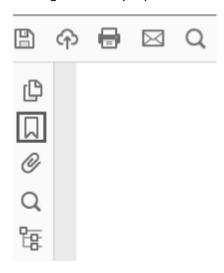
# Help / About

# Welcome to the Oklahoma Corporation Commission (OCC) Division of Oil and Gas Conservation Data Explorer system

# **System Overview**

Thank you for utilizing the OCC Data Explorer system. To view the contents of the help manual, reference the Table of Contents, or enable the Bookmark pane by clicking on the Bookmark icon, then clicking the sub-topic you wish to view.



Depending on how you opened the manual, you may first need to display your PDF-reader application toolbar; in Adobe Acrobat Reader DC.



The Data Explorer system is best viewed in Chromium web browsers (e.g., Google Chrome, Microsoft Edge).

# Table of Contents

lelp / About		1
	Getting Started	3
	Page-Level Tools	3
	Page Layout	3
	Search Pane	3
	Map Pane	4
	List Results Pane	4
	Details Pane	5
	Searching the Data Explorer System	5
	Filter Search	5
	Full Text Search	9
	Location Searches	10
	Understanding the Tree View	12
	Expand Branch	14
	View/Export List Results	14
	Highlight Records in Map	15
	Select Record & View Details	16
	Working with the Interactive Map (GIS)	17
	GIS Overview	17
	Toolbar	17
	Navigating the Map	18
	Select and Query Features	19
	Laver Controls	23

# **Getting Started**

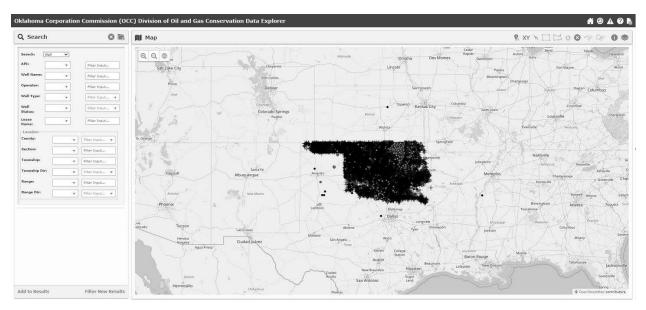
# Page-Level Tools

The Data Explorer system home page contains the following page-level tools:

- OCC Home: opens the agency's website in a new tab
- Restart Session: clears all current selections and reloads the webpage
- Alerts: displays alerts related to the Data Explorer system
- Help: opens the Data Explorer system Help file in a new tab
- **Reporting**: opens the Data Explorer Reporting menu; click the licon for instructions on running a report

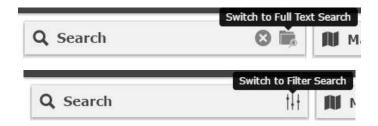
# Page Layout

Upon accessing the Data Explorer system, you are presented with two panes: a <u>Search</u> pane and an interactive <u>Map</u> (GIS) pane. From the search pane, users can open a <u>List Results</u> pane that displays a summary list of the search results and a <u>Details</u> pane, which displays detailed information for selected records.



# Search Pane

The search pane is comprised of a search engine with a filter search or full text search option. Upon successful return of records, the search pane will be populated with a list, organized in a <u>tree</u> <u>view</u> structure, of all records that met the search criteria.



# Map Pane

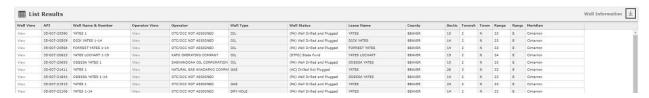
The interactive map pane displays a map of data layers, such as wells, permits, and geographical borders. With the various tools, a user can zoom in and out of the map, select and identify features, control which data layers are displayed, and more. Additionally, when a record is selected in the <a href="tree-view">tree</a> view, the corresponding feature is also selected in the map and the map automatically zooms to that feature.



#### List Results Pane

The list results pane displays a summary list of the search results.

When a Show In List icon is selected in the <u>search</u> pane, all records returned for that search grouping are opened in a new browser tab, which can then be exported as a CSV file. Clicking a record's link from within the list results pane opens that record's <u>details</u> pane in a new browser tab.

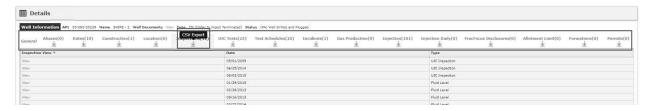


#### **Details Pane**

The details pane lists detailed information about selected individual records.

