# Part 1- Create a basic map
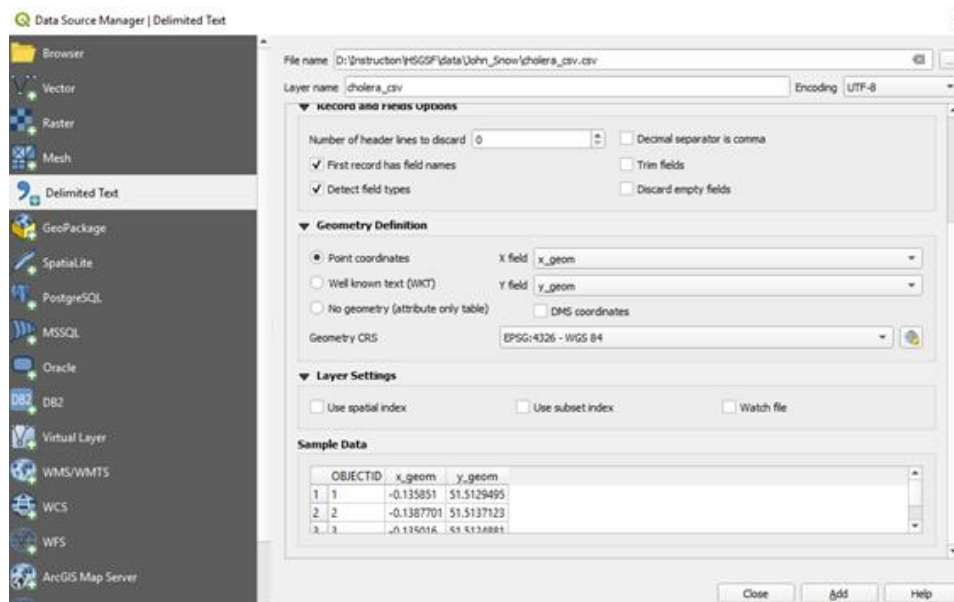
Download provided data

- Create a folder for the workshop, in an accessible location.
- Go to https://bit.ly/30MXxfQ and download and extract (**right-click > Extract All…**) the .zip file (John_Snow_Oct_2019.zip) into the above folder.
- Repeat for the *OSM.zip* file (https://bit.ly/31MGP1q).

Import data

- Using the **Add Vector Layer** tool, add the *pumps.shp* data from your workshop folder.
- Repeat for the *OSM_roads.shp* and *OSM_buildings.shp* layers.
- Rearrange layers (by dragging them in the layers panel) so that points are on the top, followed by lines, then polygons.
- **Save** your project in the same folder as your data: **Project > Save As…**

- To add the table of data containing cholera cases, use the **Add Delimited Text Layer** tool .
- Navigate to the folder your data is stored in and select the *cholera_csv.csv* file.
- Double-check the x and y fields are pointing to the *x_geom* and *y_geom* columns of your table, as shown below.
- Click **Add**, then **Close**.

- Explore the attribute tables of these layers to get a better understanding of the information they contain.

Style layers

- Style the layers by navigating to the **Symbology** tab of the Properties dialog box (double click the layer or right click and select **Properties**).
- Choose the point or line symbols of your choice and an appropriate colour for the features on your map.
- **Save** often!

Label features

- Select the pumps layer and click on the **Layer Labeling Options** button .
- In the top dropdown menu, change "No Labels" to **"Single Labels"**.
- In the **Label with** dropdown menu, select the **name** field.
- Click **Apply**.
- Use the Text and Formatting tabs in the Layer labeling window to style and position your labels.

Compose your map

- Zoom the main data frame to the approximate desired extents for your map.
- Click on the **New Print Layout** button to open the print layout window.
- Give your map a **name** when the dialog box comes up.
- Click **Add new map** and then draw a box to specify your map's extent on the page.
- At this point, the content in the map view should appear in your layout window.
- Use the **Move Item Content** button to change the extent and zoom.

Annotate the map

- Use **Add New Labels** tool to add a title with your name and the date (use **Item Properties** tab to control font size, colour, background).
- Use **Add picture tool** to add a **North arrow**.
- In the Item Properties window expand **Search Directories** to select an appropriate symbol.
- Use the **Add new legend** button to insert a legend.
- With the legend selected, click the **Item Properties** tab, rearrange the legend items, and rename the layers by double-clicking on the text.
- Use the **Add New Scalebar** tool to insert a scale bar.
- Drag the bar to the desired location and size.
- Set units to **Meters**, and label to "**m**".
- Select desired number of segments.
- Change the bar height and font size.

Export the map

- Use **Export as image** or **Export as PDF** to export the map to the desired directory.
- **Save** your layout.
- **Open** the new map to see the final product.

Topics / skills covered:

- Adding data in different formats to the map (shapefiles and comma-separated values (.csv) files).
- The QGIS interface.
- How to style layers (symbology).
- Labeling features on the map.
- Map layouts for printing or including in reports or presentations.