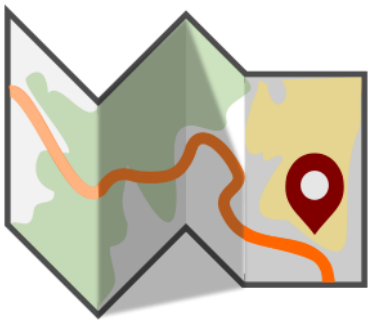
Importing Spreadsheets or CSV files

QGIS Tutorials and Tips



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Importing Spreadsheets or CSV files

Many times the GIS data comes in a table or an Excel spreadsheet. Also, if you have a list lat/long coordinates, you can easily import this data in your GIS project.

Overview of the task

We will be importing a text file of earthquake data to QGIS.

Get the data

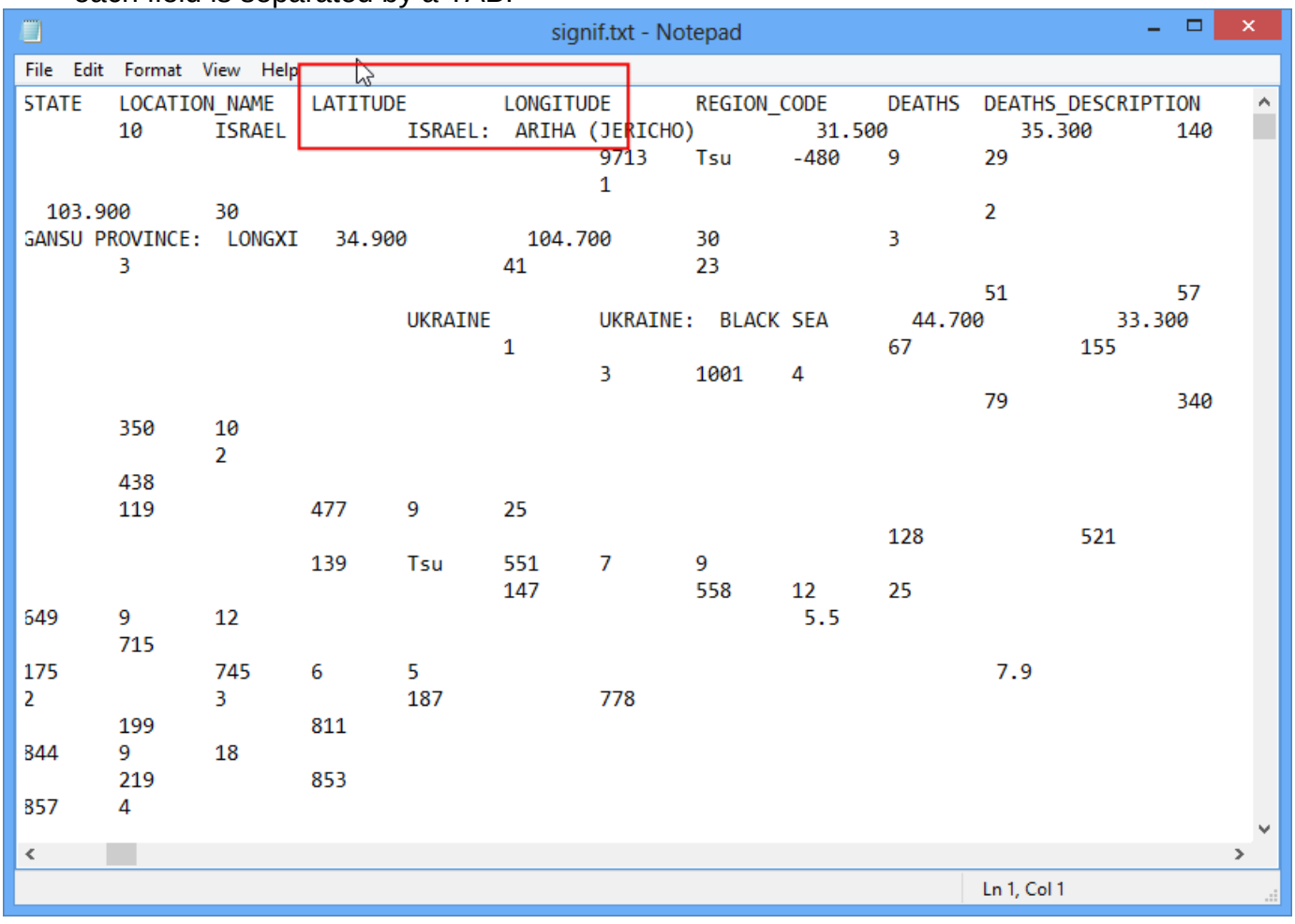
NOAA's National Geophysical Data Center produces a great dataset of all significant earthquakes since 2150 BC. Learn more.