When a specific record is selected in the <u>search</u> or <u>map</u> pane, the details of that record are displayed in the details pane in a new browser tab. Clicking another record's link from within the details pane opens that records details within the same browser tab.

- Click the various tab titles to scroll through the information in the details pane
- Tabs formatted as a grid can be exported as a CSV file



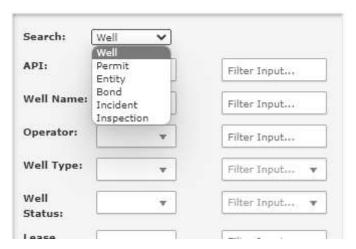
# Searching the Data Explorer System

The Data Explorer system enables users to search for data related to wells and entities using two primary methods: a filter search option in which users can filter data using specific search criteria and a full text search in which users can search for records using any combination of search terms.

#### Filter Search

With the filter search, you can select specific database table fields, such as well class, well status, and/or operator name, by which to search and filter data. If searching by API Number, you must search without dashes – E.g., search for "3508335239", instead of "35-083-35239".

By default, the filter search option presents well-related filters. You can change the dataset to search by selecting another option in the Search dropdown box.



#### To run a filter search:

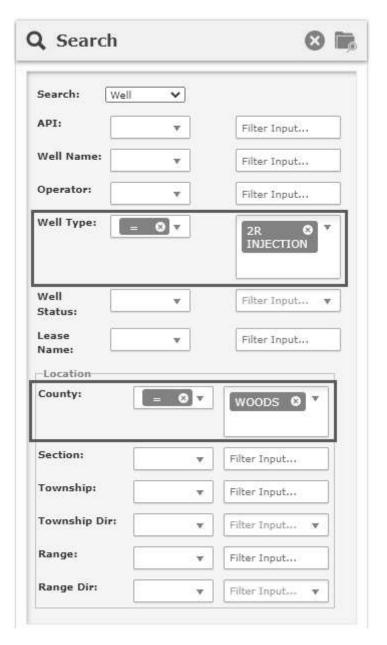
• If applicable, click the Switch to Filter Search icon to open the filter search



- In the dropdown box next to the chosen field, select the comparison method (e.g., contains, equals, greater than, etc.)
- In the text box, enter or select the value for your filter
- If the filter is a dropdown, you can add multiple values to your filter set by clicking back into the field and selecting an additional value
  - When you filter for multiple values <u>for the same filter</u>, the filters are run using an OR clause, not an AND clause. For example, if you run a search using the following filters, the Data Explorer system will return wells whose Well Type is OIL <u>or</u> OIL\GAS.



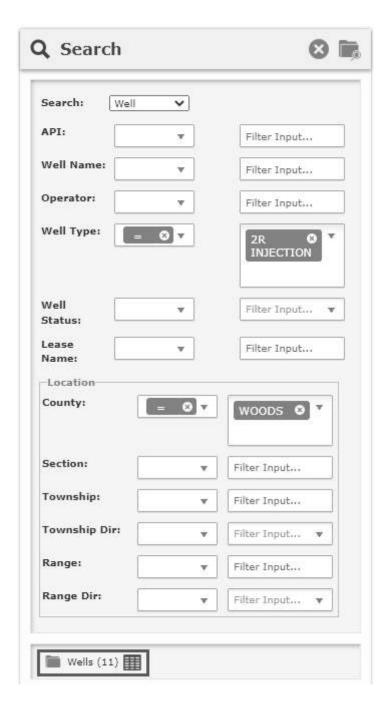
• If multiple filters of different types are applied, the search will be ran using an AND clause. For example, if you run a search using the following filters, the Data Explorer system will return wells whose Well Type is 2R INJECTION and that is located in the County of Woods.



- To clear a specific filter, click the field's "x" button
- To clear all filters, click the Reset Filters icon at the top of the pane



- Once all criteria is entered, click the Filter New Results button
  - The <u>search</u> pane will display a <u>tree view</u> of your results <u>below the filters</u>. You may have to vertically scroll down to see the results.



• To run another search and add the results to the previous filter results, apply the applicable filters and click the Add to Results button; this allows users to compile records using multiple filter sets in order to combine them into a single <u>list results</u>.



• To run a new search and replace the previous results; apply the applicable filters and click the Filter New Results button

# Full Text Search

With a full text search, you can enter any of the following terms or combination of terms in the search text box to search the Data Explorer system.

