

Nevada Mineral Explorer

A guide to using the interactive web mapping application

OVERVIEW:

This interactive web mapping application was developed as a tool for explorationists to identify and discover mineral resources throughout Nevada. Users can download specific datasets, save to PDF, search layer information, and view data without any special GIS skills. Data in this interactive web map are sourced from the Nevada Bureau of Mines and Geology (NBMG), Nevada Division of Minerals (NDOM), the U.S. Geological Survey, and other federal agencies. The data layers are organized into categories, outlined below. A complete layer list can be found at: http://www.nbmg.unr.edu/_docs/UserGuides/NVMinEx_LayerList.pdf


- Occurrences & Production
- Exploration & Development
- Mineral Resources
- Geology
- Geophysical
- Geochemistry
- Mining Claims
- Technical Reports
- Reference Data

Descriptions of map tools and other elements can be found in this guide.

DISCLAIMER:

NBMG DISCLAIMER

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I agree to the above terms and conditions

This text box appears when you first open the interactive web map. Please read our disclaimer.

To use the Nevada Mineral Explorer web map, check the box next “*I agree to the above terms and conditions*” and select the OK button. You can now use the interactive map.

MAP LAYOUT:

The screenshot shows the Nevada Mineral Explorer interface. At the top, there is a navigation bar with links for 'FAQ', 'Nevada Bureau of Mines and Geology', and 'Nevada Division of Minerals'. Below this is a search bar and a toolbar with icons for home, location, full screen, zoom, and other map functions. The main area is a colorful geological map. On the right side, there is a 'Geology' panel with a 'Layers' list. A 'Useful Links' section is located at the top right, containing links for 'Exploration & Development', 'Mineral Resources', 'Geology', 'Geophysical', 'Geochemistry', 'Mining Claims', 'Technical Reports', 'Reference Data', and 'Select Data'. A 'Draw/measure' tool is also visible on the map toolbar.

Useful Links

Exploration & Development

Mineral Resources

Geology

Geophysical

Geochemistry

Mining Claims

Technical Reports

Reference Data

Select Data

Zoom

Home (zoom to Nevada)

Your Location

Full Screen

Previous/next extent

Info

Map Key

Basemaps

Save PDF

Draw/measure

Occurrences & Production

Download Data

Add Data

Layer Lists – each of the above categories (*Occurrences & Production, Exploration & Development, Mineral Resources, Geology, Geophysical, Geochemistry, Mining Claims, Technical Reports, Reference Data*) have their own unique layers. These can be turned off and on by using the check box to the left of the layer name.

Click the small arrows to the left to expand the layer to view its symbology.

When the three dots (...) to the right of the layer are clicked, a dropdown menu appears with more options.

Geology

Layers

- Geologic Map of Nevada - Data Series 249 (USGS) ...
- Stewart and Carlson Geologic Units (NBMG) ...
- Labels ...
- Contacts ...
- Faults ...
- Geologic Units ...
- Terranes and Domains (USGS, NBMG) ...
- Triassic Overlap Domain ...
- Ultra Mafic Domain ...
- Mesozoic Clastic Domain ...
- Mesozoic Terranes Domain ...
- Mesozoic Assemblages and Volcanic Rocks Domain ...
- Mesozoic Craton Domain ...
- Golconda Terrane ...
- Antler Overlap Domain ...
- Upper Paleozoic Shelf Domain ...
- Foreland Basin Domain ...
- Dutch Flat Terrane ...
- Nolan Belt Domain ...
- Basin Domain ...
- Slope Domain ...

LAYER LISTS/CATEGORIES:



Click any of these buttons to show the list of layers associated with each category, The Nevada Mineral Explorer web map opens with the Occurrences & Production category already expanded.

Occurrences & Production
⌵
✕

Layers

Active Mines and Energy Producers (NBMG) ...

- Metal Mines
- ▲ Geothermal Direct Use, GTe
- Industrial Mineral Mines
- ◆ Gemstone Mines
- Oil Fields

Mineral Resources Data System (USGS, NBMG) ...

- ✕ Prospect or Occurrence
- ✕ Mine, past or present producer
- ▲ Processing plant
- Unknown

USMIN Topo Mine Symbols (USGS) ...

1:24000 ...

- Adit
- Shaft
- ✕ Prospect Pit
- ✕ Open Pit
- ⊙ Mill Site
- ✕ Quarry

1:48000 ...

1:62500 ...

Search keywords in layer list.

Turn all layers off/on or expand/collapse all layers in the list.

Arrow to the left of the layer name can be used to expand the layer list and show the symbology.

Use check boxes to show the layers on the map.

Use the drop-down menu (...) for more options such as viewing the attribute table and adjusting transparency.

