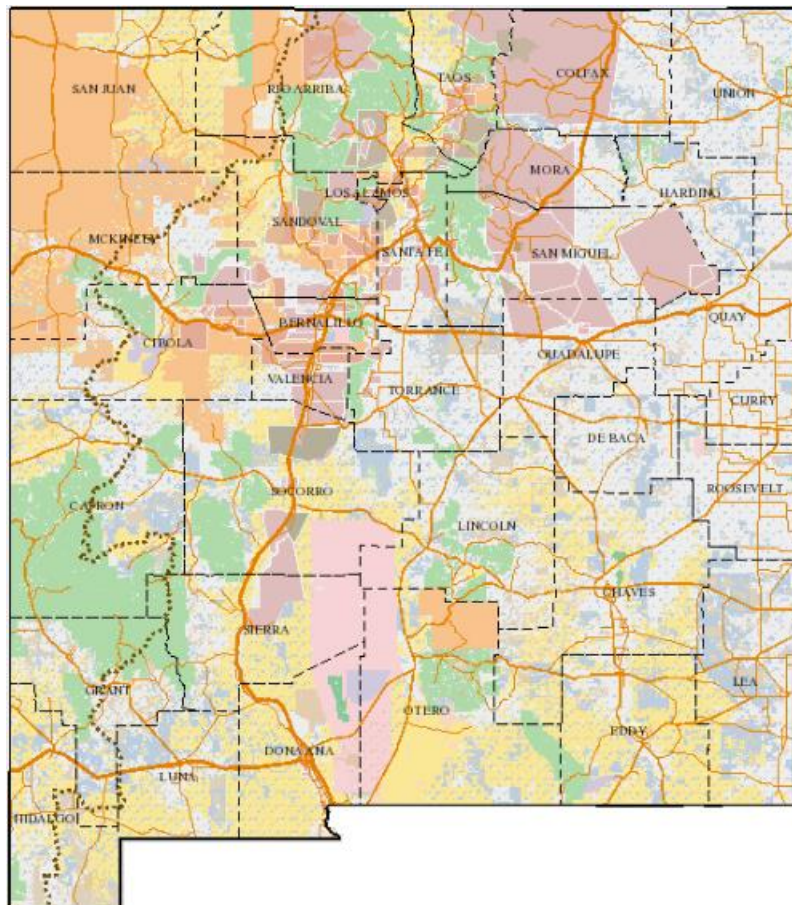




ONLINE MAPPING SERVICES

USER'S GUIDE



FEBRUARY 10, 2017

NEW MEXICO STATE LAND OFFICE

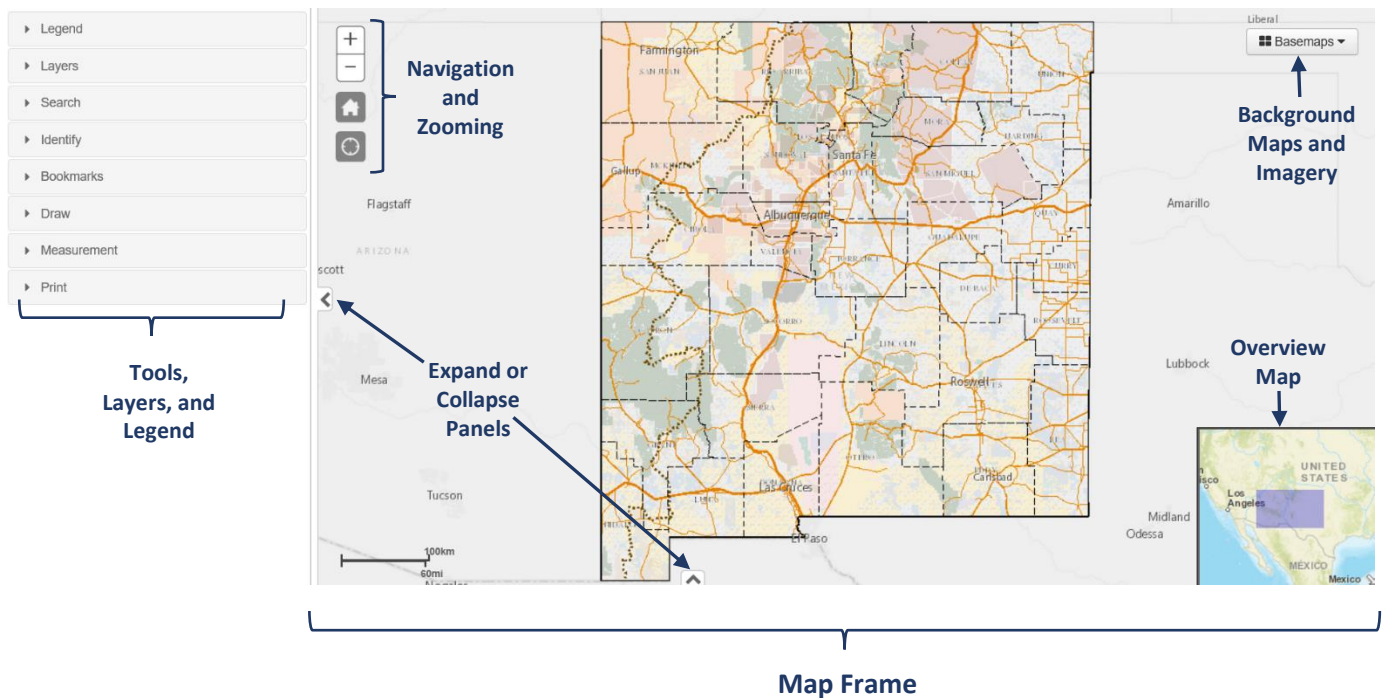
310 Old Santa Fe Trail, Santa Fe, NM 87501

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Online Map Layout

All mapping services contain similar layouts and functionalities. The figure below shows the basic design of the New Mexico State Land Office online mapping services.