- API Number (with or without dashes)
- Permit Number
- Well Name and Number
- Operator Name

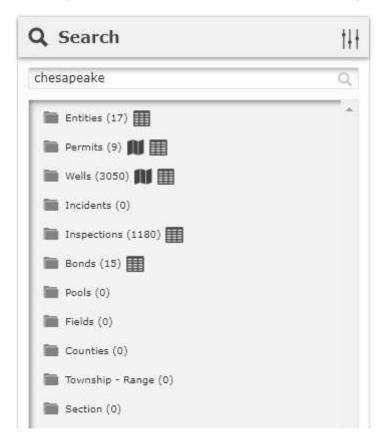
- Bond Number
- Guarantor Name
- Incident Number
- Formation Name

#### To run a full text search:

If applicable, click the Switch to Full Text Search icon to switch to a full text search



• Enter a search term or phrase into the text box and click the <Enter> key or Search icon



#### **Location Searches**

Data Explorer also includes the following location searches. These additional location searches return a list of wells within that geographical area.

- Counties (Full Text Search format: County name E.g., "Woods")
- Township / Range
  - Filter Search format: the Township and Range filters (along with their corresponding Direction filters) can be individually applied or combined – E.g.,



Full Text Search format: Township and Range cannot be individually applied; users must search by Township with Direction (space) Range with Direction – E.g., "1N 2E"

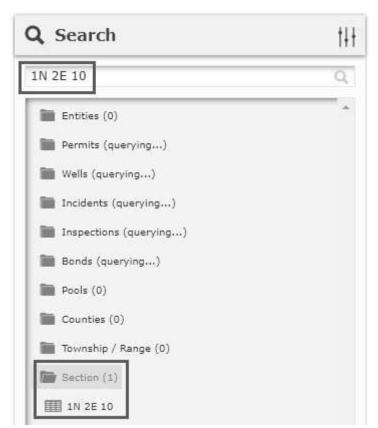


#### Section

 Filter Search format: the Section filter can be individually applied or combined with the Township and Range filters – E.g.,



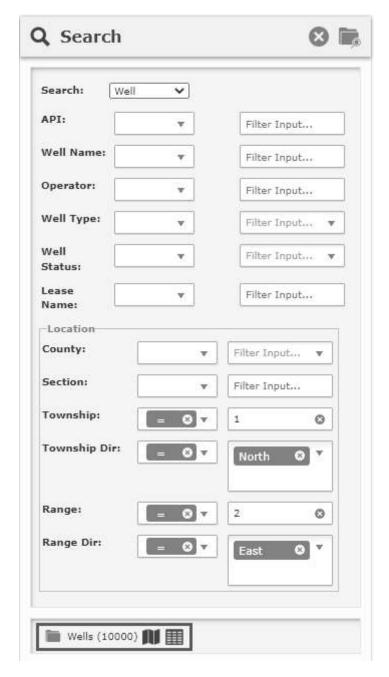
Full Text Search format: Section cannot be individually searched; users must search by
 Township with Direction (space) Range with Direction (space) Section – E.g., "1N 2E 10"



# Understanding the Tree View

When a <u>search</u> is executed, the results are returned in a tree view. The total number of records returned for each branch is displayed at the end of the branch's label.

The Data Explorer system caps the number of records returned from a search result to 10,000 records – E.g.,



- Clicking a branch expands the node to display the search result records. Clicking the branch again collapses the node.
- Clicking the Show In List icon opens a summary list of the search results for that branch in a new browser tab, which can then be exported as a CSV file.
- Clicking the Show In Map icon  $\blacksquare$  highlights the search results for that branch in the  $\underline{\mathsf{map}}$  pane.

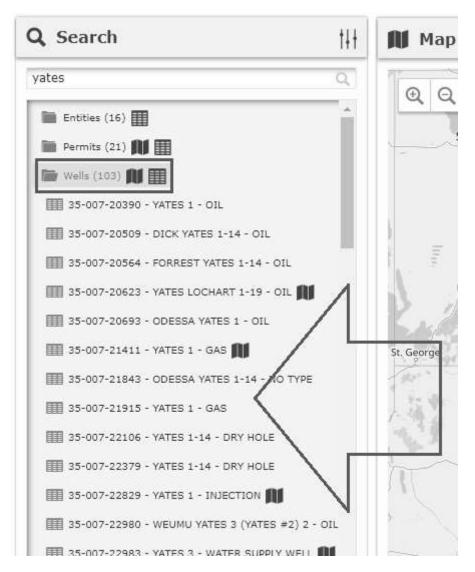
To view a specific record's details, either expand the branch to choose a specific record, or click the record's link in the <u>list results</u> pane to open the record's <u>details</u> pane in a new browser tab.

