

Massachusetts Well Location Viewer Guide

Questions or Feedback? Contact: Alex.Gamble@mass.gov or program.director-dwp@mass.gov

What Does This Web Application Depict?

The Massachusetts Well Location Viewer depicts the locations associated with vetted Well Completion Reports (WCRs) submitted to The Commonwealth. The Massachusetts Well Driller Program, a part of MassDEP Drinking Water Program (MassDEP DWP), oversees the proper and safe drilling of wells and is responsible for certifying water well drillers to operate in The Commonwealth. WCRs have been actively collected by The Commonwealth since 1963, and represent private domestic wells, monitoring wells, irrigation wells, geothermal wells, public water supply wells, etc. To date, MassDEP DWP has approximately 200,000 WCRs on file which are available for review on the EEA Data Portal (<https://eeaonline.eea.state.ma.us/Portal/#!/search/welldrilling>).

This web application shows only those wells whose locations have been reviewed and verified by MassDEP DWP. There are additional wells located in the EEA Data Portal that are not in this web application due to unverified well location data. If there is a discrepancy in location data between this web application and the EEA Data Portal, treat the reported information on this web application as the authoritative data. As of March 2023, the Well Driller Database is still under review and both the number and location of points visible on this web application are subject to change. Wells located on a home or structure are not necessarily located within that structure; the precise location of the well is somewhere within the boundaries of the associated parcel. This viewer also currently excludes monitoring wells which are located within a public-right-of-way. Contact us at MassDEP DWP if you have any questions regarding your MA well or this web application.

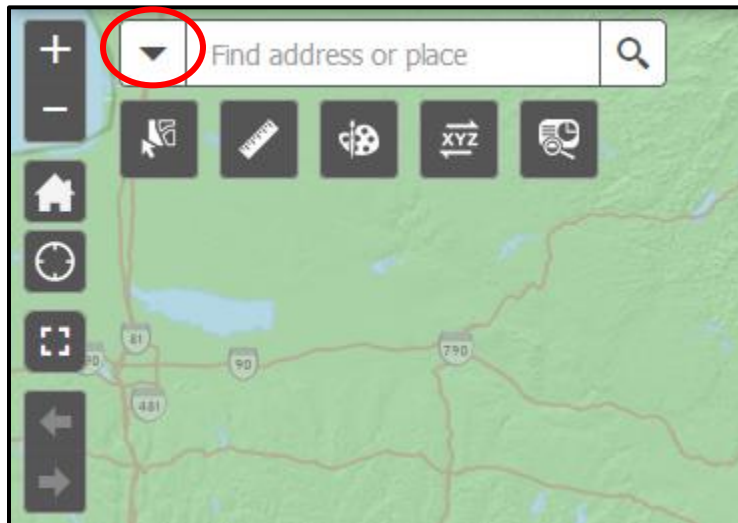
What Can This Web Application Do?

This web application allows users to view Well Completion Report (WCR) data/well locations in all 351 municipalities within The Commonwealth. Users can select, filter and export WCR data in both CSV and PDF file formats. Users can interpolate depicted features using the measurement (See [12.](#) below) and coordinate conversion (See [14.](#) below) tools. Lastly, users can generate custom maps for personal use or share (See [4.](#) below) or Email (See [3.](#) below) custom map views to other users.

