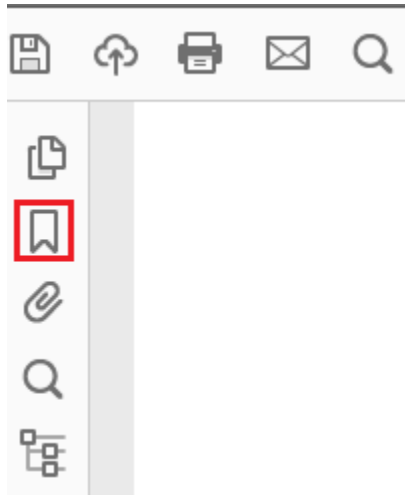


[Help / About](#)

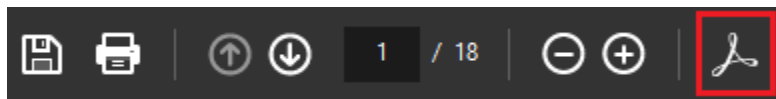
Welcome to the MI EGLE-OGMD Data Explorer system

System Overview

Thank you for utilizing the MI EGLE-OGMD 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 browsers (e.g., Chrome, Edge).

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Getting Started

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



Search: clears all current filters and 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  icon for instructions on running a report

[EGLE](#)

: opens the EGLE's website in a new tab

[Oil & Gas](#)

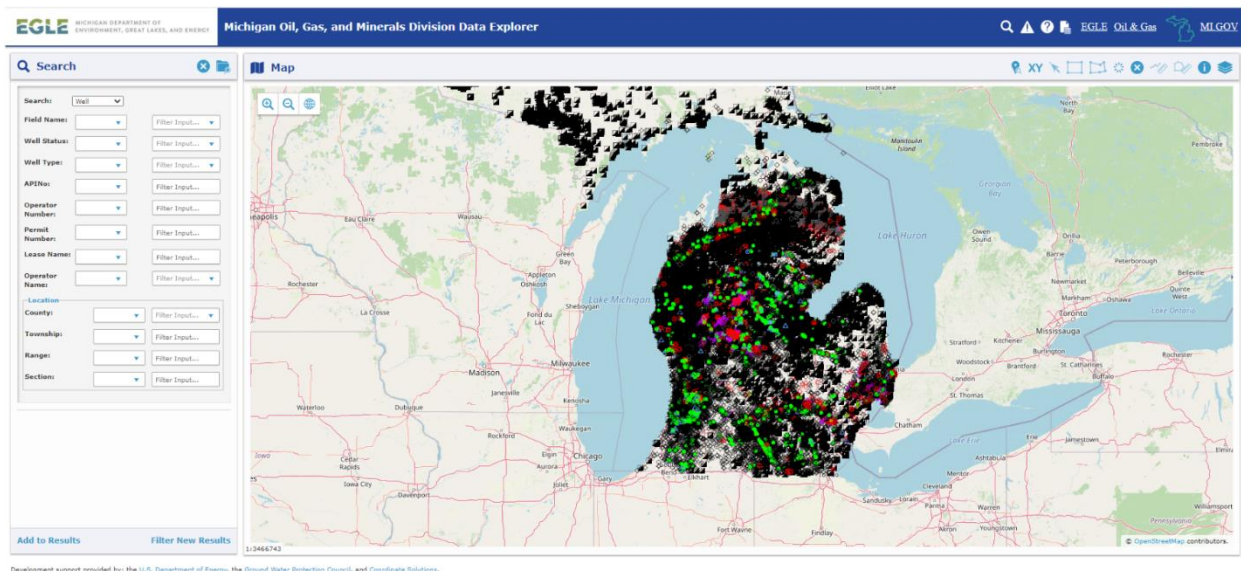
: opens the EGLE-OGMD's website in a new tab