# **Expand Branch**

Once a <u>search</u> is executed and the tree view is populated:

• Click the folder icon next to any branch to expand it (click the folder icon next to any expanded branch to collapse it).

A list of available records is displayed below the branch in the <u>search</u> pane.



# View/Export List Results

• Click the Show In List icon next to applicable branches to open the search result's <u>list results</u> pane in a new browser tab.

This list can be exported as a CSV file by clicking the CSV Export icon 4.

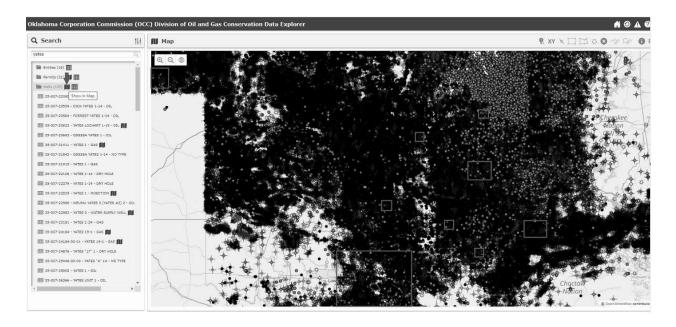


# Highlight Records in Map

• Click the Show In Map icon next to applicable branches to highlight the search results in the map pane.

This highlight can be cleared by clicking the Clear Selection icon in the map toolbar.



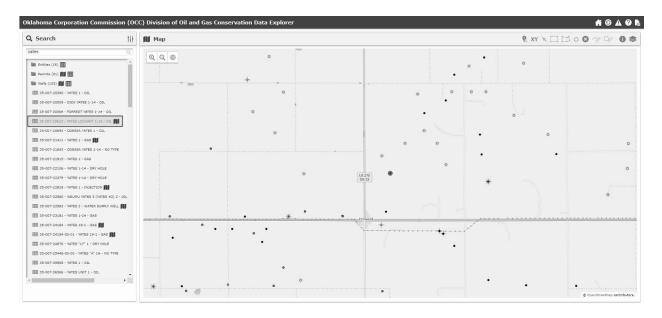


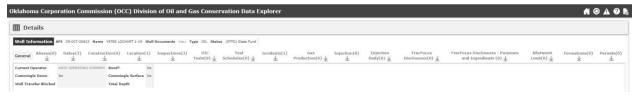
#### Select Record & View Details

To view detailed information about a record:

- Expand a branch in the tree view
- Single click a record

The <u>details</u> pane for the selected record opens in a new browser tab and is populated with detailed information about the selected item and, if applicable, the <u>map</u> zooms to and highlights the feature representing the selected item.





View/Export Grid Results

Click the CSV Export icon \*\* next to applicable tabs to export the grid as a CSV file.

# Working with the Interactive Map (GIS)

The interactive map component, known as a Geographic Information System (GIS), enables you to visualize and analyze geographic data pertaining to regulatory activities. With the GIS, you can zoom in and out of the map, select features, and obtain information (attribute values) about features.

#### **GIS Overview**

A GIS, short for Geographic Information System, is a collection of hardware, software, and geographic and non-spatial data with which individuals interact to integrate, visualize, and analyze geographic data.

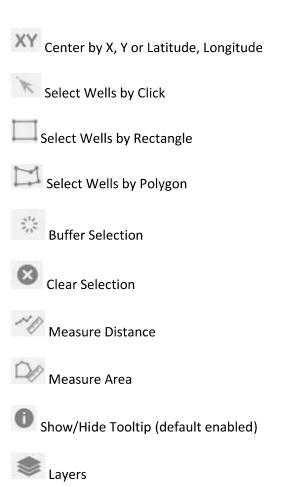
A GIS organizes data into layers. A layer is a visual representation of geographic data in a digital map environment. Typically, a single layer is defined by some sort of aggregation of features that share some type of attribute. For instance, all features representing roads may be aggregated into a single layer, while all features representing oil wells may be aggregated together in another layer. As such, a layer is roughly analogous to a legend item in a traditional paper map. However, a GIS enables users to control which layers are displayed at any particular time. Through the process of toggling layers on and off, a user may be able to discover geographic associations that were not otherwise readily apparent.