The online maps are comprised of a main map frame that displays the various data layers, a tool panel located to the left of the map frame, and a results table that appears in the bottom panel when a query or search is performed.

Basic Map Functionality

When the map is initiated, it appears with the full extent of the state of New Mexico.

Navigation tools are located within the *upper-left corner* of the map frame:



Zoom in or out. The mouse wheel will also zoom in and out. Place the cursor over the area to be zoomed to and roll the wheel forward to zoom in. Roll the mouse wheel backward to zoom out.

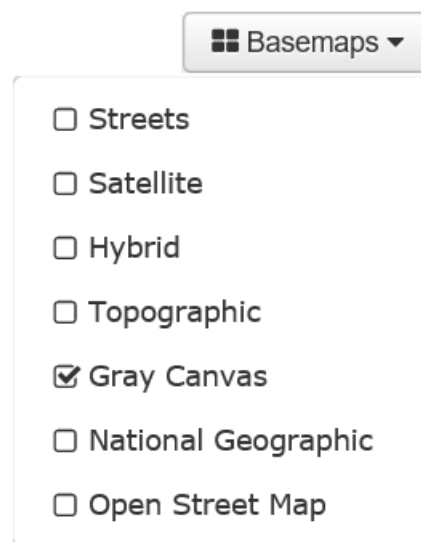


Return to default extent (state of New Mexico).



Track physical location of the user. The device's GPS or GeoIP address is used to show the user location.

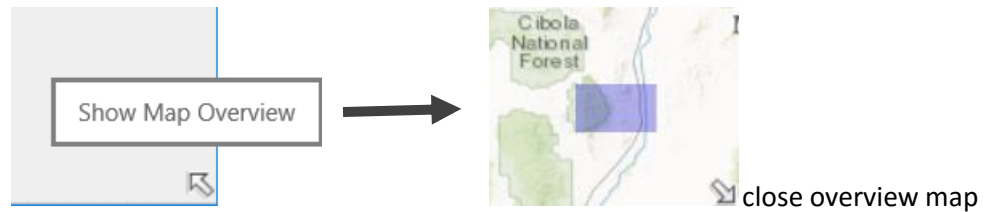
Basemaps: Select a map or imagery as a background. Click the *Basemaps* button located in the *upper-right corner* of the map frame, and a list of options appears. Select from topographic, shaded relief, street maps, or satellite imagery.



Scale bar: The scale bar is located on the *lower-left corner* of the map frame and has units of both miles and kilometers. The scale bar dynamically changes as the map extent changes (zoom in or out).

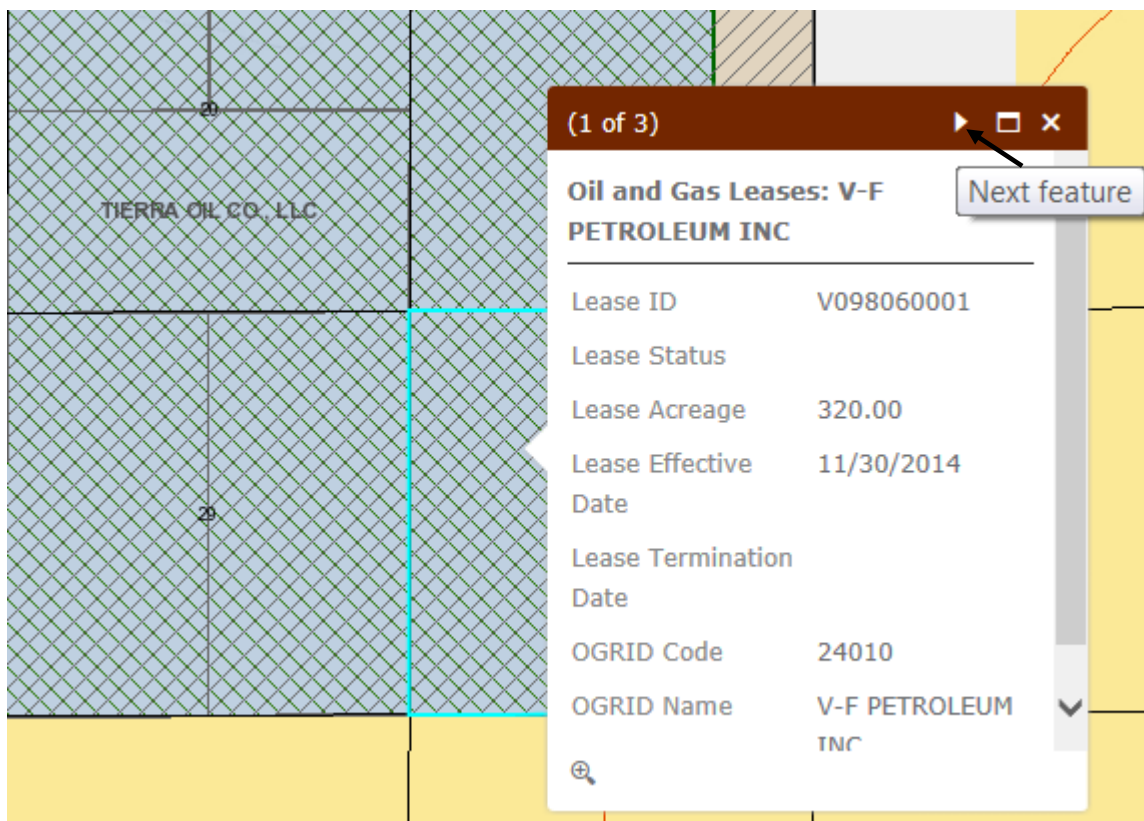


Overview Map: The arrow located on the *bottom-right corner* of the map frame activates the map overview. Click on the arrow to see where the current extent of the map frame falls within a larger map. Click the downward-facing arrow to close the overview map.