Download Significant Earthquake Database text file.

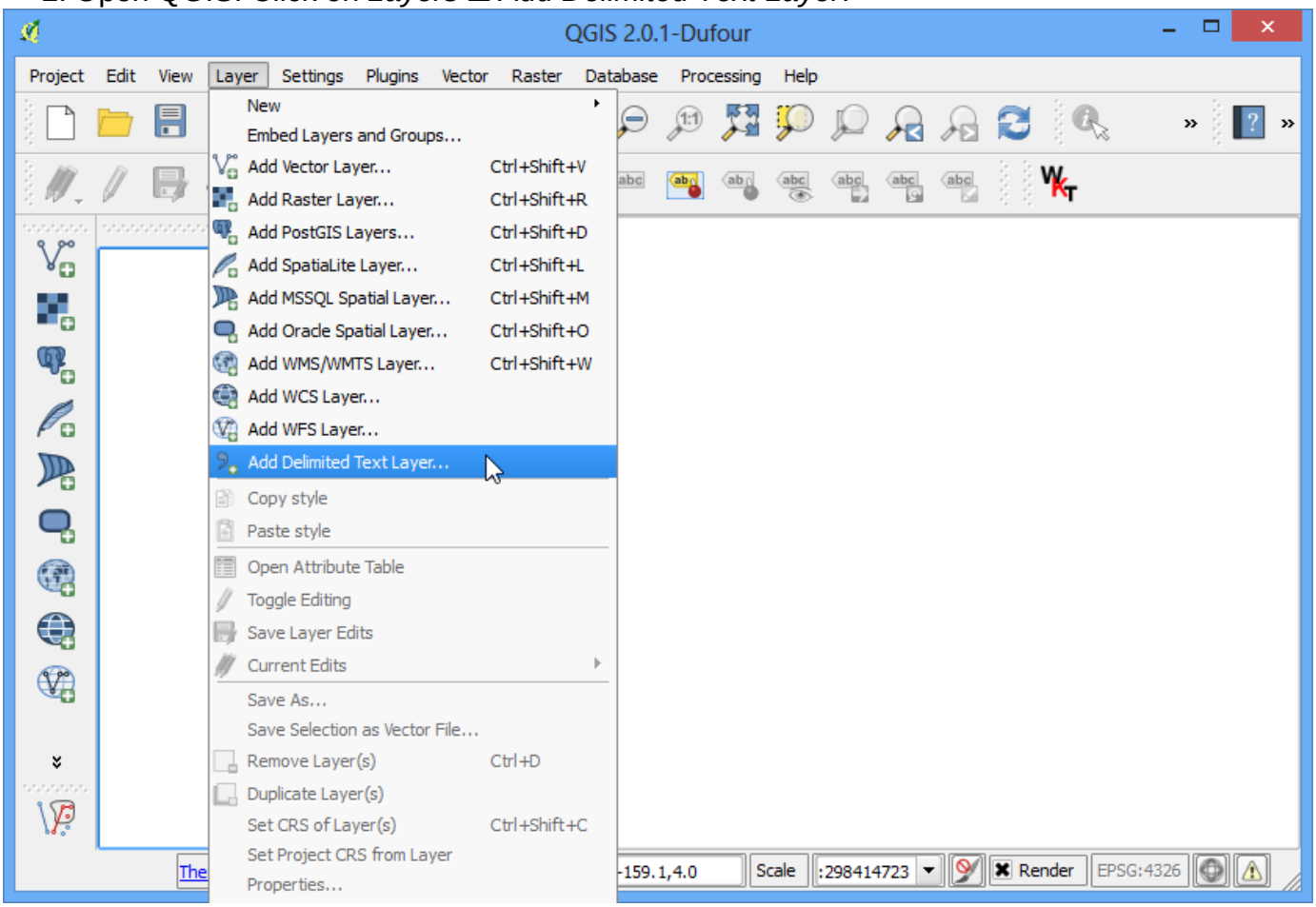
Data Source [NGDC]