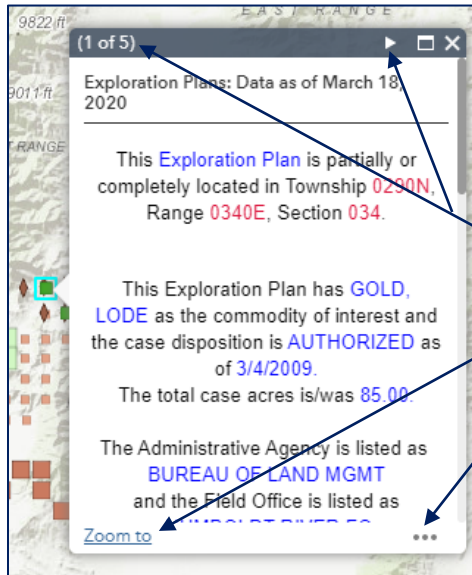
Some layers appear grayed out in the legend. These layers are set to be visible only at certain scales. To view the layer, zoom in on the map and data will appear.

NOTE: Depending on the user's device and screen size, not all the layer lists/categories will be visible. If this is the case, another icon will appear on the right. Click this icon to see hidden layer lists.



Exploration &...	Mineral Reso...	Geology	Geophysical
Geochemistry	Mining Claims	Technical Re...	Reference Data

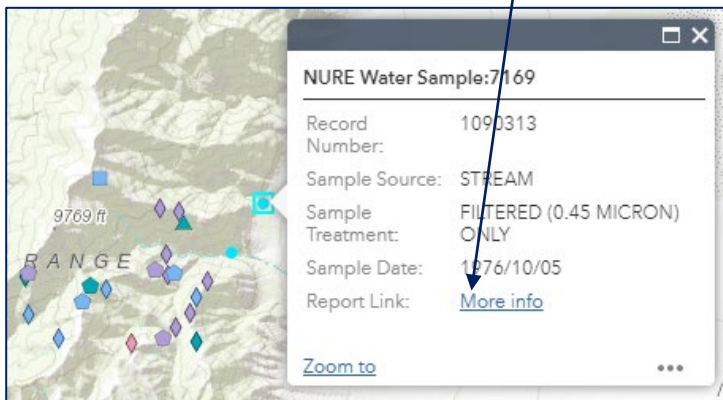
POP-UPS:



When layers are turned on in the web map, some of the symbols can be clicked to reveal more information.

Things to look for:

- Multiple popups – click arrow to view others.
- Zoom to – zooms to extent of data point.
- Pan to, add marker, or view feature in attribute table.
- More info – links to external pages.



ATTRIBUTE TABLE:

Use the attribute table to select and filter points in a layer. To open an attribute table, click the three dots (...) next to a layer and select "View in Attribute Table".

The screenshot shows an attribute table for a layer named "Active Mines and Energy Producers (NBMG)". The table has columns for Name, Operator, Commodity, County, Northing NAD83, and Easting NAD83. Three rows are highlighted in cyan. An options menu is open over the first highlighted row, showing options like "Show selected records", "Filter", and "Show/Hide columns".


Callouts and their corresponding actions:

- Use the options menu to filter attributes.** Points to the "Options" menu icon in the top left of the table.
- Show only records in current map view or show all records.** Points to the "Filter by map extent" button in the top toolbar.
- Click on a field to sort values.** Points to the "Commodity" column header.
- Show or hide columns.** Points to the "+" icon in the top right corner of the table.

Name	Operator	Commodity	County	Northing NAD83	Easting NAD83
Coeur Rochester Mine (open pit)	Coeur Rochester, Inc.	Silver, gold	Pershing	4,460,022.00	402,550.00
Alio Gold (US), Inc.	Alio Gold (US), Inc.	Gold, silver	Pershing	4,492,602.00	395,130.00
Newmont Mining Corp.	Newmont Mining Corp.	Gold, silver	Humboldt	4,520,101.00	482,251.00
Newmont Mining Corp.	Newmont Mining Corp.	Gold, silver	Humboldt	4,518,782.41	479,712.14
SSR Mining	SSR Mining	Gold, silver	Humboldt	4,507,224.00	485,220.00
Sunrise Minerals LLC	Sunrise Minerals LLC	Gold	Pershing	4,509,602.00	419,820.00
Buff-Satin Mine (stockpile)	Vanderbilt Minerals Corp.	Clay	Pershing	4,454,650.00	385,140.00
Churchill Mine	Nevada Cement Co.	Limestone	Churchill	4,427,500.00	349,540.00
Colorado Mine	EP Minerals, LLC	Diatomite, perlite	Pershing	4,460,730.00	352,910.00

13 features 3 selected

INFORMATION:




Information

Nevada Exploration Resources

This application was developed as a tool for explorationists to identify and discover mineral resources throughout Nevada. Data in this web application are organized by category (upper right-hand side of map). Each category is indicated with a different symbol, which are outlined below.