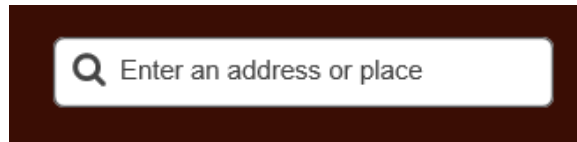



Pan: Place the cursor in the map frame, hold down the left mouse button, and drag the mouse.

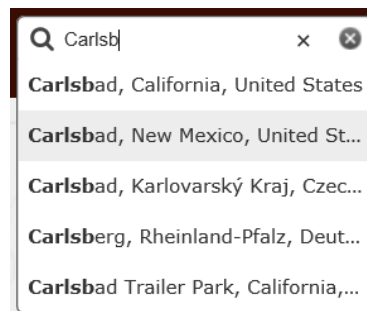
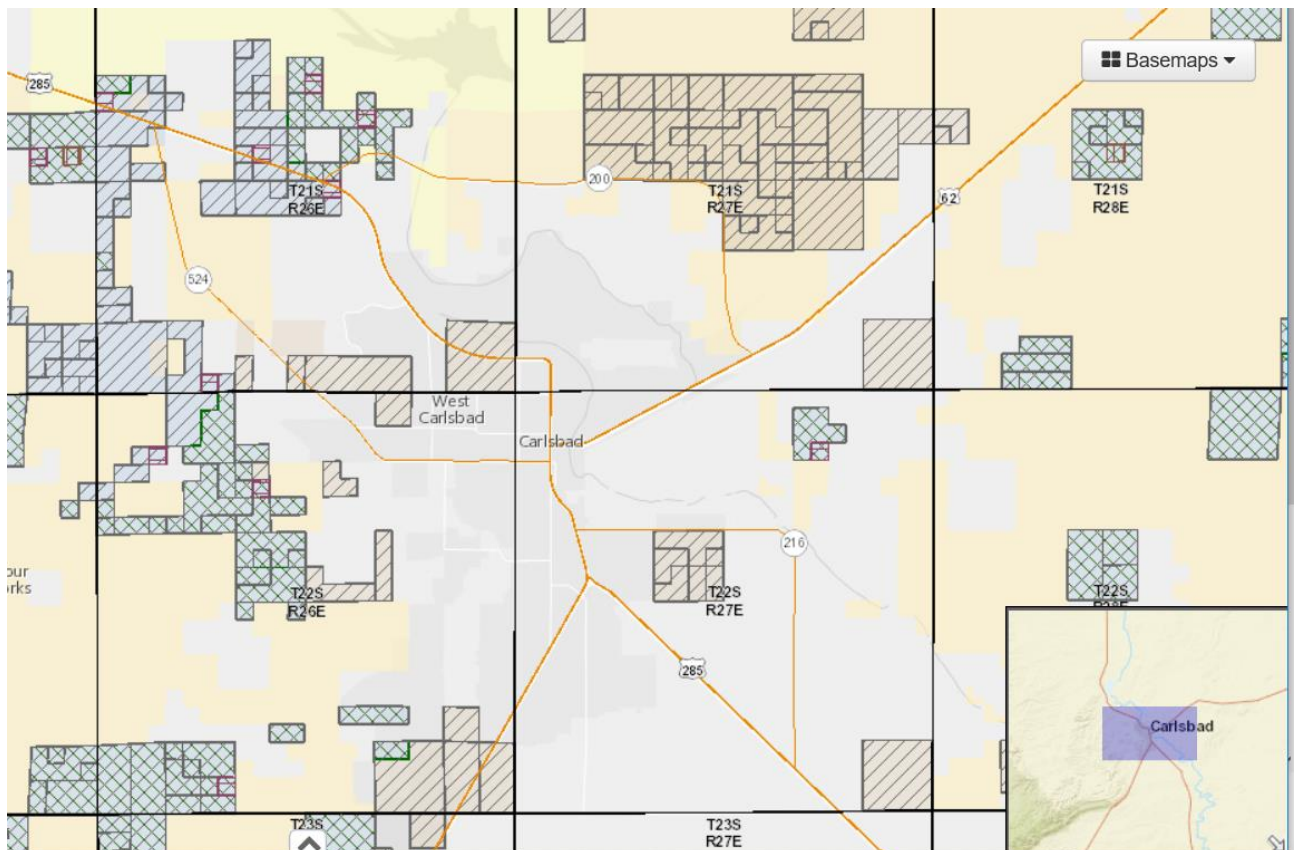
Identify Features: Place the cursor over a feature in the map and click the left mouse button. A dialog box will appear with attribute information for each feature under the cursor. To view attributes for different features, click the *Next Feature* arrow to scroll through information for all overlapping features.



Locate a Place or Address: The map contains a geocoder to quickly locate and zoom to a specified area. The geocoder is located in the title bar above the map.

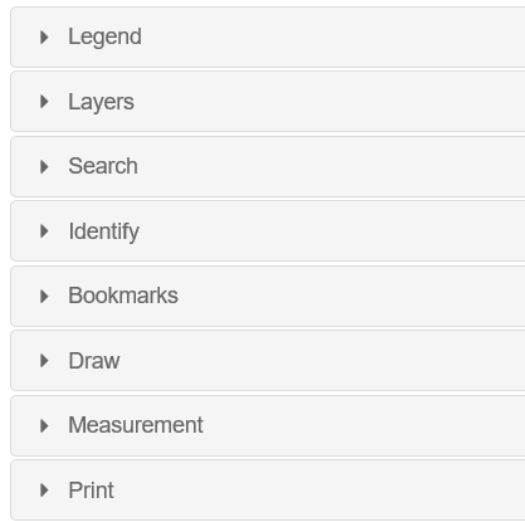
A dark red rectangular box containing a white search bar. The search bar has a magnifying glass icon on the left and the text "Enter an address or place" inside it.