The true power of a GIS, though, lies in its ability to do analysis. All geographic features in a GIS are linked to a database by a unique identifier. By selecting a feature, a user can bring up detailed information about each geographic dataset. Additionally, through the process of spatial queries and/or visualization, a user can begin to find specific patterns in their geographic data. For instance, one can determine whether there is a specific geological formation in which a particular type of well regularly occurs or whether certain oil and gas activity occurs in the vicinity of environmentally sensitive areas.

#### Toolbar

The GIS consists of a number of tools which enable you to better interact with the map. The following tools are included in the GIS toolbar:





The specific functionality and how to use each is discussed in turn in the proceeding sections.

# Navigating the Map

Unlike a paper map, a GIS enables a user to change the scale of display in the map, as well as change the area of focus. The following tools are designed for navigation purposes:

# To move the map:

- Single click in the map, hold the left mouse button down, and drag the map to the area in which you wish to view
- Release the mouse button

#### To zoom in:

- Scroll up using the mouse scroll-wheel or
- Select the Zoom In tool
  - EL,
- The map will zoom to the selected area.

#### To zoom out:

• Scroll down using the mouse scroll-wheel or

- Click the Zoom Out tool
- The map will automatically zoom out.

#### To zoom to the full extent of the data (original extent):



- Click the Zoom Full Extent icon
- The map will return to the full extent (original extent) of the data.

# To zoom to specific X,Y coordinates (e.g., latitude and longitude):

Click the Center by X,Y or Latitude, Longitude icon



- In the dialog box, select a coordinate system to use
- Enter the coordinates in the text boxes
- Click the Go button
- The map will re-center based on the specified coordinates.

#### To box zoom:

- If necessary, disable selection or measurement tools
- Hold down the <Shift> key and holding the left mouse button down, drag a box around the features you wish to zoom to
- Release the mouse button
- The map will zoom to the selected area.

#### Select and Query Features

There are three primary methods to find out information about features.

#### To select a single feature:

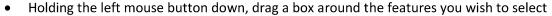
- If necessary, zoom into an area of the map
- Select the Select Wells by Click (view details) tool



- Click on a designated feature in the map
- Add to your selection set by holding down the <Ctrl> key and clicking on an additional feature

#### To select multiple features:

- If necessary, zoom into an area of the map
- Select the Select Wells by Rectangle tool



- Release the mouse button
- Add to your selection set by holding down the <Ctrl> key and dragging another box around the features you wish to add

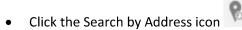
Or

- If necessary, zoom into an area of the map
- Select the Select Wells by Polygon tool



- Add vertices around the features you wish to select by single-clicking the left mouse button
- Double-click the left mouse button to end your drawing
- Add to your selection set by holding down the <Ctrl> key and dragging another box around the features you wish to add

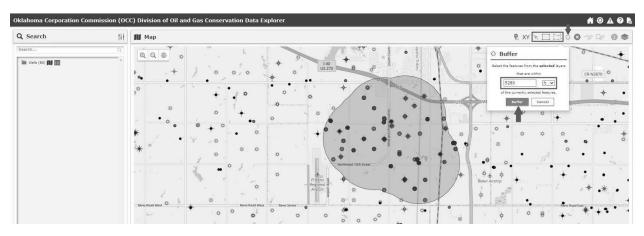
# To query features by an address:



- In the dialog box, enter your search parameters
- Click the Go button
- The map will re-center based on the specified address and a buffer will be applied using the specified distance.

#### To buffer a selection:

- Select feature(s) in the map
- Click the Buffer Selection icon
- In the dialog box, enter your buffer parameters
- Click the Buffer button
- A buffer will be applied to the selected feature(s) using the specified distance.