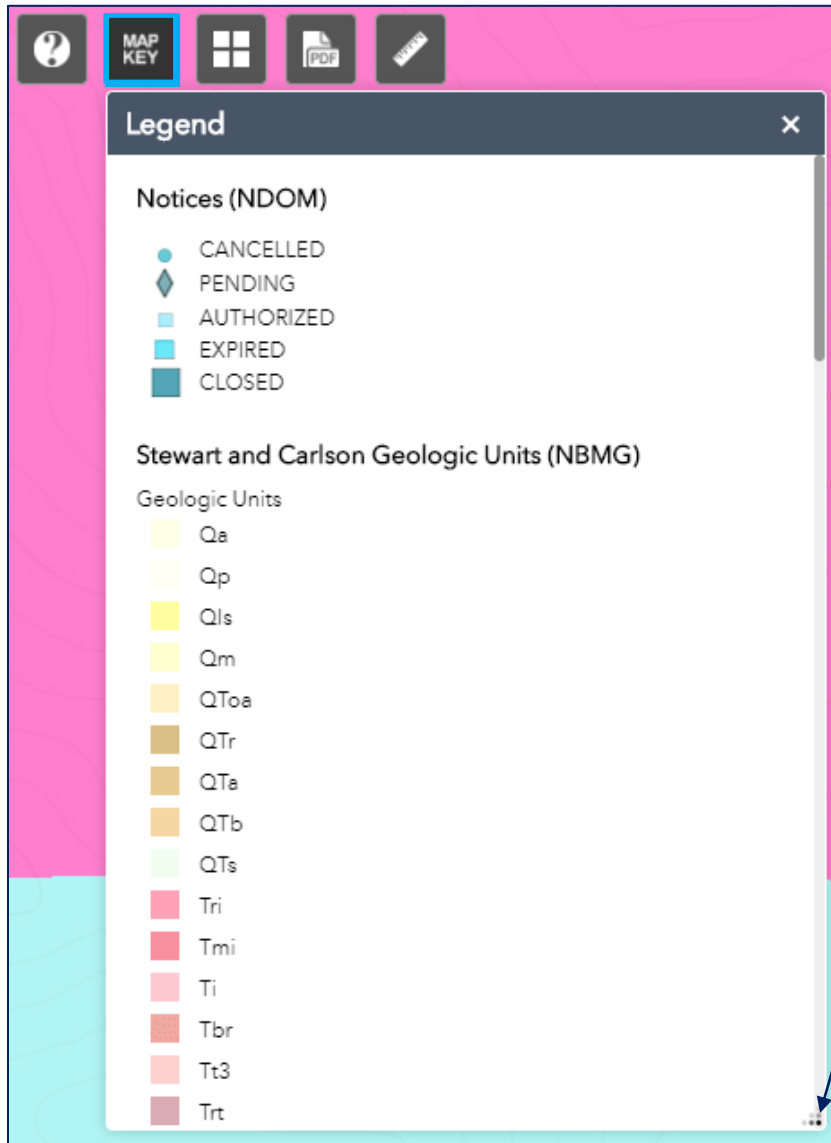
To view different categories, click on the icon for category type

-  **Occurrences & Production** - active mines and energy producers, MRDS.
-  **Exploration & Development** - exploration plans, mining plans, and notices.
-  **Mineral Resources** - precious metals and other significant deposits.
-  **Geology** - geologic units, terranes and domains, geochron data, biostratigraphy, geologic map index.
-  **Geophysical** - CBA, isostatic gravity, magnetic anomaly.
-  **Geochemistry** - National Geochemical Database.

Refer to the *Information* button for a quick review of the web map, layers, and tools.

Scroll down to see additional information.