Enter an address, a city/state, or a landmark then click on  or press the *Enter* key and the map zooms to the location. As the location is being typed, a drop-down list appears below the text box. If the list contains the place of interest, click on the list item and the map will zoom to the location.

A screenshot of the geocoder search results. The search bar contains the text "Carlsb". Below the search bar is a list of suggestions: "Carlsbad, California, United States", "Carlsbad, New Mexico, United St...", "Carlsbad, Karlovarský Kraj, Czec...", "Carlsberg, Rheinland-Pfalz, Deut...", and "Carlsbad Trailer Park, California,...".

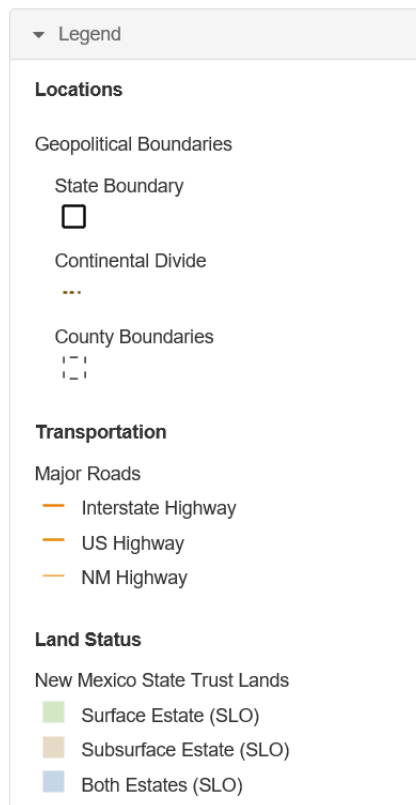
Tools and Layers

The left panel of the web map contains various tools for searching, viewing layers, identifying specific layers, drawing shapes, measuring distance or area, and printing maps.



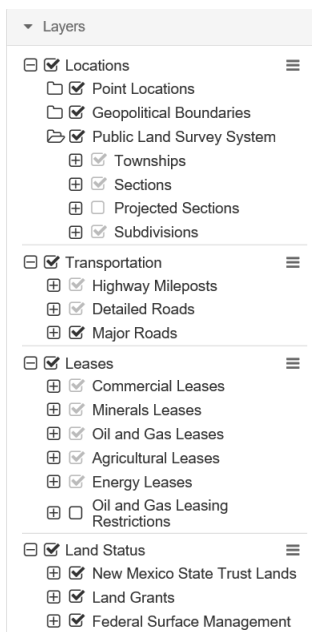
Legend


The map service opens with the legend as expanded. The symbology is viewed as it would be seen on a printed map. To collapse the legend, click on the *Legend* bar.

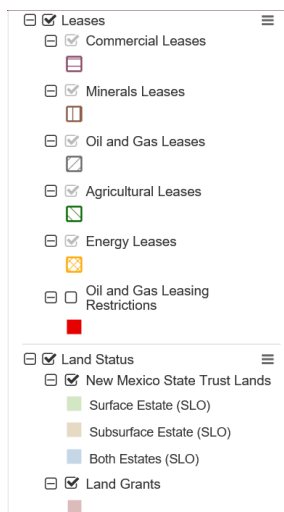


Layers

Data layers can be viewed and manipulated within the map to change the order or physical appearance. Expand the *Layers* section in the left panel. The various layers for the map service are listed.



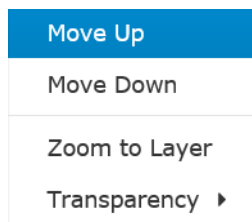
Expand the  symbol next to the layer to view the layer's symbology. These correspond to the same symbols in the *Legend* section.



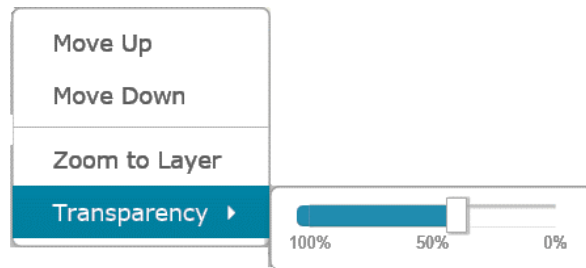
Check or uncheck the box next to the layer name to turn on or off a layer within the map. The *Legend* section will be updated as layers are checked or unchecked.



Click on the layer menu icon located to the right of a layer group. This opens a menu with tools to further manipulate the layers within the group.

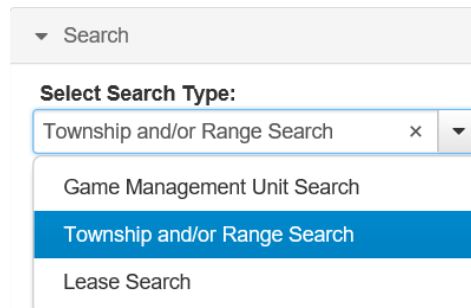


The layer group can be repositioned to change the drawing order in the map by moving the layers up or down within the legend. The transparency can also be changed. This will change the transparency level for all layers with the group.

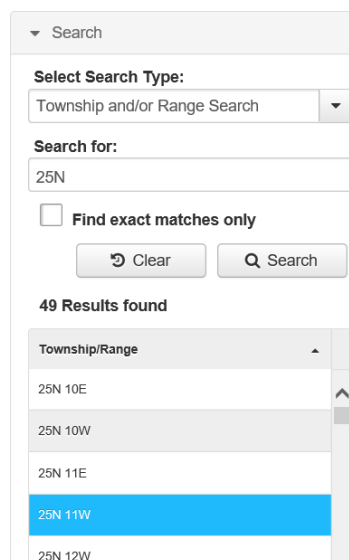


Search

Click on *Search* to expand the search options. The different maps will have a unique set of parameters to search. Under *Select Search Type:* is a drop-down menu that shows the different layers available for searching.