Procedure

1. Examine your tabular data source. To import this data to QGIS, you will have to save it as a text file and need at least 2 columns which contain the X and Y coordinates. If you have a spreadsheet, use *Save As* function in your program to save it as a *Tab Delimited File* or a *Comma Separated Values (CSV)* file. Once you have the data exported this way, you can open it in a text editor such as Notepad to view the contents. In case of the Significant Earthquake Database, the data already comes as a text file which contains latitude and longitude of the earthquake centers along with other related attributes. You will see that each field is separated by a TAB.



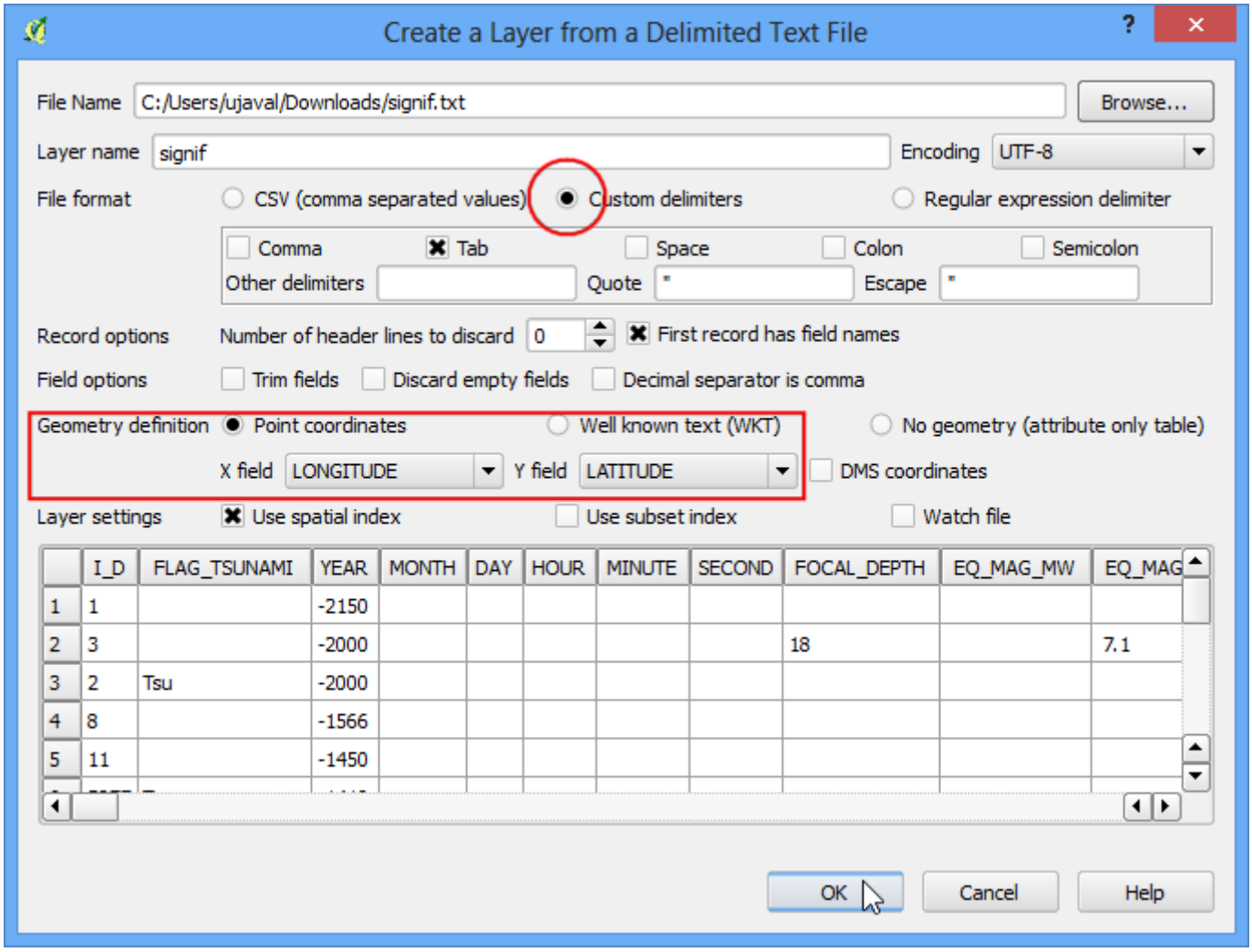
2. Open QGIS. Click on *Layers* ■ *Add Delimited Text Layer*.



