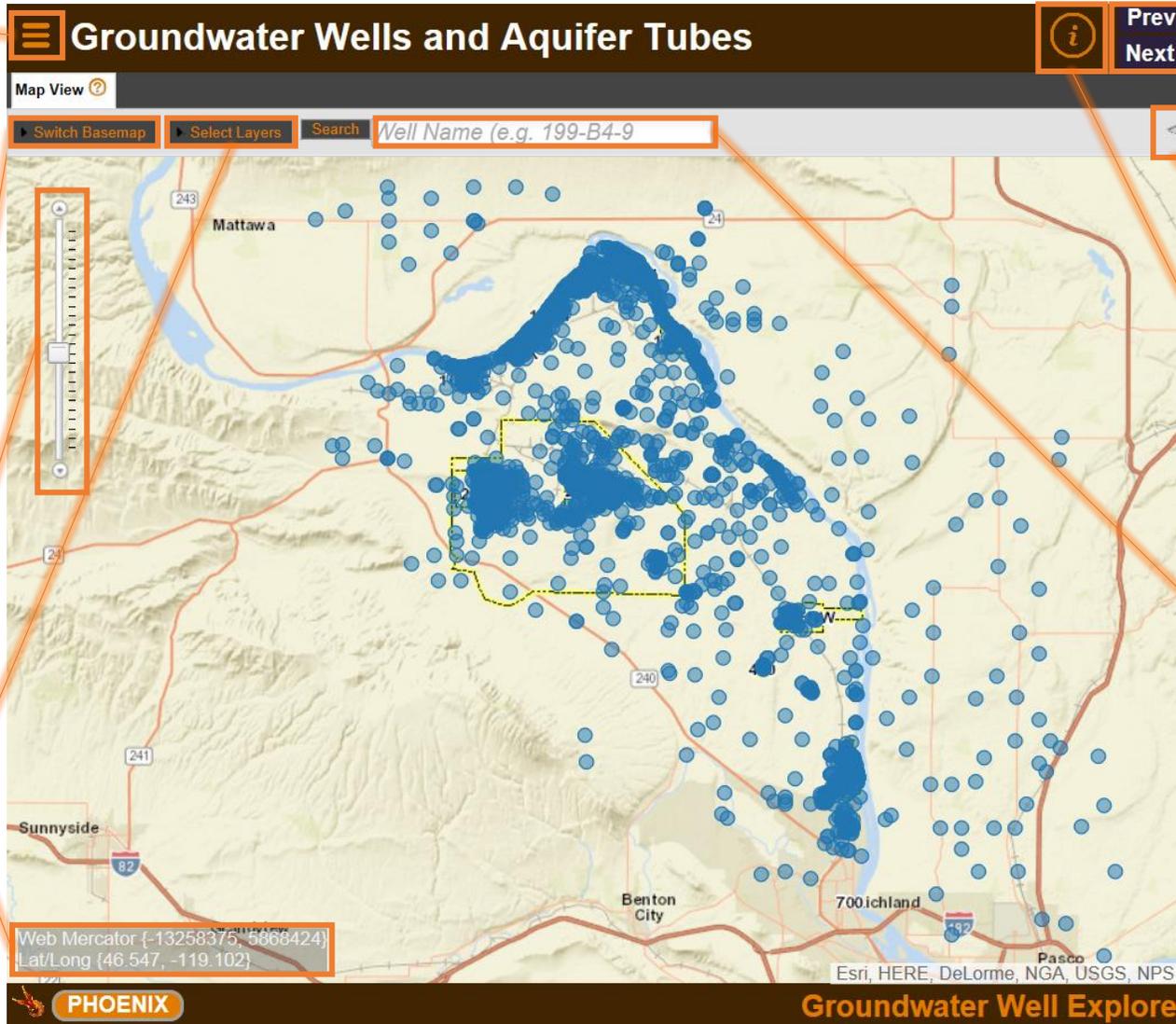
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Click to access the PHOENIX Menu



Move to a previously accessed application, or send the current well list to another application.

Click to open the well concentration charts (more information on the next slide).

Help on the Groundwater Well Explorer with details about the Map View and Groundwater data.

Search for wells by name. Search will work on complete names (e.g., 199-D4-84) or any part of a name (e.g., D4). Click **Search** to zoom in to the area containing the wells you have searched for. Only the resulting wells will be displayed on the map. All wells can be restored by clearing this box and clicking **Search**.