: opens the State of Michigan's website in a new tab

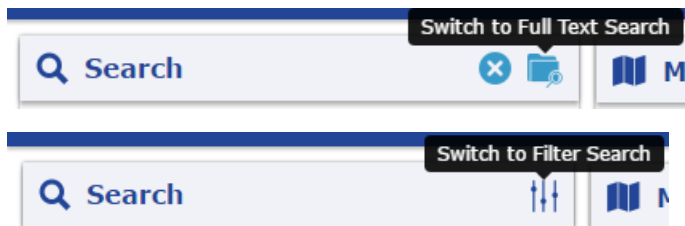
Page Layout

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



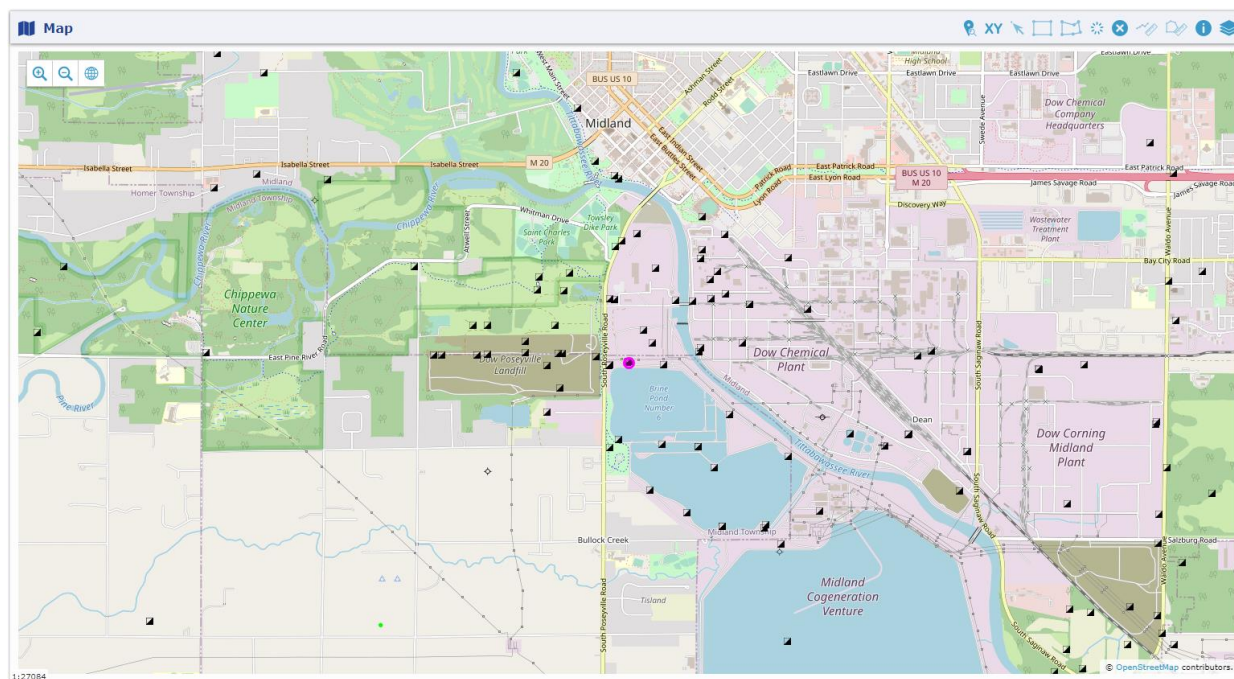
Search Pane

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 tree view structure, of all records that met the search criteria.




Map Pane

The interactive map pane displays a map of data layers, such as wells, directional well tracks, and geographical boundaries. 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 tree view, the corresponding feature is also selected in the map and the map automatically zooms to and highlights 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 search 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 details pane in a new browser tab.

List Results																			Well Information			
View	API #	Name	Type	Status	State	City	Operator	Original Op	SurfaceOem	Original Typ	Basin	Permit No	WellPermitt	Lease Name	Well No	Field	Deepest For	Ref_Const	Ref_Taps	Confidential	Longitude	Latitude
View	21-009-57837-00-00	ANTHREM COUNTY Natural Gas W. Producing		21	ANTHREM	RIVERSIDE EN. BANK ONE NA	ANTHREM COUN					57837		ANTHREM COUN' C4-18	Antnrm County	TRAVERSE		K	False	-85.15389	44.91964	
View	21-009-57838-00-00	ANTHREM COUNTY Natural Gas W. Producing		21	ANTHREM	RIVERSIDE EN. BANK ONE NA	ANTHREM COUN					57838		ANTHREM COUN' D4-18	Antnrm County	TRAVERSE		K	False	-85.15422	44.91954	
View	21-009-58461-00-00	STATE FOREST H. Location	Terminated Per	21	ANTHREM	RIVERSIDE EN. BANK ONE NA	ANTHREM COUN					58461		STATE FOREST D1-13	Antnrm County	TRAVERSE LN		K	False	-85.22725	44.90232	
View	21-009-58462-00-00	STATE FOREST H. Location	Terminated Per	21	ANTHREM	S R W INC						58462		STATE FOREST D2-13					False	-85.22347	44.90263	
View	21-009-58859-00-00	STATE FOREST H. Location	Terminated Per	21	ANTHREM	S R W INC						58859		STATE FOREST A1-13					False	-85.22845	45.00133	

Details Pane

The details pane lists detailed information about selected individual records.

When a specific record is selected in the **search** or **map** 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

Details

Well Information

Name: ADAMS, FRANK Number: 4 API Well #: 21-111-01277-00-00 Type: Oil Well Status: Plugging Approved Field: Mount Pleasant

General

Location

Well Files

E-Logs

Field Files

Construction(1)

Dates(13)

Injection(0)

Permit(1)

HIT(0)

PRU(1)

Elevation Type

SURFACE

Section

10

TWP

14N

RNG

20E

Sectional Desc

04/28/2000

Latitude

43.41429

Longitude

-84.54732

Elev Gr

County

MIDLAND

NS Feet

990

From N/S

S

EW Feet

330

From E/W

W

CSV Export

Searching the Data Explorer System

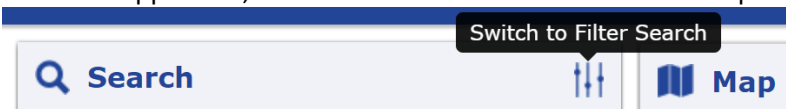
The Data Explorer system enables users to search for data related to wells, oil and gas operators, permits, facilities, PRUs, and inspections using two primary methods: a filter search option in which users can filter data using specific search criteria and a full text search in which users can search for records using any combination of search terms.

Filter Search

With the filter search, you can select specific database table fields, such as well status, well type, and/or operator number, by which to search and filter data. If searching by APINo, you must search by the 14-digit API number without dashes – E.g., search for “21111012770000”, instead of “21-111-01277-00-00”.