# To clear a selection:

• Click the Clear Selection icon



#### To measure a distance or area:

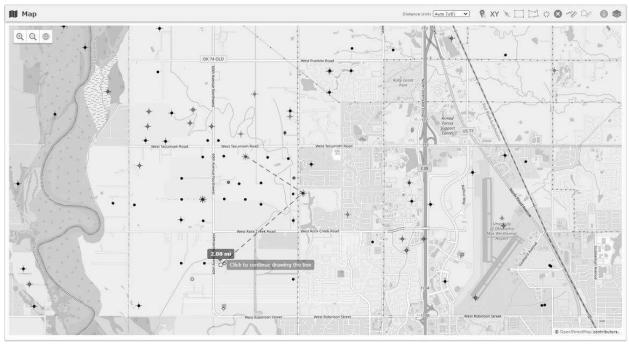
- Click the Measure Distance icon
  or Measure Area icon
- If necessary, change the Distance Unit



If necessary, zoom into an area of the map

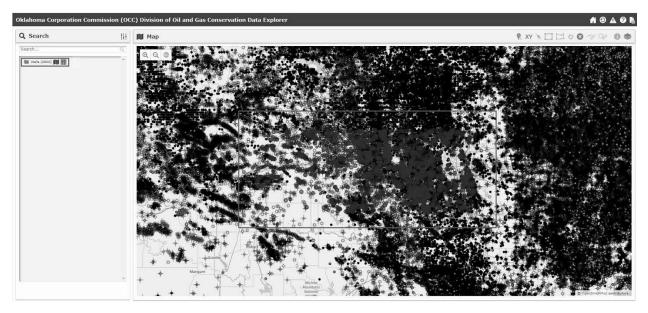
- Click the area in the map you want to start your measurement from
- Drag your mouse to the point you want to measure the distance to
- Add to your measurement by single-clicking the areas you wish to add
- Double-click the left mouse button to end your measurement







Features selected in the map are added to the  $\underline{\text{tree view}}$  in the  $\underline{\text{search}}$  pane. The Data Explorer system caps the number of records selected from the map to 2,000 records – E.g.,



- Click the folder icon next to any branch to expand it
- Click the Show In Map icon to highlight the search results for that branch in the map pane
- Click the Show In List icon to open the search result's list results pane in a new browser tab



To view a specific record's details, either expand the branch to choose a specific record, or click the record's link in the list results pane to open the record's details pane in a new browser tab.

#### To show details about a feature:

- If necessary, zoom into an area of the map
- If necessary, select the Show/Hide Tooltip icon to enable the tool



- Hover your mouse over a designated feature in the map to display a link to the feature's details pane
- Click the link

The details pane for the selected feature opens in a new browser tab and is populated with detailed information about the selected item, but the feature is not added to the tree view (i.e., feature is not considered selected).

#### Layer Controls

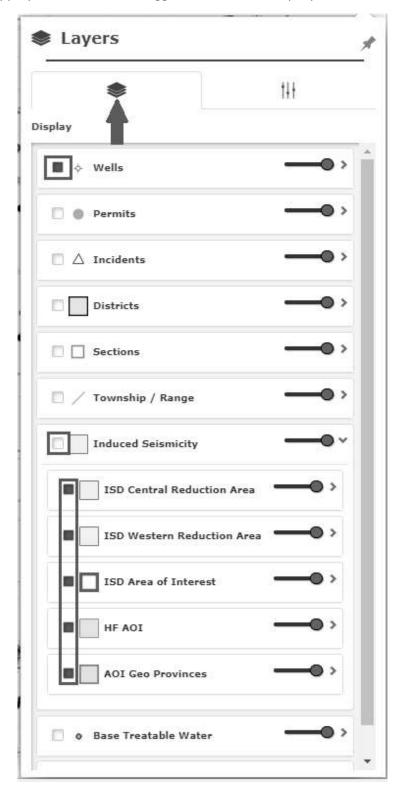
The GIS includes tools for displaying the layer legends, applying visible layers, and applying selectable layers.

Visible indicates whether the layer is currently displayed in the map. For each non-base map layer, there is a checkbox that controls the layer's visibility. For layers with child-layers (e.g., Induced Seismicity), there is a parent checkbox that controls the visibility for all layers for that grouping; users can also toggle on and off the visibility for each child-layer.

# To view the layer legends and apply a visible layer:

- Click the Layers icon
- To toggle the Layers menu's continual visibility, click the Pin/Unpin icon

- Click on the Visible tab
- Click the appropriate checkbox to toggle the layer's visibility
- Click the appropriate checkbox to toggle between base map layers



Selectable indicates whether or not features in the layer can be selected in the map. For each non-base map layer, there is a checkbox that controls the layer's selectability. For layers with child-layers (e.g., Base Treatable Water), there is a parent checkbox that controls the selectability for all layers for that grouping; users can also toggle on and off the selectability for each child-layer.

# To apply a selectable layer:





- Click on the Selectable tab
- Click the appropriate checkbox to toggle the layer's selectability