Select the layer to search and enter the search value in the *Search for:* text box. Click on the *Find exact matches only* check box to locate those records with the exact value entered in the text box. If the box is left unchecked and a partial value is entered, a set of values will appear. Select a value in the *Results* window to complete the search query.



A complete search string can also be entered. After clicking the *Search* button, click on the returned value in the *Results* window, and the map will zoom to the selected feature. The selected feature will be highlighted in red.

▼ Search

Select Search Type:
Township and/or Range Search ▼

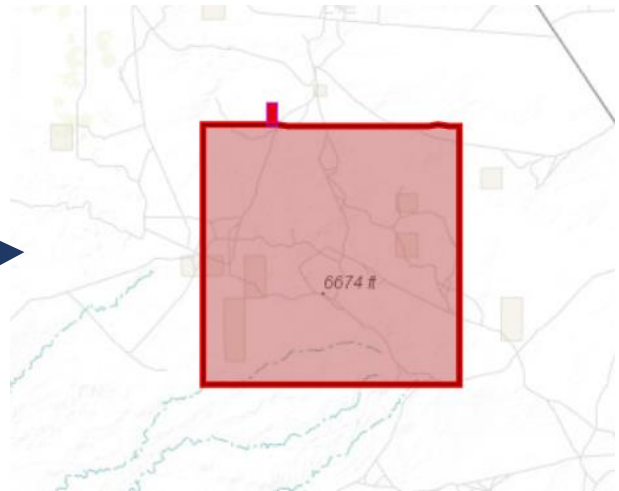
Search for:
25N 11W

☐ Find exact matches only

🔄 Clear 🔍 Search

1 Result found

Township/Range ▼
25N 11W



The bottom panel will open containing tables of other features that intersect the selected feature.

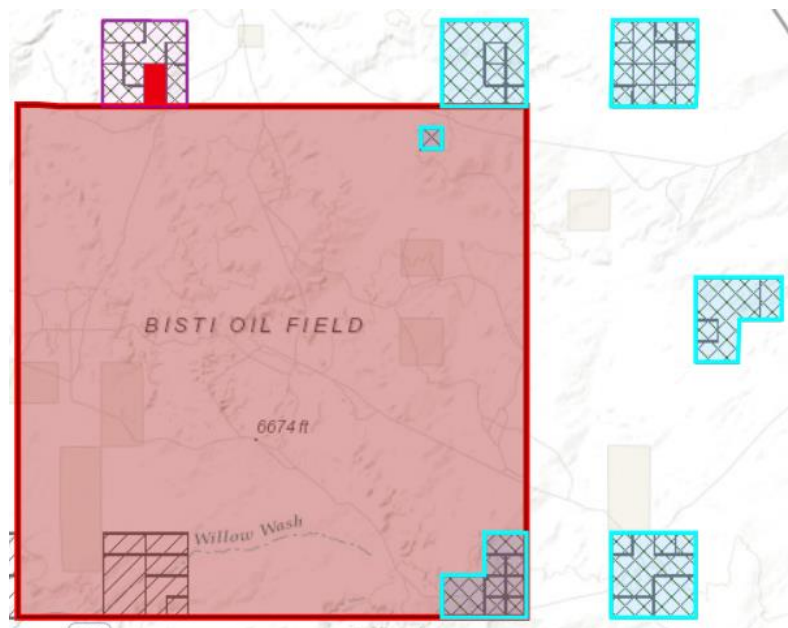
Agricultural Leases [x] Lands Withdrawn From Hunting [x]

🔍 Zoom ▼ 🔄 Clear ▼

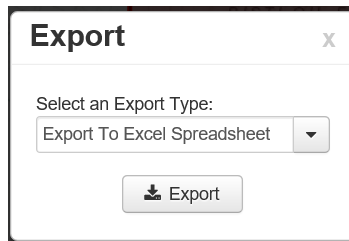
Export


| Lease ID | OGRID Name | Acreage | Type Code |
|----------|-------------------|-------------|-----------|
| GR2171 | ELEANOR CAMBRIDGE | 637.580 | G |
| GS2251 | NAVAJO NATION | 112,818.520 | G |

Click on the links above the table to view the intersecting features from different layers. Click on a record in the table, and the map will zoom to the feature. The selected feature will be highlighted in blue.



Click on the *Export* button located above the table and to the right. A dialog box appears with a drop-down menu to select a format for the exported file. The choices are either a MS Excel spreadsheet or a comma separated values (CSV) file. The browser will provide a choice to open or save the file.



To collapse the table, click the down-arrow  above the panel.

Bookmarks

The *Bookmarks* tool allows you to store a map extent so you can quickly return to the area. Go to the area of interest within the map. Expand the *Bookmarks* tool. Click *Add Bookmark*. Enter a descriptive name in the textbox. The map extent is stored within the bookmark.

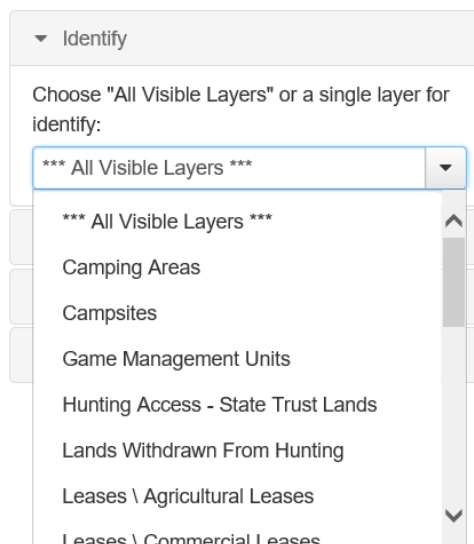


To return to the area of interest at a later time, simply click on the bookmark name.