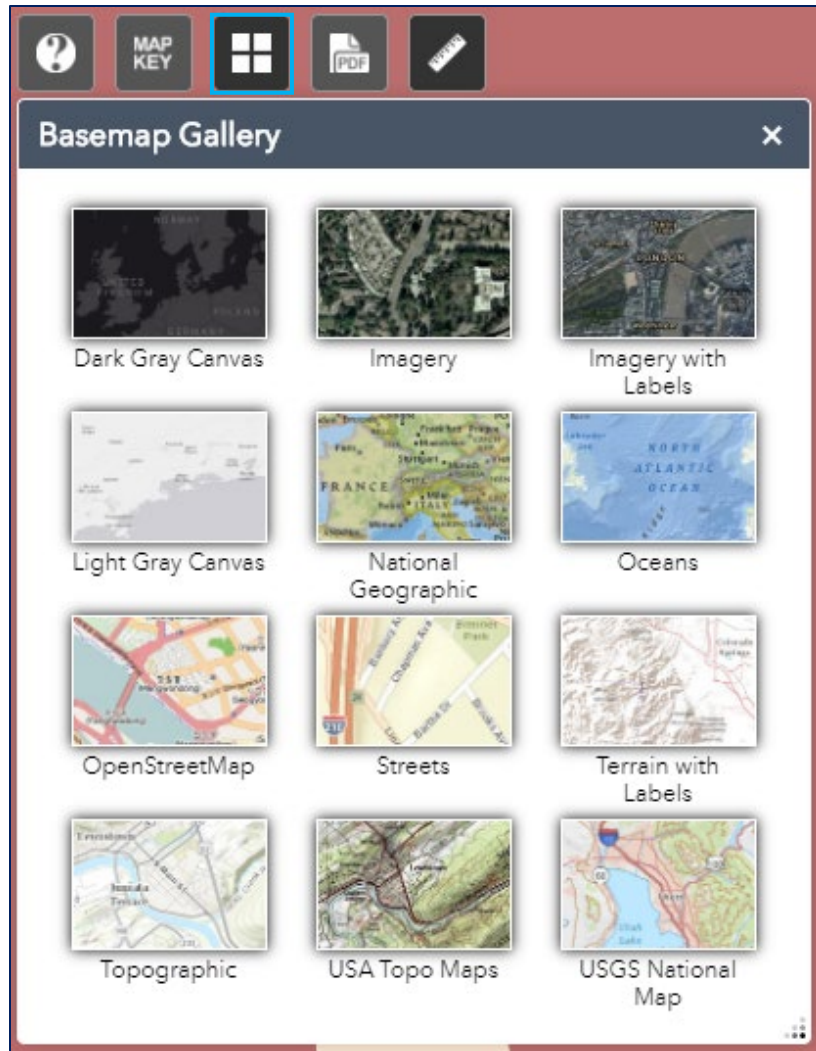
MAP KEY/LEGEND:



The *Legend* shows only the layers that are currently visible in the web map. To view more layers in the legend, check more layers on.

To expand the size of the legend box, click and drag the corner to the desired size.

BASEMAP GALLERY:



Use the *Basemap* icon to select from a variety of ArcGIS Online hosted basemaps.

The Nevada Mineral Explorer web map loads with the topographic basemap selected by default.

SAVE PDF:

Save PDF

Map title: Nevada Mineral Explorer

Layout: Letter ANSI A Landscape

Format: PDF

Advanced Print

1. Nevada Mineral Explorer

Clear prints

Map scale/extent:

Preserve: map scale map extent

Force scale: 18,055.955 [current](#)

Output spatial reference [WKID](#) : 102100
WGS_1984_Web_Mercator_Auxiliary_Sphere

Labels:

Show labels:

Layout metadata:

Author: Nevada Bureau of Mines

Copyright: © Copyright 2020 The University of Nevada, Reno. All Rights Reserved

Include legend:

Scale bar unit: Miles

MAP_ONLY size:

Width (px): 670

Height (px): 500

Print quality:

DPI: 96

Feature attributes:

Include attributes:

Use the *Save PDF* icon to create a letter-sized PDF of the map.

NOTE: This tool may take some time to load.

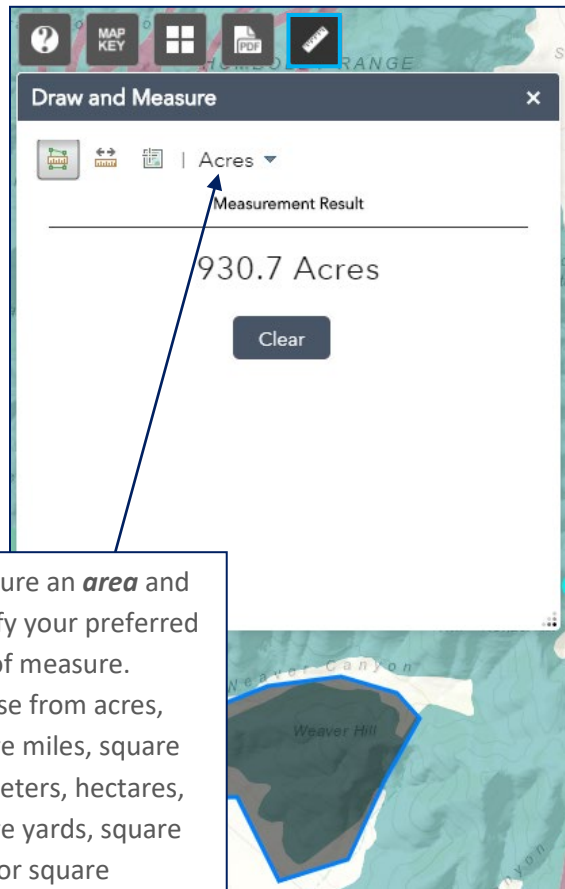
Press the Print button to create a downloadable link of your map.