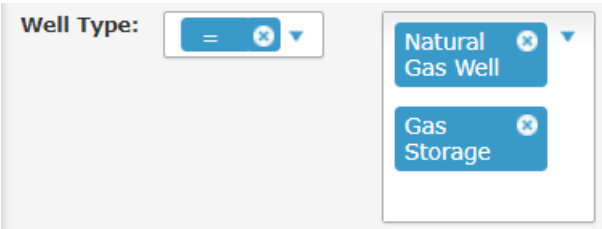
To run a filter search:

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

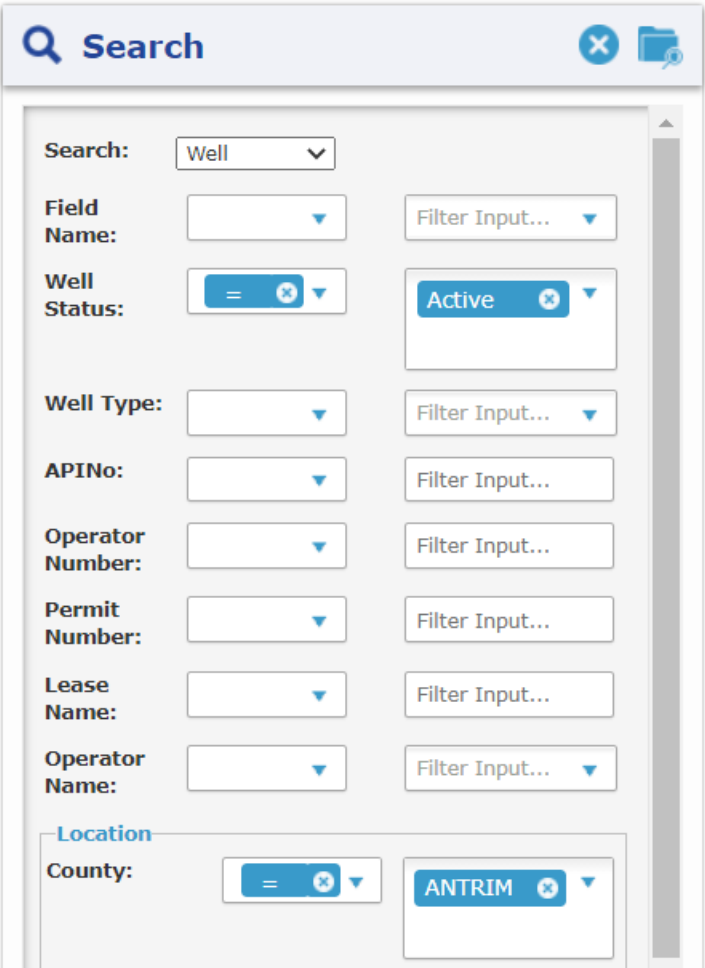


- If applicable, change the Search type
- In the dropdown box next to the chosen field, select the comparison method (e.g., like (starts with), equals, greater than, etc.)
- In the text box, enter or select the value for your filter
- If the filter is a dropdown, you can add multiple values to your filter set by clicking back into the field and selecting an additional value
 - When you filter for multiple values for the same filter, the filters are ran using an OR clause, not an AND clause. For example, if you run a search using the following filters,

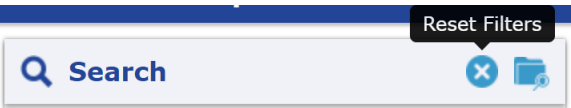
the Data Explorer system will return wells whose Well Type is Natural Gas Well OR Gas Storage.



- 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 Status is Active AND that's located in the County of Antrim.



- 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 at the bottom of the pane
 - The search pane will display a tree view of your results below the filters. You may have to vertically scroll down to see the results.

The screenshot shows a 'Search' pane with a title bar containing a magnifying glass icon and a close button. Below the title bar, there is a 'Search:' dropdown menu set to 'Well'. The main area contains two columns of filters. The left column includes: 'Field Name:' (dropdown), 'Well Status:' (dropdown with '=' and a plus icon), 'Well type:' (dropdown), 'APINo:' (dropdown), 'Operator Number:' (dropdown), 'Permit Number:' (dropdown), 'Lease Name:' (dropdown), and 'Operator Name:' (dropdown). The right column includes: 'Filter Input...' (dropdown), 'Active' (dropdown with a plus icon), 'Filter Input...' (dropdown), 'Filter Input...' (dropdown), 'Filter Input...' (dropdown), 'Filter Input...' (dropdown), and 'Filter Input...' (dropdown). Below these filters is a 'Location' section with: 'County:' (dropdown with '=' and a plus icon, showing 'ANTRIM' in a blue box), 'Township:' (dropdown), 'Range:' (dropdown), and 'Section:' (dropdown). At the bottom of the filter section, there is a red-bordered box containing a folder icon, the text 'Wells (58)', and two small icons (a book and a grid). At the very bottom of the pane, there are two buttons: 'Add to Results' and 'Filter New Results'. A red arrow points down to the 'Filter New Results' button.

- To run another search and add the results to the previous filter results, apply the applicable filters and click the Add to Results button at the bottom of the pane; this allows users to compile records using multiple filter sets in order to combine them into a single list results.

Search

Search:
Well

Field Name:
Filter Input...

Well Status:
Filter Input...

Well Type:
Filter Input...

APINo:
Filter Input...

Operator Number:
Filter Input...

Permit Number:
Filter Input...

Lease Name:
Filter Input...

Operator Name:
=
A AND D EXPLORATIO LLC

Location

County:
=
MIDLAND

Township:
Filter Input...

Range:
Filter Input...

Section:
Filter Input...

Wells (58+2)

Add to Results
Filter New Results

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

Location Searches

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

- County**
- Township** (search format: requires 3 numeric characters along with its corresponding directional abbreviation – E.g., search for “005N” instead of “5N”)

- **Range** (search format: requires 3 numeric characters along with its corresponding directional abbreviation – E.g., search for “002W” instead of “2W”)
Section (search format: requires 2 numeric characters – E.g., search for “07” instead of “7”)

TRS filters can be individually applied or combined – E.g.:

The image shows two panels of the TRS filter interface. Both panels have a 'Location' header. The left panel shows filters for County, Township (001N), Range (001E), and Section. The right panel shows the same filters but with the Section value set to 16. Each filter has a dropdown menu for the operator (e.g., =, >, <) and a text input field for the value.