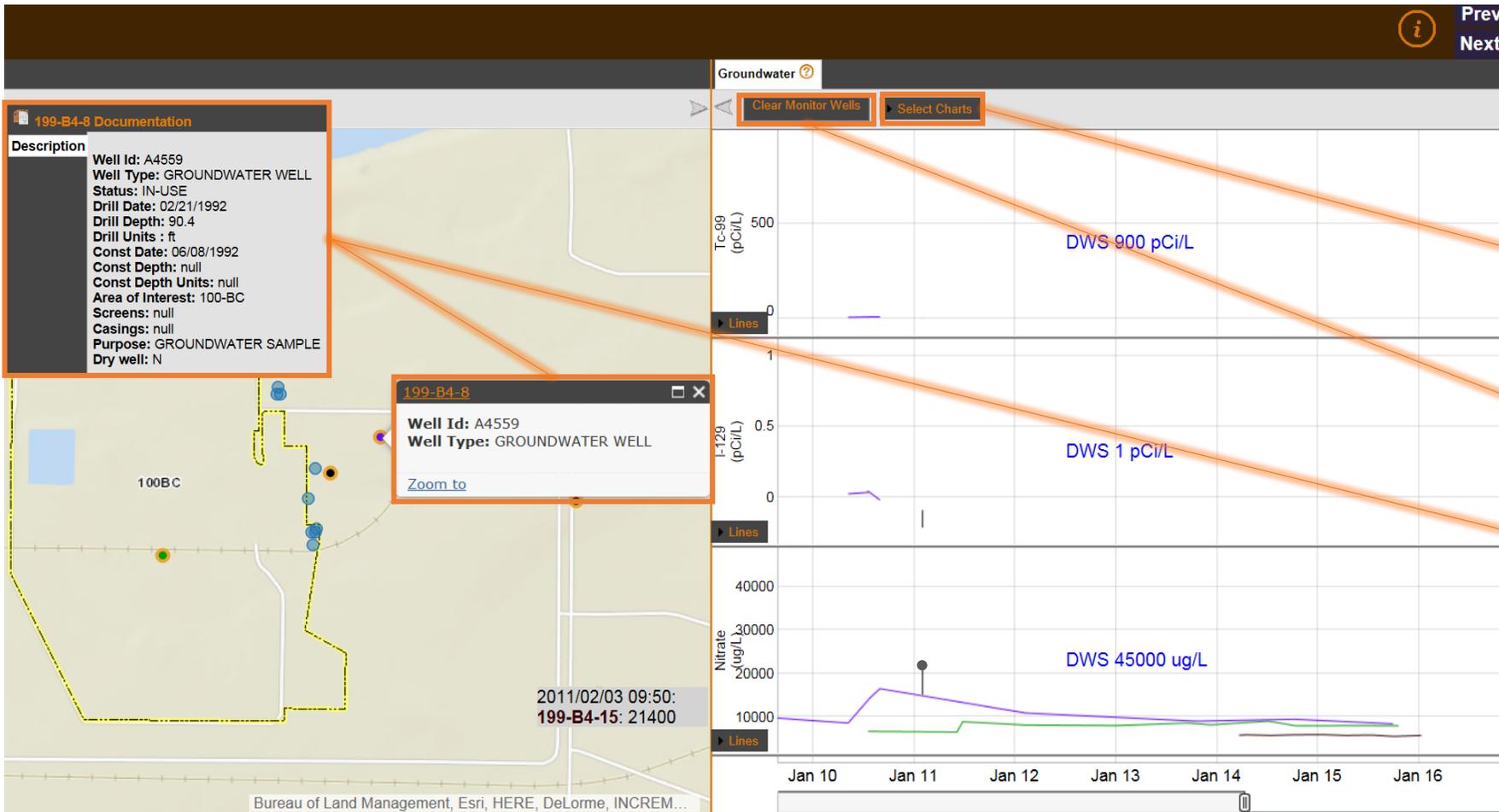
Switch the basemap view to aerial imagery, street view, or topographic view:



Change the map extent using the slider bar to zoom in and out.

Add or remove layers on the map. Click the checkbox next to the layer you would like to add to the map, and uncheck to hide the layer.

Cursor location in Web Mercator and Latitude/Longitude coordinates.



Click on a well on the map to add the well's concentration data to the charts. Well concentration lines in the charts will be colored to match the color of the well on the map.