Click on  to edit the bookmark's name. Click on  to delete the bookmark.

Identify

To identify objects, place the cursor over an object and click the left mouse button. A dialog box appears. As described on page 4, the dialog box provides attributes for every feature that intersected the cursor. To limit the attribute list to a specific layer, open the *Identify* tool. The tool populates with the names of the visible layers within the map extent.

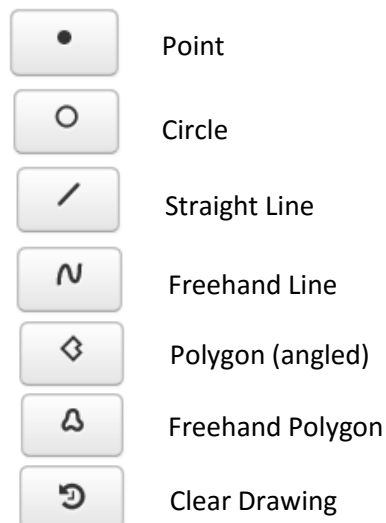


The tool defaults to *All Visible Layers*. To see only attributes for a specific layer, click on the layer name in the pull-down menu. In the map frame, click on a feature from that layer. The dialog box will only show attributes from the selected layer, even if there are overlapping features from other layers.

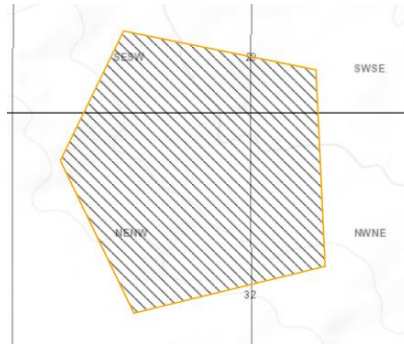


Draw

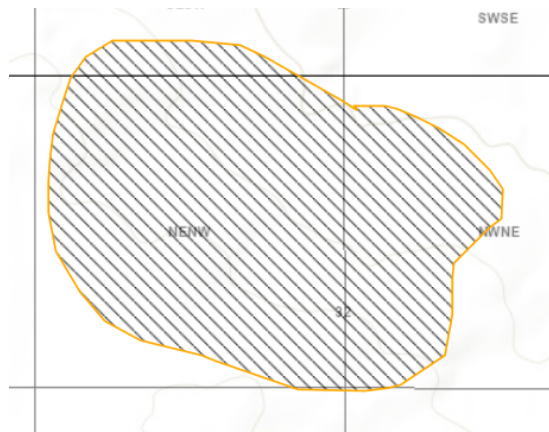
To draw shapes or place points in the map frame, expand the Draw tool. There are several options for adding shapes to the map.



For *points*, *straight lines*, and *angled polygons*, click the left mouse button in the map at the starting point of the shape, then move to the next point and click. Click the left mouse button for each vertex of a line or polygon. Double-click the left mouse button when the shape is completed.



For *freehand* shapes, press the left mouse button to begin drawing. Without releasing the mouse button, move the cursor over the map. Release the mouse button when the shape is completed.



Measure (Area, Distance, and Location)

Length and area can be measured within the map frame. Expand the *Measurement* tool. Three icons appear.



Area

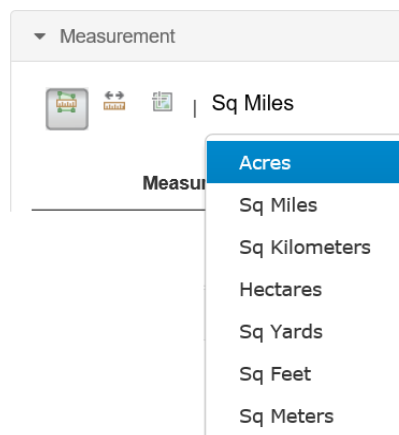


Distance

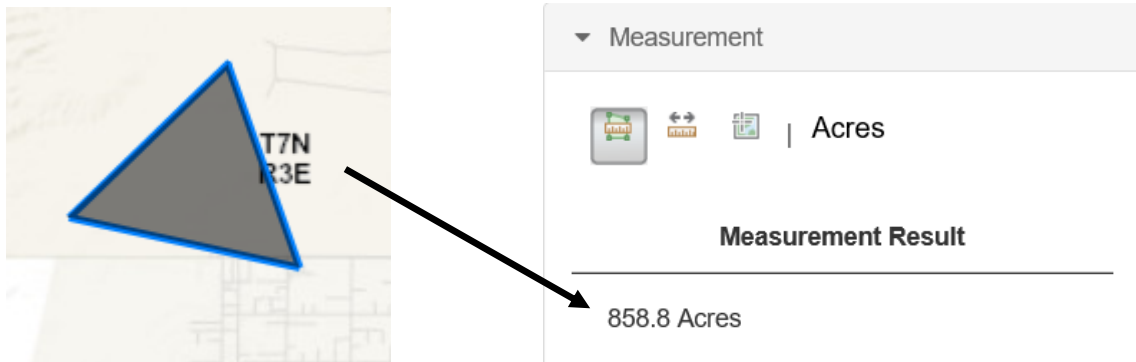


Location

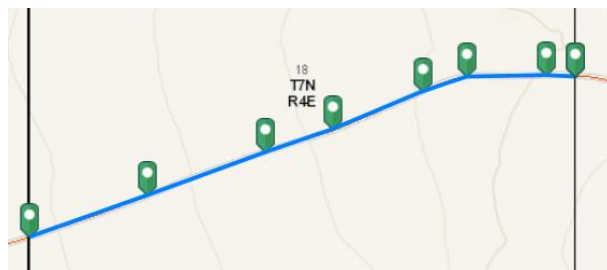
Click on an icon, and the measurement units appear. Click on the units and a drop-down menu appears containing a list of units to choose from.