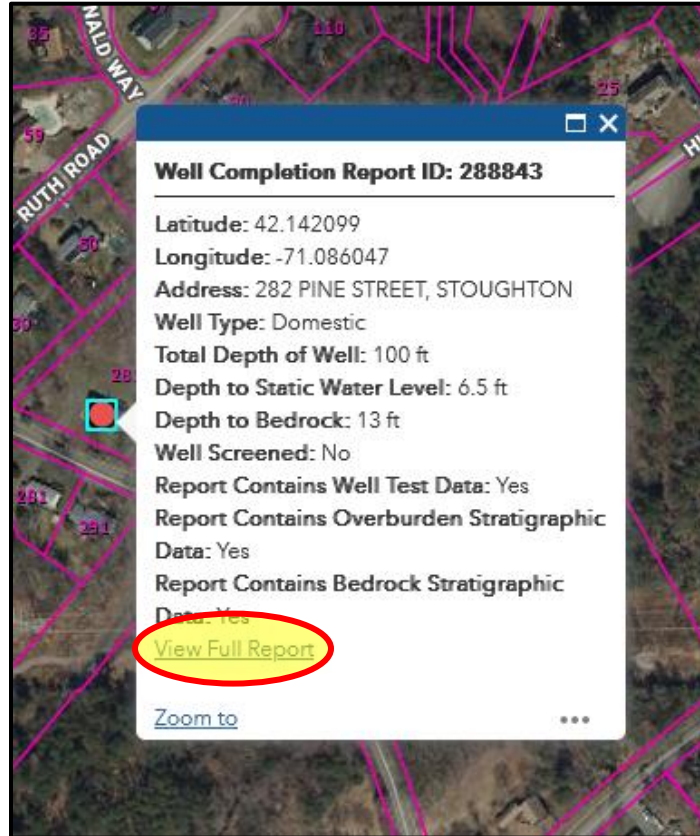
Map Guide

The Map opens with an empty basemap of Massachusetts. Well Locations will not load until you zoom into an area of interest (AOI). As you zoom in further, the basemap will switch to overhead satellite imagery (ortho projection). Parcel boundaries will also load if you zoom in even further. Well locations are programmed to populate at the town level. If this is overwhelming or obscures your search area, you can turn off the well locations layer in the layer menu (See [2.](#) below) until you get to your area of interest, and then turn the well locations layer back on.

The search bar allows you to search the web app by three parameters: Address/place, Well Completion Report ID Number, and Public Water Source Supply ID Number. Click on the Arrow (circled below) to the left of the search bar to switch parameters.



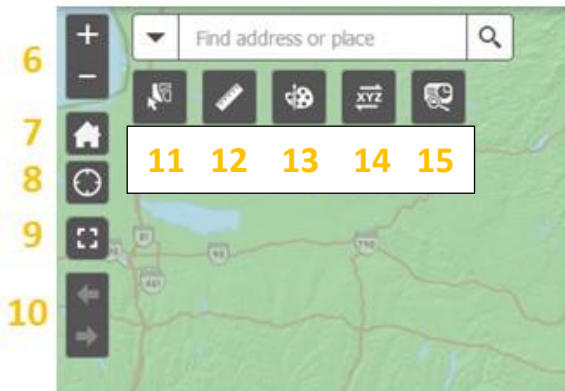
Clicking on any well location will bring up a pop-up which will describe some features about the selected well. Every well location has been assigned a unique Well Completion Report ID Number (WCR ID, 'Well ID'). Every well location also contains a hyperlink to the appropriate Well Completion Report on the EEA Online Data Portal (see circle below). Note: if you are on a mobile phone or tablet, you may need to select the arrow at the top right of the pop-up to see more information regarding that well location. If multiple wells are selected, you can browse through pop-ups by clicking through the arrow on the top right corner of the pop-up.



Top Bar Features

- 1.) Select the legend square to view the legend for each depicted well feature. Well features are organized (colored) on this map according to well type.
- 2.) You can use the layers list square to turn different features on and off, and switch between address, image (Ortho) and USGS topographic basemaps. By selecting the three dots next to each layer, you can disable pop ups and labels. **Note that for well locations, labels are automatically turned off.** You will need to turn them on if you want them to appear on any PDFs or image files you extract from this web app.
- 3.) Select the share square to send your current view to another user via email.
- 4.) Select the print square to export your current view, along with any features you have drawn to a PDF, JPEG, PNG or other file type. Adjust the settings of your printout by selecting the “Advanced” button.
- 5.) Select the about square to read more about the Well Location Viewer.