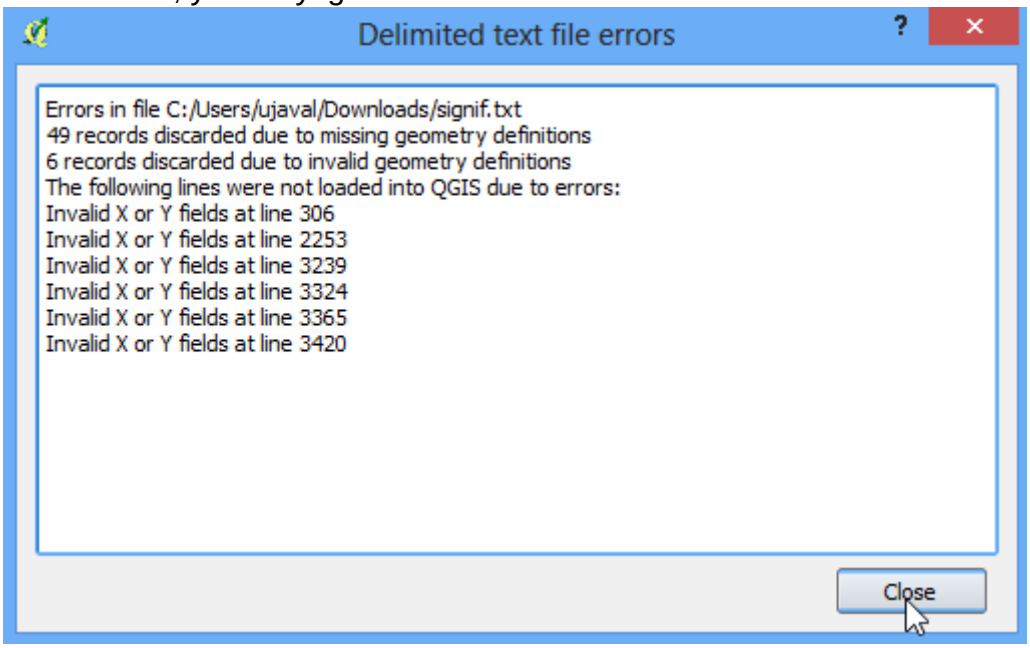
3. In the *Create a Layer from a Delimited Text File* dialog, click on *Browse* and specify the path to the text file you downloaded. In the *File format* section, select *Custom delimiters* and check *Tab*. The *Geometry definition* secction will be auto-populated if it finds a suitable X and Y coordinate fields. In our case they are *LONGITUDE* and *LATITUDE*. You may change it if the import selects the wrong fields. Click *OK*.