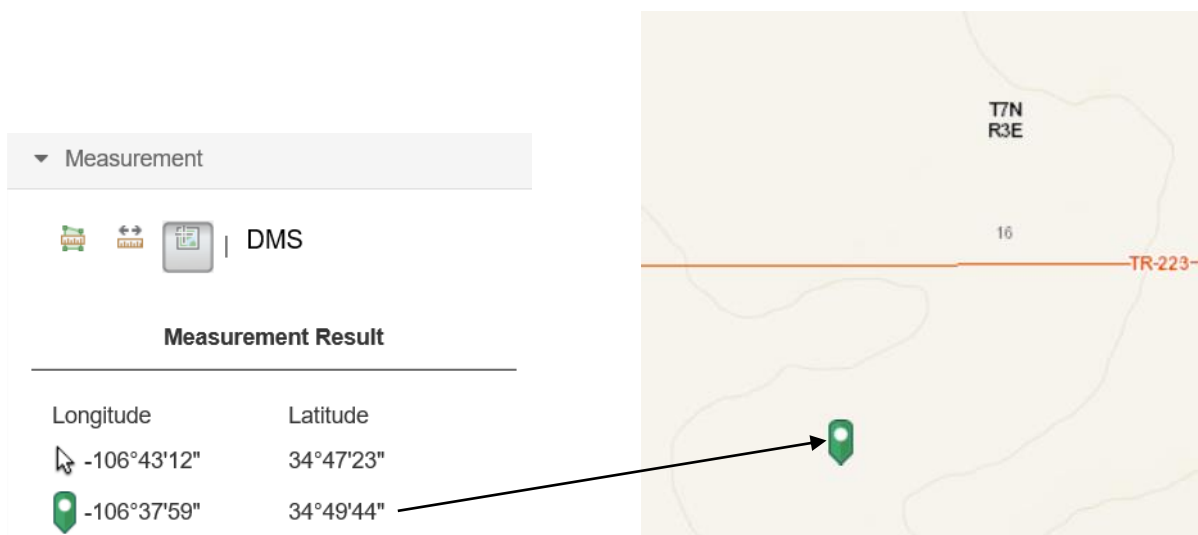
Using the left mouse button, click the starting point in the map. For area measurements, continue to click each vertex until the point of beginning is reached. Double-click the mouse button when finished. The *Measurement Result* section displays the area or length measurement in the selected units.



For measuring distances between two locations, click on the *Distance* icon, select the units of measure, click the first location, then click the second location. The distance between locations is listed in the *Measurement Result*. Curved distances can be measured by clicking several vertices to approximate a curve. Green markers are placed at each vertex. Double-click when finished.

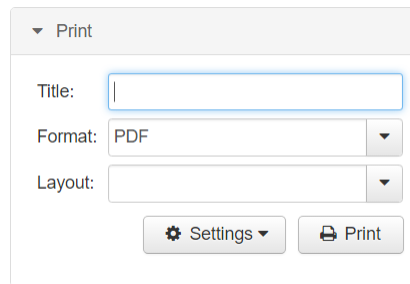


The *Location* icon provides latitude and longitude coordinates for a location in the map frame corresponding to where the cursor is located. Click on the icon and the units of measure appears. The drop-down menu lists either decimal degrees or degrees-minutes-seconds (DMS). Place the cursor in the map frame and the positional coordinates are listed in the *Measurement Result* section. Click in the map frame and a green marker will be placed on the map with the coordinates shown in the results.



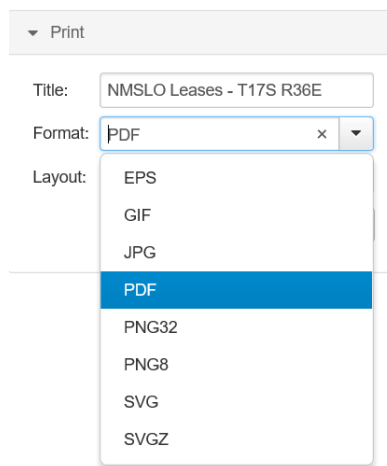
Print a Map

The *Print* tool can produce a digital static map of a desired area. Zoom to the area of interest and check the layers that will appear in the map. Expand the *Print* tool.



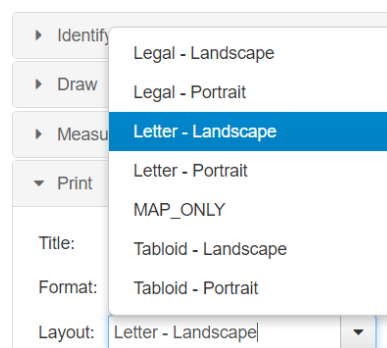
A screenshot of the 'Print' tool interface. It features a title input field, a format pull-down menu set to 'PDF', and a layout pull-down menu. Below these are 'Settings' and 'Print' buttons.

Enter a title for the map in the *Title* textbox. Expand the *Format* pull-down menu and select a file format for your map. There are a variety of image formats to choose from. The format defaults to *pdf*.



A screenshot of the 'Print' tool interface with the 'Format' pull-down menu expanded. The menu lists various file formats: EPS, GIF, JPG, PDF (highlighted), PNG32, PNG8, SVG, and SVGZ. The title field contains 'NMSLO Leases - T17S R36E'.

Expand the *Layout* pull-down menu to select a page size and orientation for the map. .



A screenshot of the 'Print' tool interface with the 'Layout' pull-down menu expanded. The menu lists various page sizes and orientations: Legal - Landscape, Legal - Portrait, Letter - Landscape (highlighted), Letter - Portrait, MAP_ONLY, Tabloid - Landscape, and Tabloid - Portrait. The title field contains 'NMSLO Leases - T17S R36E'.