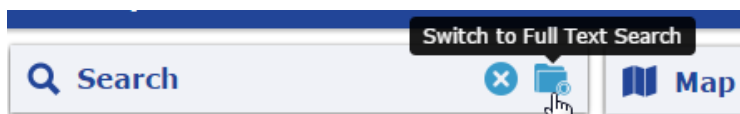
Full Text Search


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 using a “contains” search parameter.

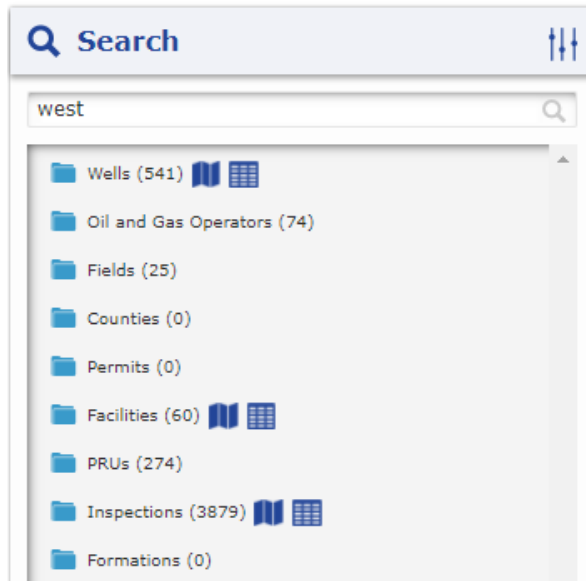
- API Number (without dashes)
- Well / Lease Name
- Operator Name
- Field Name
- County Name
- Permit Number
- Facility Name
- Facility Number
- Formation Name

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 



Understanding the Tree View

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

- 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  zooms to and highlights the search results for that branch or result record in the map pane.

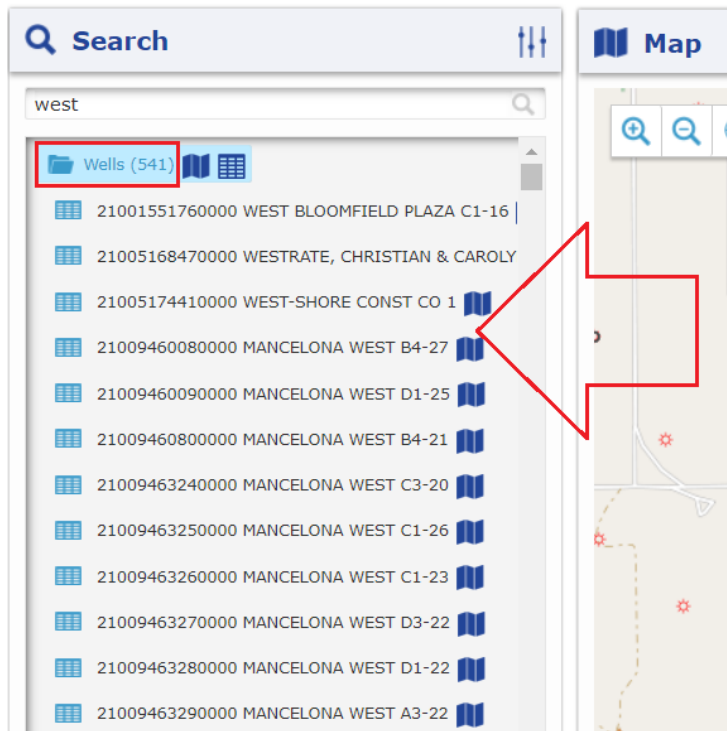
To view a specific record's details, either expand the branch to choose a specific record, or click the record's link in the list results pane to open the record's details pane in a new browser tab.

Expand Branch


Once a search 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).

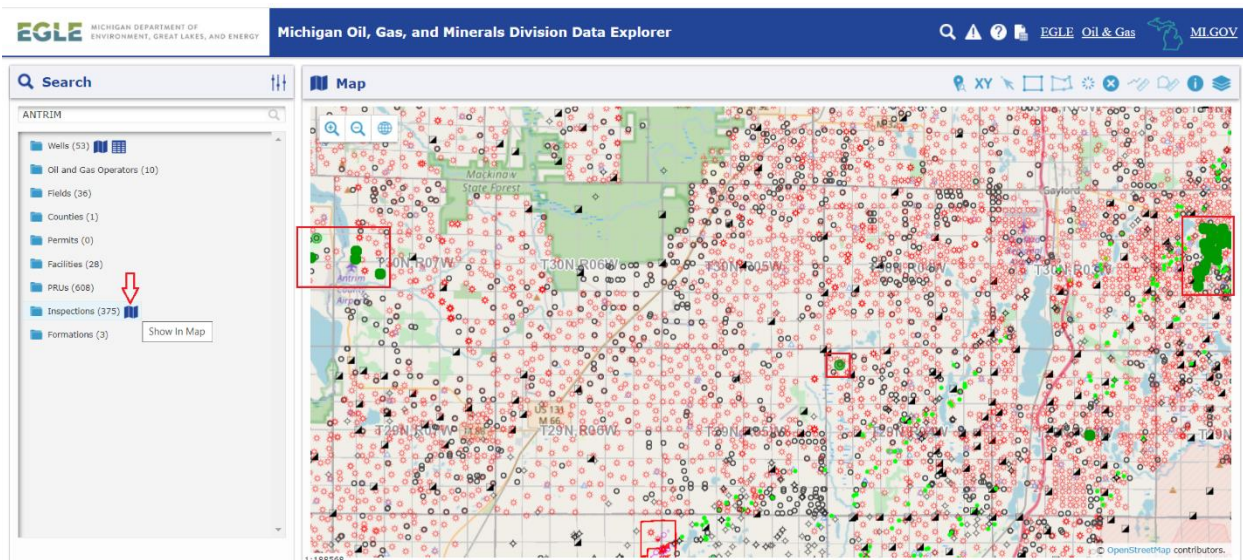
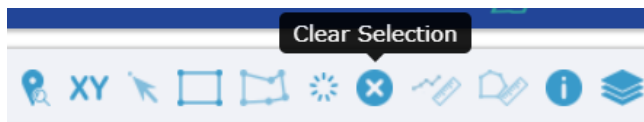
A list of available records will be displayed below the branch in the search pane.