Note

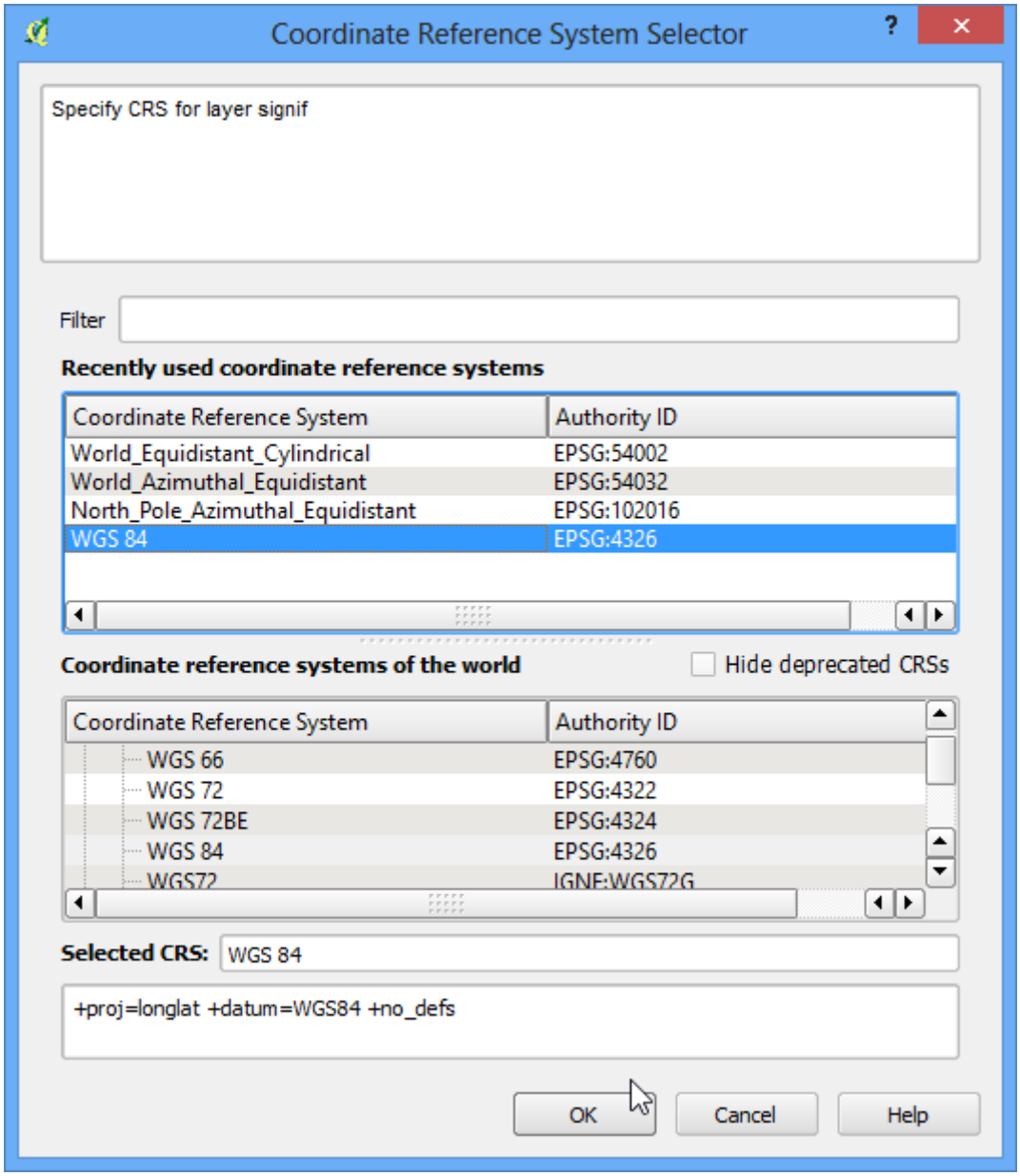
It is easy to confuse X and Y coordinates. Latitude specifies the north-south position of a point and hence it is a **Y** coordinate. Similarly Longitude specifies the east-west position of a point and it is a **X** coordinate.