Click the *Settings* button, and a dialog box appears containing various map settings. Enter the appropriate settings to control the appearance and digital quality of the map. You can choose to include a legend, the units for the scale bar, the print resolution (DPI), whether to preserve the map extent (print only the area visible in the browser), or preserve the scale (add to or remove area to fit on the selected page).

Map scale/extent:
 Preserve: ☐ map scale ☒ map extent

Full layout options:
 Scale bar units: Miles
 Include legend: ☒

Print quality options:
 DPI: 150

MAP_ONLY options:
 Width: 3,300
 Height: 2,550
 } pixels

Settings Print

When all settings, format, and layout have been selected, click the *Print* button. A link to the map appears below the settings.


Print

Title: NMSLO Leases - 17S 36E

Format: PDF

Layout: Letter - Landscape

Settings Print

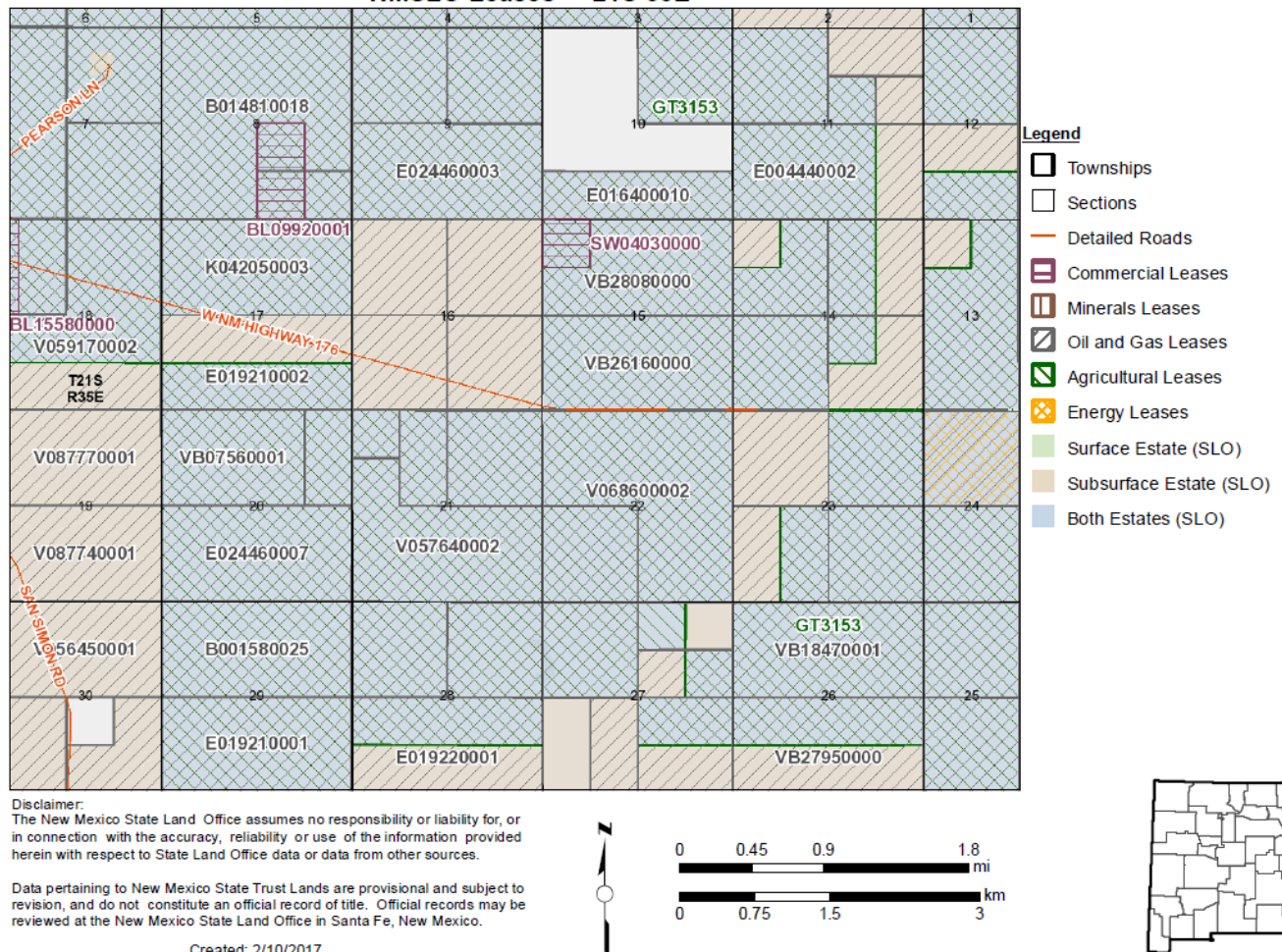
1.  **NMSLO Leases - 17S 36E** ← Link to digital map

Clear Print History

Click on the link to view the map.



NMSLO Leases - 21S 35E



There can be multiple map links corresponding to different maps located within the *Print* tool. The links will be available until the *Clear Print History* button is clicked or the browser is closed.

Note: The legend will contain all data layers that are visible, regardless if they appear within the map extent. To control the items in the legend, uncheck those data layers in the *Layers* section that do not appear in the map extent (see page 7). This will shorten the legend contents. The legend is vertically centered. As the number of items increases, the legend will expand up and down.

MAP_ONLY

The *MAP_ONLY* option in the *Layout* menu produces a digital map with nothing surrounding the layout, i.e., no legend, title, scale bar, or annotation. The entire page is filled with the map. The *Width* and *Height* dimensions in the *Settings* menu are only activated when the *MAP_ONLY* option is used and are in units of pixels.