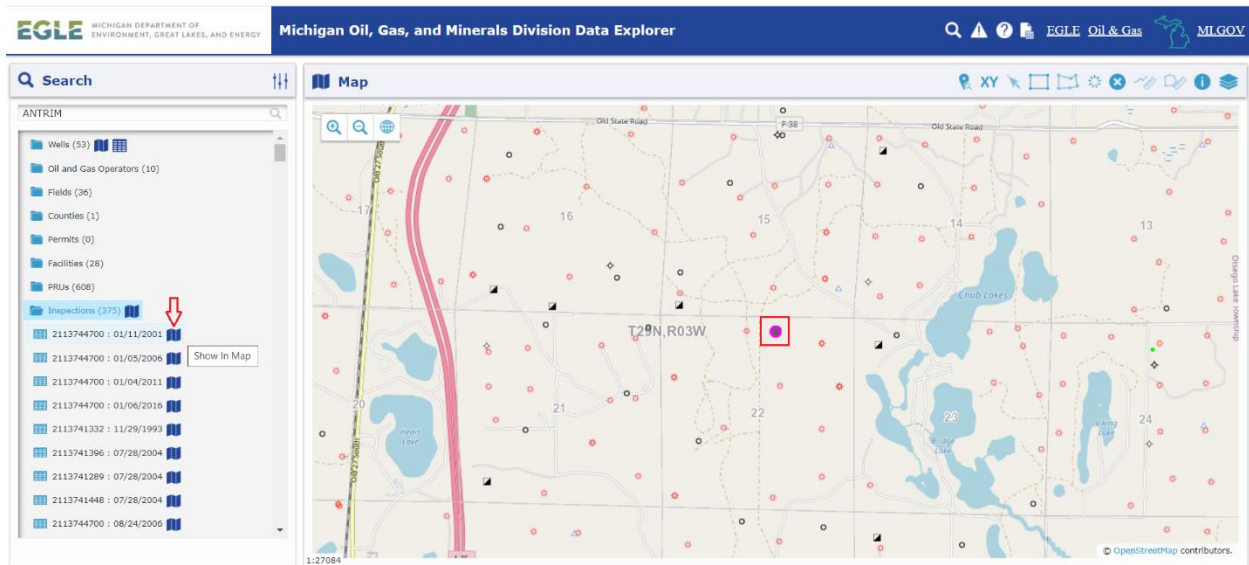


Show Records in Map


- Click the Show In Map  icon next to applicable branches or result records to zoom to and highlight the search results in the map pane.


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

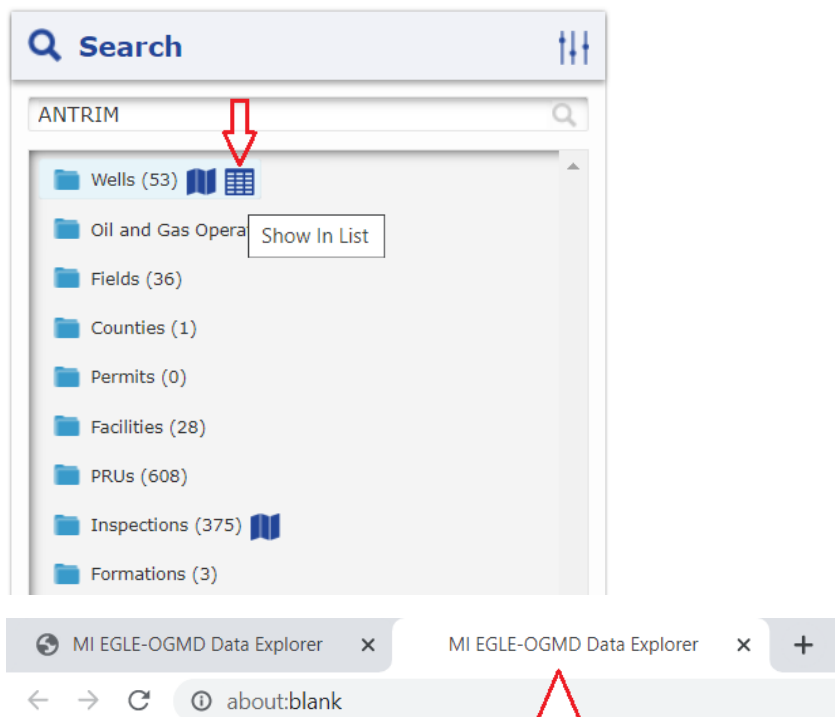




View/Export List Results

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

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



Loading data, please wait...