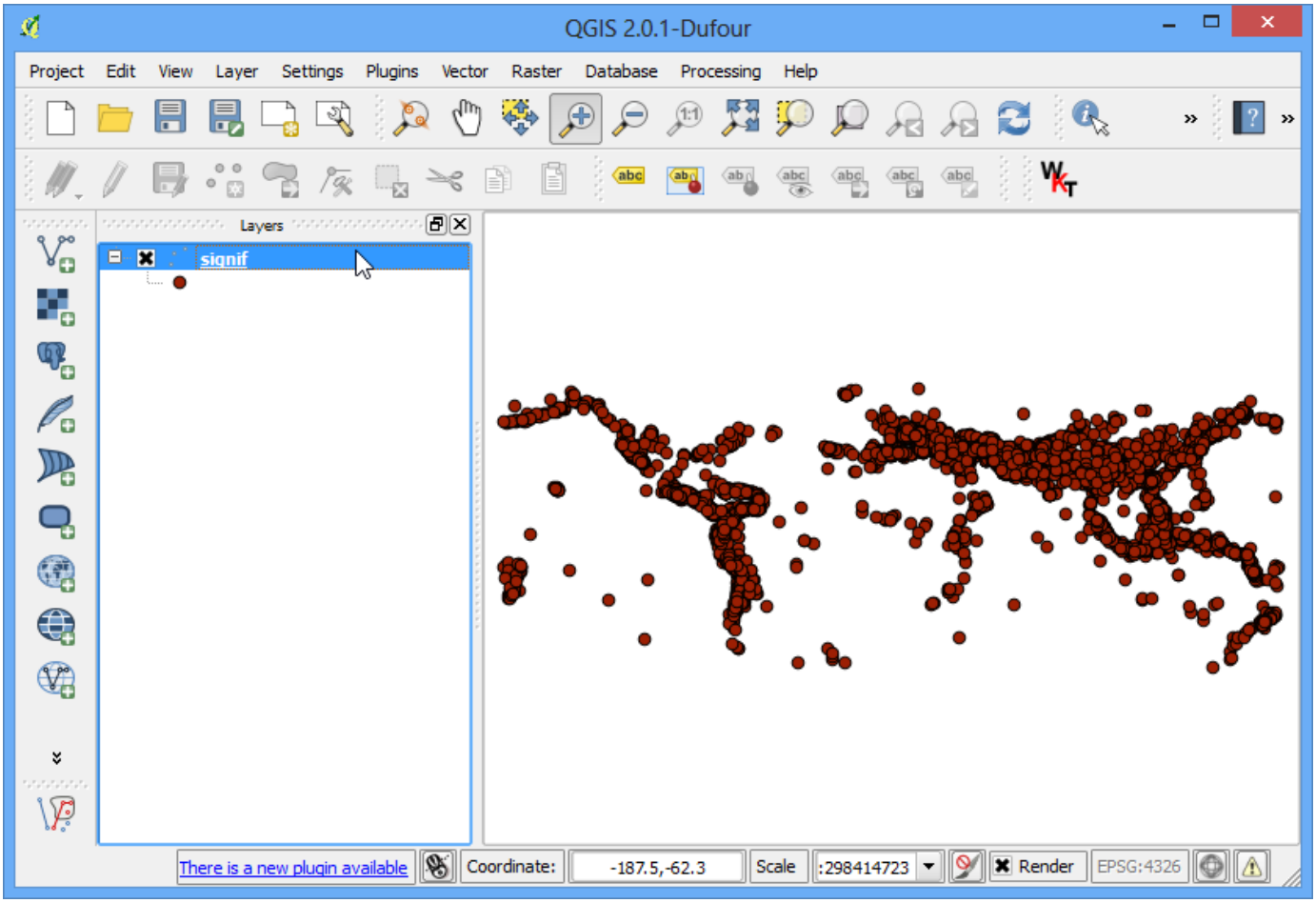
4. You may see some errors displayed in the next dialog. The erros in this file are mainly due to missing X or Y fields. You may examine these errors and fix the problems in your source file. For this tutorial, you may ignore these errors.



5. Next, a *Coordinate Reference System Selector* will ask you to select a coordinate reference system. Since the earthquake coordinates are in latitudes and longitudes, you should select *WGS 84*. Click *OK*.



6. You will now see that the data will be imported and displayed in the QGIS canvas.


QGIS 2.0.1-Dufour
Project
Edit
View
Layer
Settings
Plugins
Vector
Raster
Database
Processing
Help
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There is a new plugin available
Coordinate:
-187.5,-62.3
Scale
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Render
EPSG:4326