Press the *Advanced* button to:

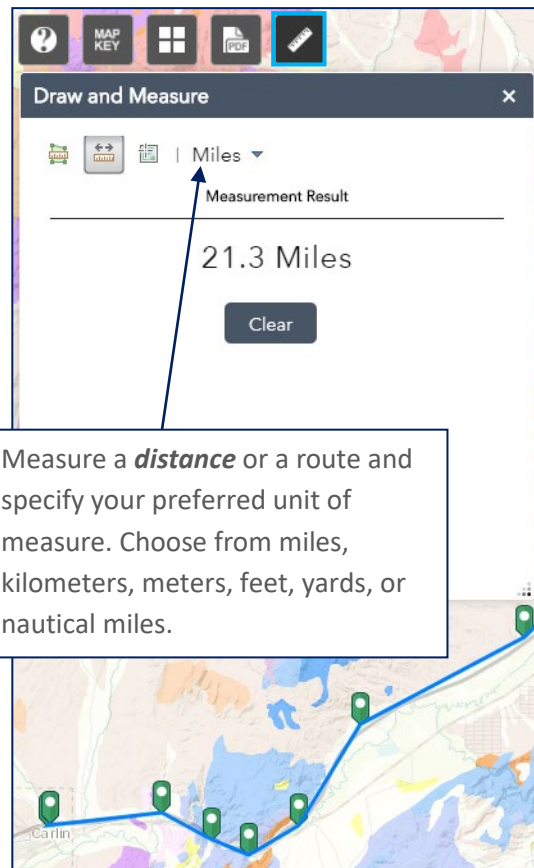
- set the scale
- show labels
- include or exclude legend
- set scale bar unit
- adjust map size
- and adjust resolution (*150 dpi is recommended*)

DRAW/MEASURE:

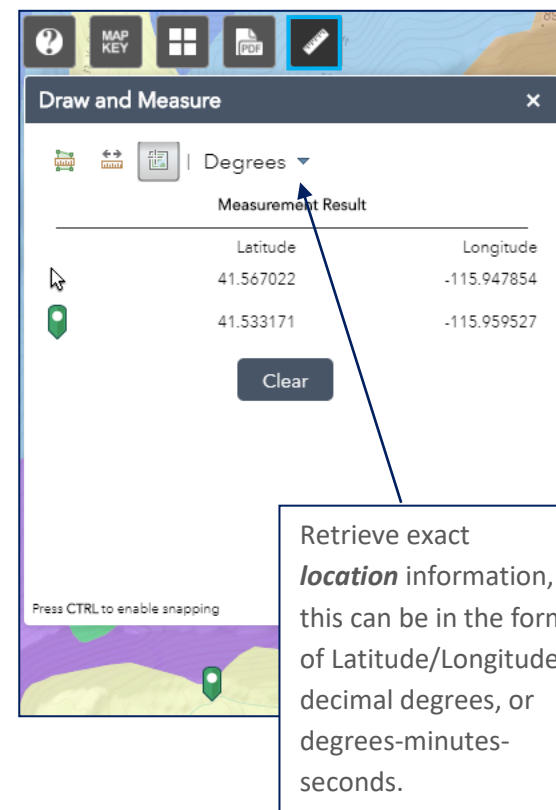
Use the *Draw and Measure* tool to calculate areas, distances, routes, and retrieve location information.



Measure an **area** and specify your preferred unit of measure. Choose from acres, square miles, square kilometers, hectares, square yards, square feet, or square meters.