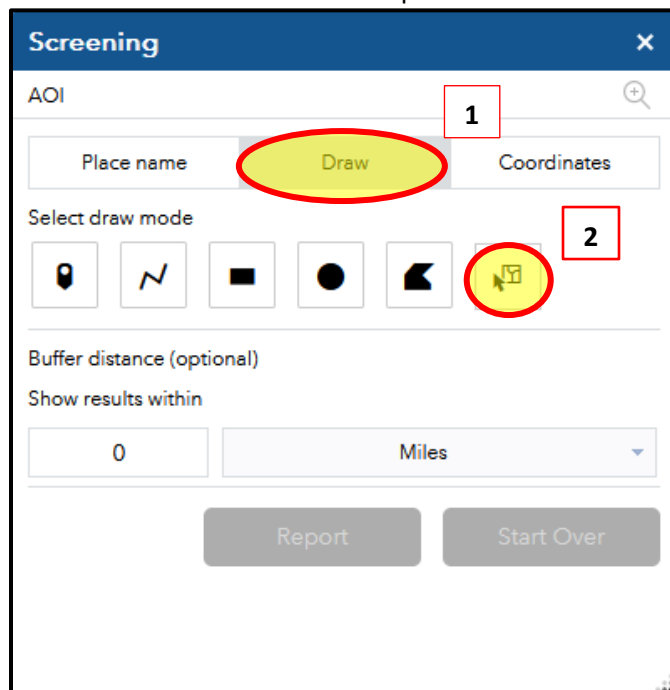
1 2 3 4 5



Attribute Table

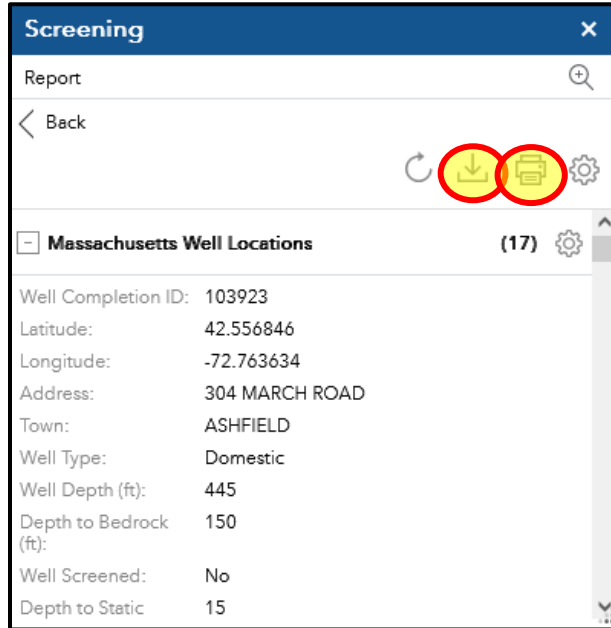
Navigation and Tools

- 6.) The plus and minus buttons zoom the map in and out.
- 7.) Clicking the house resets the map and brings you back to the original view of Massachusetts.
- 8.) The target button brings you to the current location of your phone/computer, if you have location sharing features turned on.
- 9.) The broken square expands the map out of your browser window into a full screen view. Press it again to escape out of full screen.
- 10.) The left and right arrows (undo and redo) allow you to switch between your last AOI and your current AOI.
- 11.) The select tool allows you to drag and select multiple well locations. Summary information about your selection will pop up in a separate window.
- 12.) The measurement tool allows you to determine distance, area and coordinates (lat/long information) on the map.
- 13.) The draw tool allows you to add lines, circles and other shapes. By selecting a shape, you can select the color, style and width of any features you draw. Features you draw will remain on the map until you select the undo button.
- 14.) This is the coordinate conversion tool. You can enter coordinates in degrees, minutes and seconds (DMS) and receive an output in decimal degrees (DD), the required coordinate system for Well Completion Reports. You can also select the tag and then select any point on the map to find the coordinates in degrees, minutes and seconds and decimal degrees at that point.
- 15.) The screening tool allows the user to query and retrieve Well Completion Report data based on either a.) an address or place name b.) a point of interest, shape or selection (see 1 and 2 below) or c.) coordinates. Once you have your input, you can select the number of miles, feet or kilometers around your input that you want to retrieve data from. Click "Report". A circle will draw around your input.



The screenshot shows the 'Screening' tool interface. At the top, there is a search bar labeled 'AOI' with a magnifying glass icon. Below it are three input fields: 'Place name', 'Draw', and 'Coordinates'. The 'Draw' field is highlighted with a red oval and labeled '1'. Underneath is the 'Select draw mode' section with several icons: a location pin, a line, a square, a circle, a polygon, and a selection tool icon. The selection tool icon is circled in red and labeled '2'. Below this is the 'Buffer distance (optional)' section with a text input field containing '0' and a dropdown menu set to 'Miles'. At the bottom are two buttons: 'Report' and 'Start Over'.

From there, a second window will open that will summarize the selected well locations. Clicking the download button (downward facing arrow) will export the selected well locations to a CSV file. Clicking the printer button will export the selected well locations to a PDF report which can be titled and annotated by the user.



Attribute Table

By selecting the arrow on the bottom center of the screen, you can pull up the attribute table. The attribute table lists all the Well Completion Reports (WCRs) and their attributes in a table. The table will only populate with WCRs that you can see in your current view (AOI). Changing your view/AOI will automatically change what is populated in the attribute table. Selecting WCRs in the map will highlight rows in the attribute table in bright blue. By selecting the options button, you can add a filter on your current view of the data, export all the features in the table into a .CSV file, or adjust the columns you see. By selecting the filter tab, you can then press the “add expression” button to add a condition to see only a slice of the data. For example, if you wanted to see only wells that contained bedrock stratigraphic information, you would select the field “Bedrock Data” from the dropdown menu, set the center condition menu to “is” and then type “yes”. Click the **X** on the right-hand end of the expression line to delete your expression and return the map to its default view.

Other examples of attribute table filters:

- Select the field “Town” and the expression “is” to see only wells in a specific town.
- Select the field “Well Type” and the expression “is” to see only wells of a certain type.
- Select the field “Well Screened” and the expression “is” and then type “yes” to see only wells which are screened

Expressions can be added together to create more complicated filters. By selecting and dragging the top edge of the attribute table, you can control how much of your view the table takes up.

Links and Other Resources:

- MA Well Driller Website: <https://www.mass.gov/well-driller-program>

- List of MA Certified Well Drillers: <https://www.mass.gov/service-details/find-a-certified-well-driller>
- Well Driller Database at EEA Online Data Portal:
<https://eeaonline.eea.state.ma.us/Portal/#!/search/welldrilling>