View	API #	Name	Type	Status	State	Cnty	Operator	Original Op	Surface Own	Original Typ	Basin	Permit No	Well/Permit	Lease Name	Well No	Field	Deepest For	Ref. Cont
View	21-009-57837-00-00	ANTRIM COUNTY Natural Gas Well	Producing	21	ANTRIM	RIVERSIDE EN	BANK ONE NA	ANTRIM COUN				57837		ANTRIM COUN	C4-18	Antrim County	TRAVERSE	
View	21-009-57838-00-00	ANTRIM COUNTY Natural Gas Well	Producing	21	ANTRIM	RIVERSIDE EN	BANK ONE NA	ANTRIM COUN				57838		ANTRIM COUN	D4-18	Antrim County	TRAVERSE	
View	21-009-58461-00-00	STATE FOREST Natural Gas Well	Producing	21	ANTRIM	RIVERSIDE EN	BANK ONE NA	ANTRIM COUN				58461		STATE FOREST	D1-13	Antrim County	TRAVERSE	
View	21-009-58462-00-00	STATE FOREST Location	Terminated Per	21	ANTRIM	S R W INC		ANTRIM COUN				58462		STATE FOREST	D2-13			
View	21-009-58462-00-00	STATE FOREST Location	Terminated Per	21	ANTRIM	S R W INC		ANTRIM COUN				58462		STATE FOREST	D1-13			

Select Record & View Details

To view detailed information about a record:

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

The details pane for the selected record will open in a new browser tab and will be populated with detailed information about the selected item and, if applicable, the map will zoom to and highlight the feature representing the selected item.

Michigan Oil, Gas, and Minerals Division Data Explorer

Search: beck

Wells (146)

- 21001435750000 BECK 1-7
- 21001435750100 BECK 1-7
- 21001435750200 BECK 1-7A
- 21001435750300 BECK 1-7B
- 21001435750400 BECK 1-7C HD1
- 21001497480000 BECK A4-7
- 21001501420000 BECK 4-8
- 21001502090000 BECK 12-5
- 21001517810000 BECK 4-8
- 21001530630000 STATE MITCHELL & BIRKBECK ET A
- 21001542990000 VANHAVERBECK B1-13
- 21001563080000 VAN HAVERBECK A3-8
- 21001563090000 STATE CALEDONIA & VAN HAVERBI
- 21001571010000 VAN HAVERBECK C2-5
- 21005053130000 BECK, JIM 1
- 2100505380000 OVERBECK, JAMES 1

Map: 1:27084


Details

Well Information: Name BECK Number 1-7 API Well # 21-001-43575-00-00 Type Natural Gas Well Status Plugging Approved Field Hubbard Lake

General Location Well Files E-Logs Field Files Construction(4) Dates(21) Injection(0) Permit(1) MIT(0) PRU(1)

Current Operator BROWN H L JR Bond? Yes

View/Export Grid Results

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

Details

Well Information: Name BECK Number 1-7 API Well # 21-001-43575-00-00 Type Natural Gas Well Status Plugging Approved Field Hubbard Lake

General Location Well Files E-Logs Field Files Construction(4) Dates(21) Injection(0) Permit(1) MIT(0) PRU(1)

Current Operator BROWN H L JR Bond? Yes

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

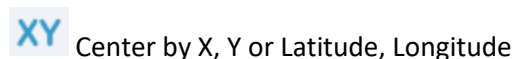
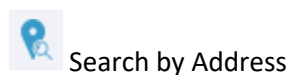
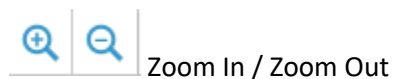
A GIS, short for Geographic Information System, is a collection of hardware, software, and geographic and non-spatial data with which individuals interact to integrate, visualize, and analyze geographic data.

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 on the GIS toolbar:





Buffer Selection



Clear Selection



Measure Distance



Measure Area



Show/Hide Tooltip (default enabled)



Layers

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 
- 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


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:

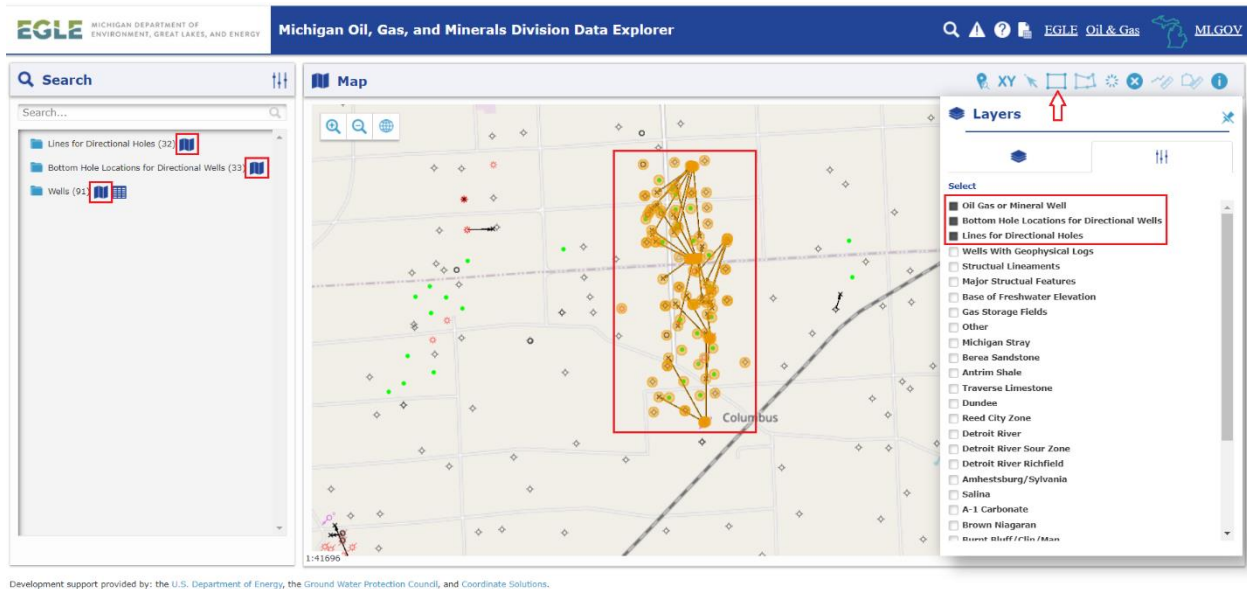
- If necessary, zoom into an area of the map
- Select the Select Wells by Rectangle tool 
- Holding the left mouse button down, drag a box around the features you wish to select
- Release the mouse button
- Add to your selection set by holding down the <Ctrl> key and dragging another box around the features 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 drawing another polygon around the features you wish to add


Selections from the map are added to the tree view in the search pane with GIS branches correlating to the enabled selectable layers. Clicking the Show In Map icon  zooms to and highlights the search results for that branch or result record in the map pane.