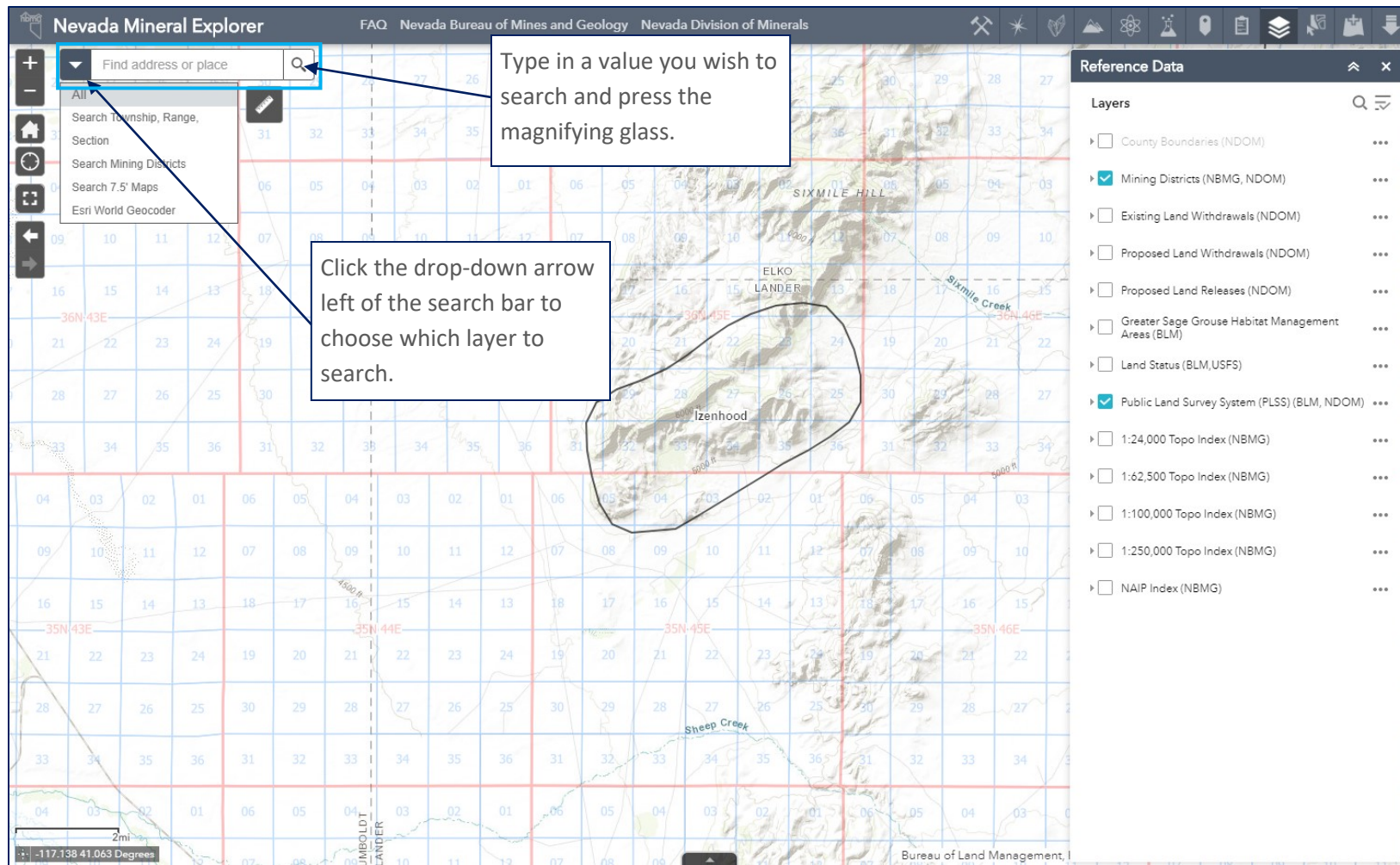
Measure a **distance** or a route and specify your preferred unit of measure. Choose from miles, kilometers, meters, feet, yards, or nautical miles.



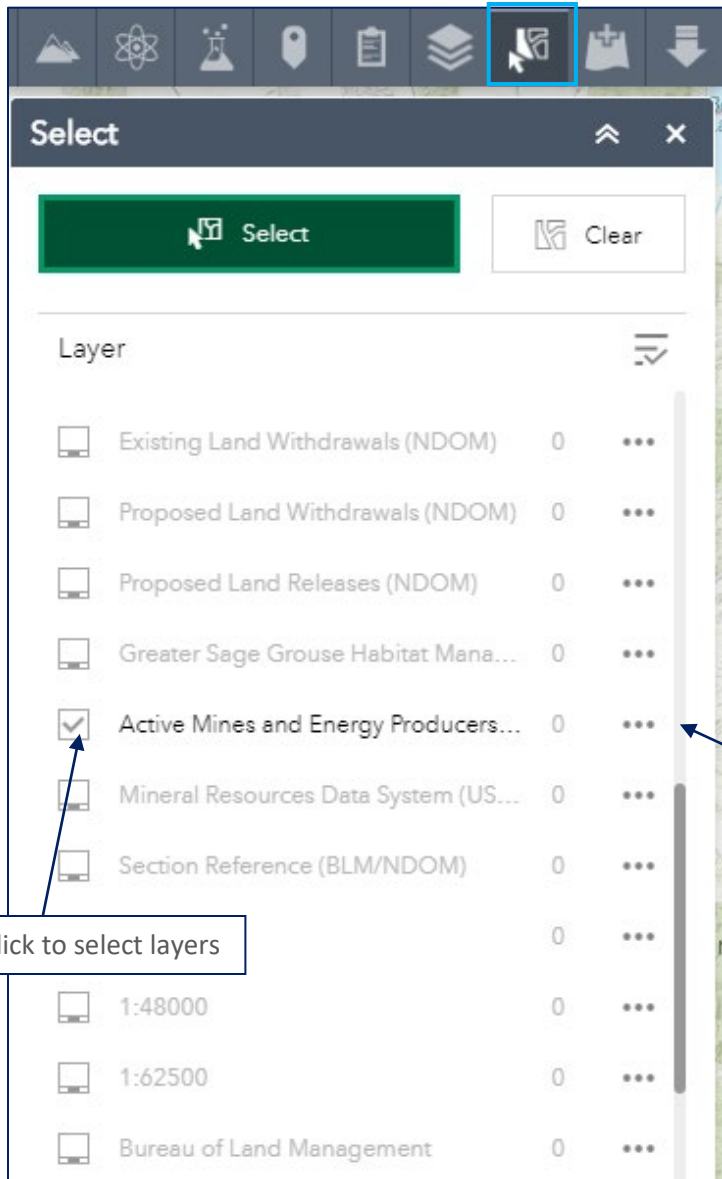
Retrieve exact **location** information, this can be in the form of Latitude/Longitude decimal degrees, or degrees-minutes-seconds.