To view groundwater monitoring results for other contaminants of interest (other than the default Tc-99, I-129, and Nitrate), click the **Select Charts** drop-down, and select which contaminants you would like to view in the chart panel.

Clear Monitor Wells will remove all selected wells from the concentration charts.

Scroll over a well on the map to display an information pop-up. Click the well name link to view the well's attributes.

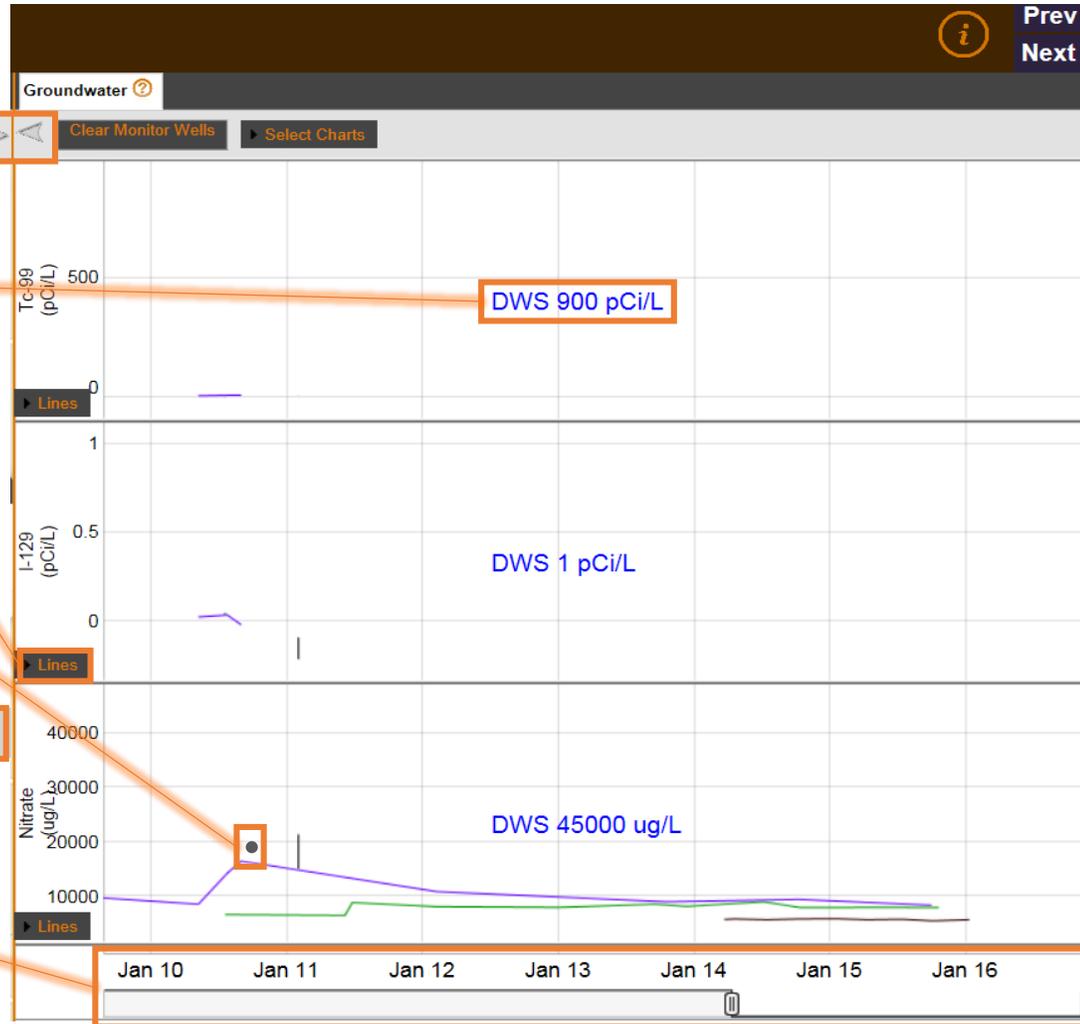
Expand or hide the Groundwater Concentration charts.

Each contaminant chart shows the relevant drinking water standard (DWS) as a blue line and in blue text. Click the **Lines** drop-down to remove the DWS line or any well concentrations from a chart.

Scroll over sampling points in the chart to view the sample date and reported concentration value.

Adjust the chart's x- and y-axes by clicking and holding the mouse cursor on a start value, and dragging to the end value and releasing. All of the chart's x-axes are linked, so x-axis scaling applies to all charts. To reset the chart axes, double click within the chart area.

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