The Data Explorer system caps the number of records selected from the map to 1,000 records.



To query features by an address:



- Click the Search by Address icon 
- An address settings window will open, allowing you to set and run your search parameters


Search by Address

Select the features from the **selected** layers at the address


within the distance of

The features will be selected in the map and added to the tree view in the search pane.

- Click the folder icon next to any branch to expand it
- Click the Show In Map icon  to zoom to and highlight the search results for that branch or result record 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.

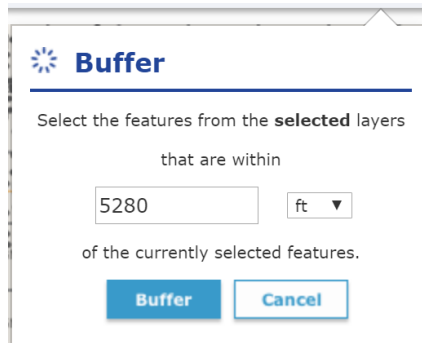
To show details about a feature:

- 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 will open in a new browser tab and will be populated with detailed information about the selected item, but the feature will not be added to the tree view (i.e., feature will not be considered selected).

To buffer a selection:



- Click the Buffer Selection icon 
- A buffer settings window will open, allowing you to set and run your buffer parameters






To clear a selection:

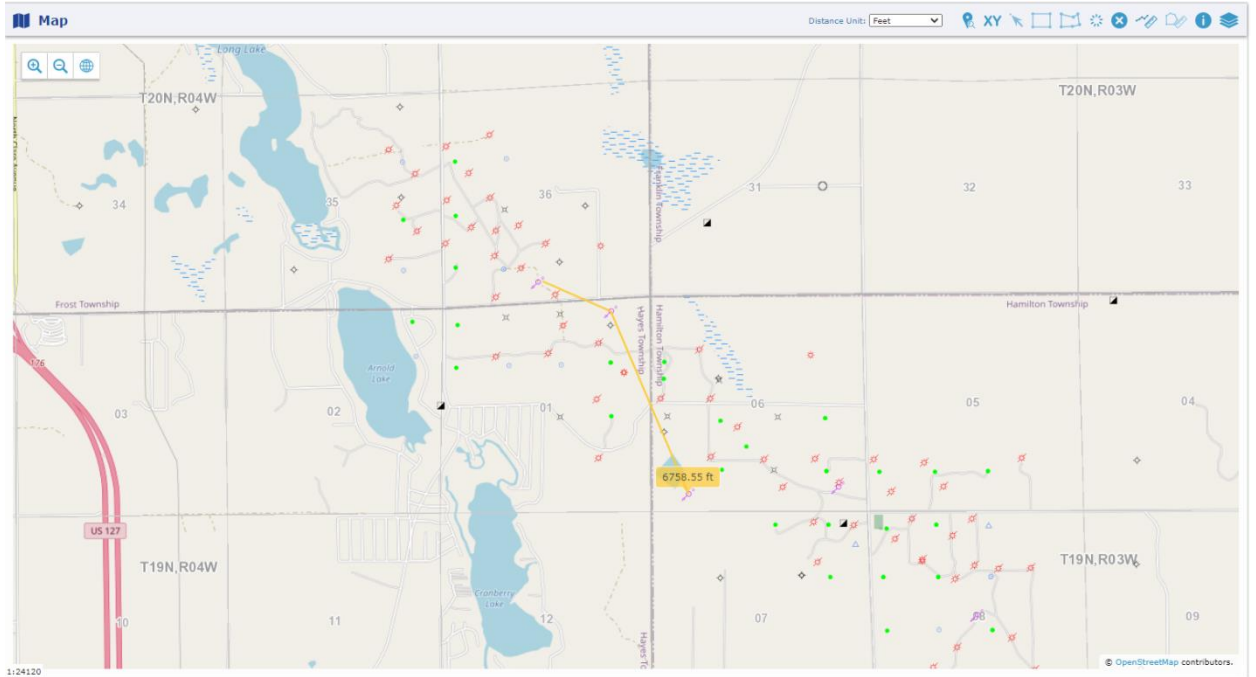
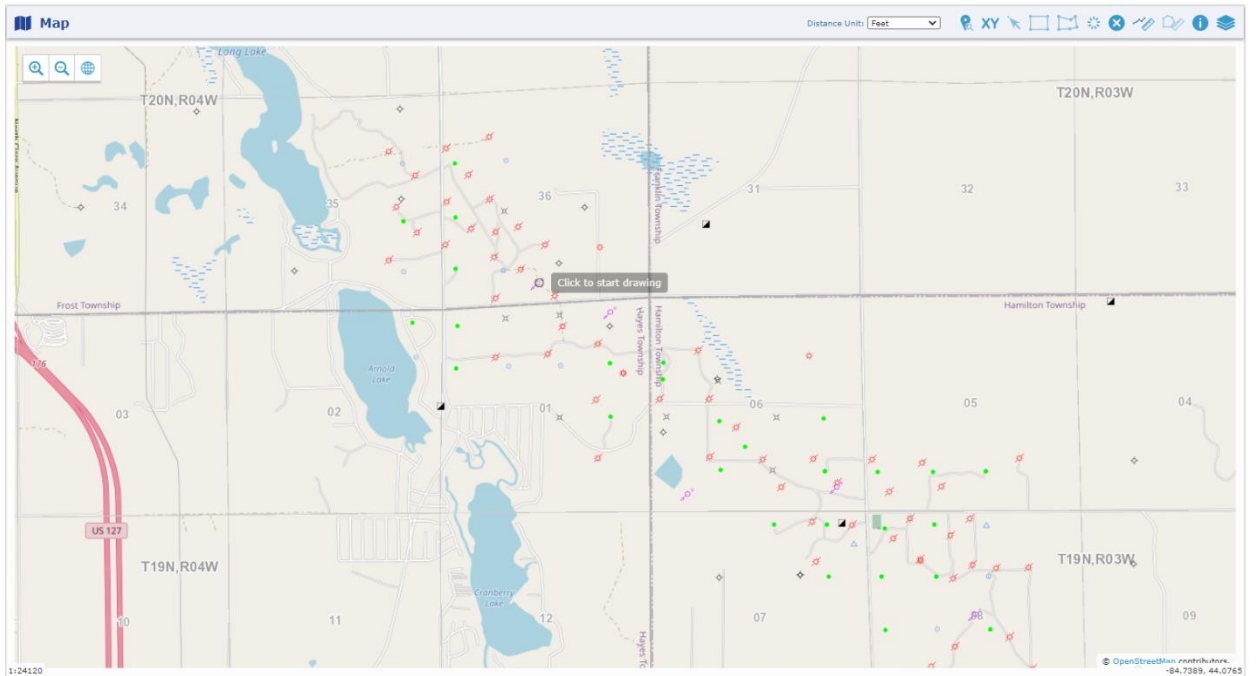
- Click the Clear Selection icon 