SEARCH:

Use the *search box* to search locations within the application.



SELECT:



Use the *select* tool to select data on the map by left-clicking a point on the map and dragging to draw a box.

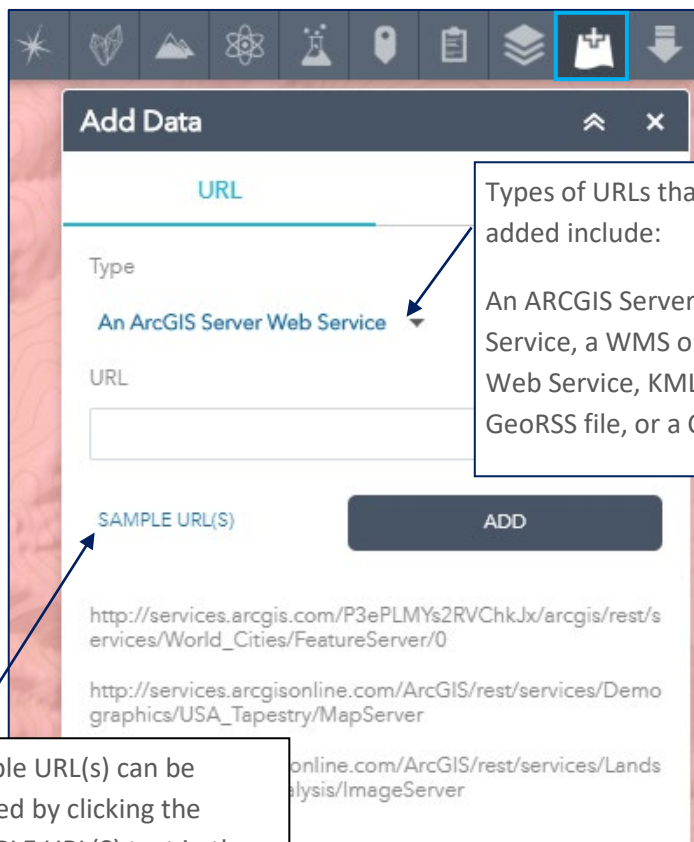
NOTE: Grayed out layers are layers that are not currently visible in your map. To select any of the grayed-out layers, navigate back to the category that contains the layers and turn them on.

Click the three dots to the right of the layer (...) to view additional selection options.

Click to select layers

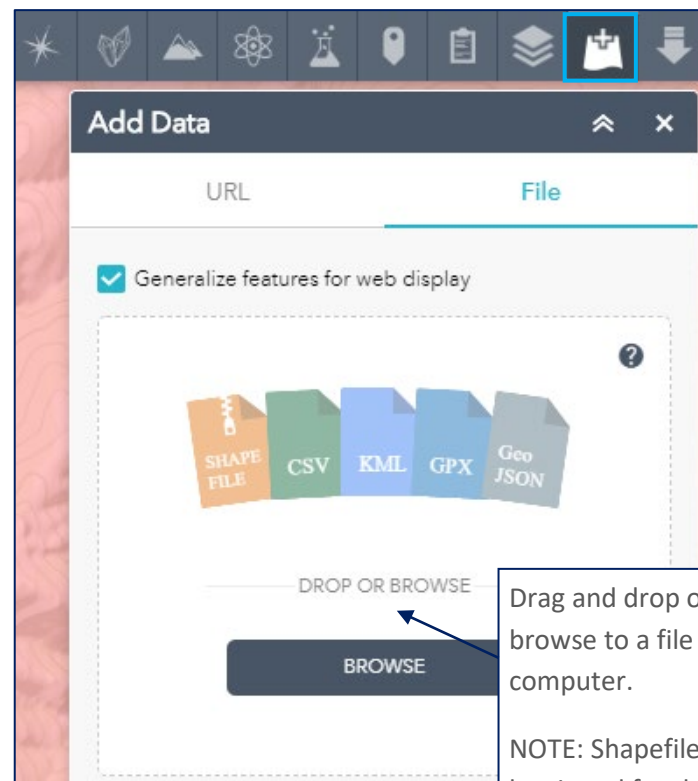
ADD DATA:

Use the **Add Data** tool to add your own data, or other data to the Nevada Mineral Explorer web map. Data can be added from a URL or from a file on your computer.



Types of URLs that can be added include:
An ArcGIS Server Web Service, a WMS or WFS OGC Web Service, KML file, GeoRSS file, or a CSV file.

Sample URL(s) can be viewed by clicking the SAMPLE URL(S) text in the Add Data tool.

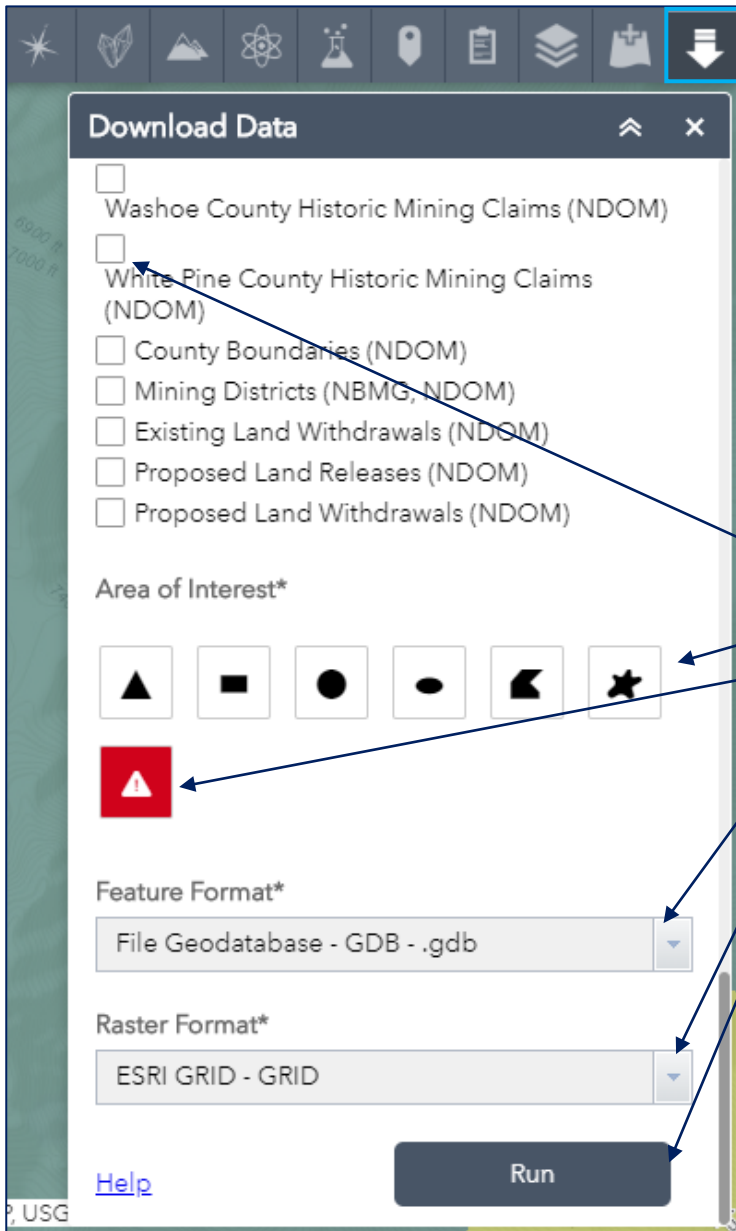


Drag and drop or browse to a file on your computer.

NOTE: Shapefiles must be zipped for them to be added to the web map.

NOTE: data that you add will NOT be permanently added to the Nevada Mineral Explorer web map. The datasets added by the user will be removed from the web map when the browser window is closed.

DOWNLOAD DATA:



Use the **Download Data** tool to download layers of interest from the map.

NOTE: all layers are turned off by default. Click the box next to the layers you wish to download and select the area of interest on the map using one of the drawing tools.

To download data:

- select which layers you wish to download.
- select desired area of interest tool and draw a polygon on the map.
- clear selection/start over.
- select feature format
- select raster format
- click run to begin download.

A link will appear in the Download Data window. Click this link to download a zip file containing the data you selected.