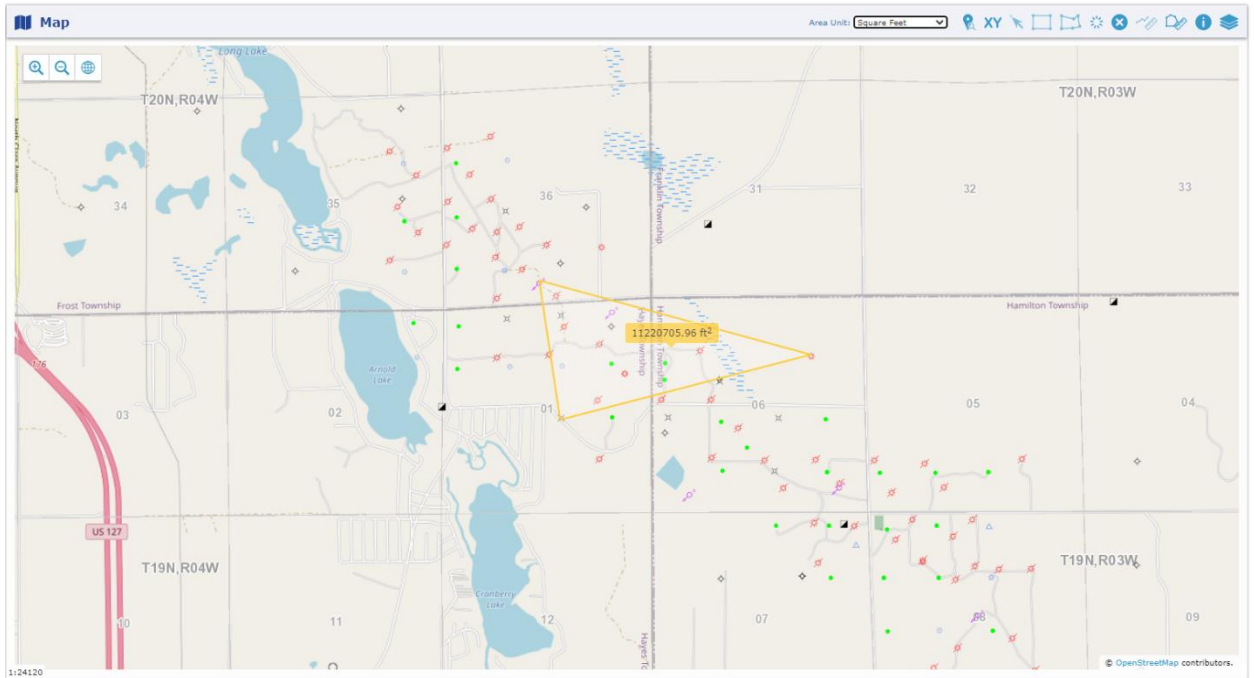
To measure a distance or area:

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




 - “Auto” values automatically update after a certain distance; non-“Auto” values (e.g., Feet) remain in the selected value
- If necessary, zoom into an area of the map
- Select the appropriate measurement tool  
- 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









Layer Controls

The GIS includes tools for displaying the layer legends, applying visible layers, and applying selectable layers. To toggle the Layers menu's continual visibility, click the Pin/Unpin icon 

To view the layer legends and apply a visible layer:

- Click the Layers icon 
- Click on the Visible tab 
- Click the appropriate caret icon  to toggle the layer's legend
- Drag the appropriate slider  to adjust the layer's transparency
- Click the appropriate checkbox to toggle the layer's visibility

Visible indicates whether or not the layer is currently displayed in the map.

To apply a selectable layer:

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

Selectable indicates whether or not features in the layer can be selected in the map.