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A step-by-step guide to acquiring the GPS coordinates of all mines and Renewable Energy EIA applications in South Africa

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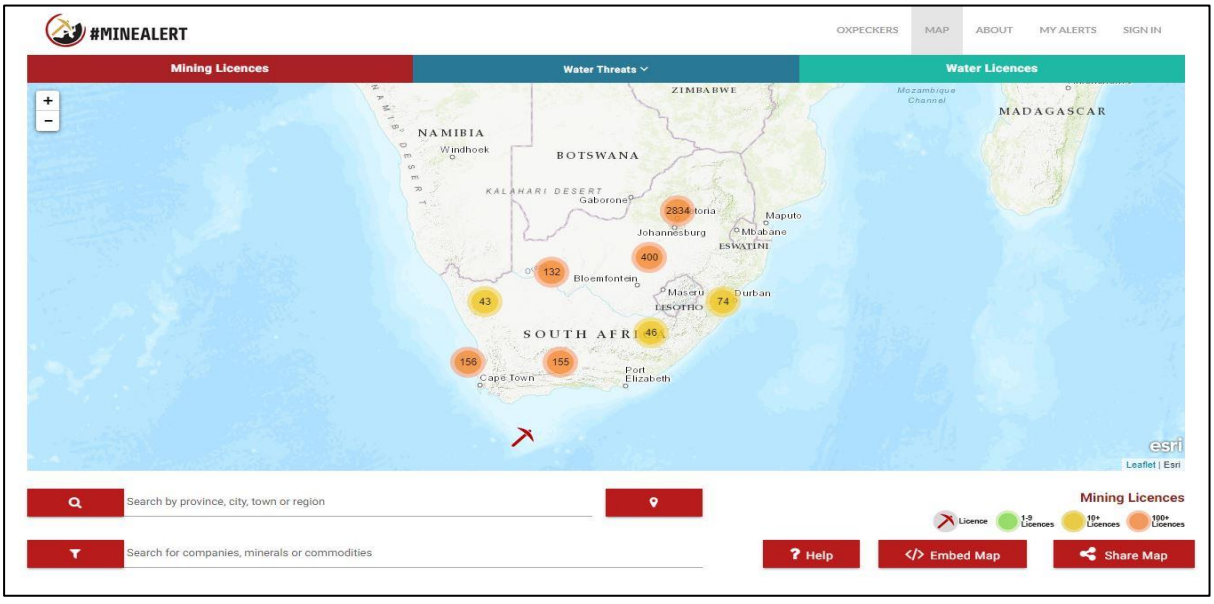
Background: South Africa is rich in mineral resources and, for better or worse, the mining industry has been integral to the country's economy ever since the first mine became operational in 1852. Due to the ever-expanding area needed to satisfy increased demand, and the destructive nature of many types of mining techniques, the mining industry has often been the bane of conservationists. In recent decades, with the acknowledgment of the need to shift away from fossil fuels and improvement in technologies, there has been a surge in applications for the construction of renewable energy facilities. Although this shift to renewable energy is desirable, these developments can negatively impact the environment too and it is important to keep a handle on where they are located. This document lays out the steps needed to download to coordinates and names of all current mines operating in South Africa, as well as description on how to obtain a shapefile mapping all Renewable Energy EIA applications in the county. This can be useful resource when assessing, for example, the cumulative impact of development in an area.

It is important to note however that the mine data only contains the location of each mine, not the extent. This information will have to be sourced from alternate repositories such as the initial EIA applications and Environmental Management plans.

Methods: *Mine Data*

- Copy-and-paste https://mine-alert.oxpeckers.org/#/map into your browser and press "Enter" (alternatively hold "Control" and click the link above). You will be taken to the Oxpeckers #minealert website

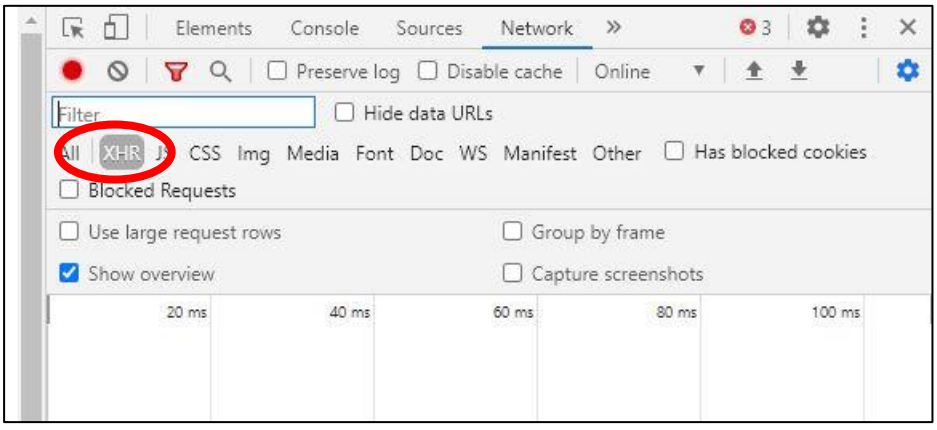


- Right-Click anywhere on the map and click “Inspect” on the box that pops up

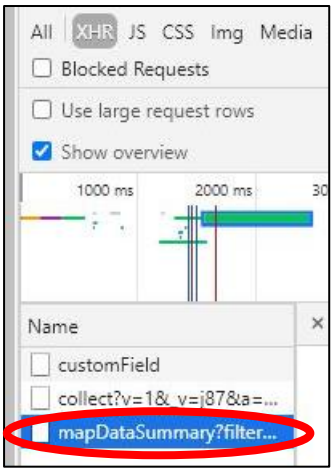
- On the tab that opens on the right-hand side of your screen click “Network”



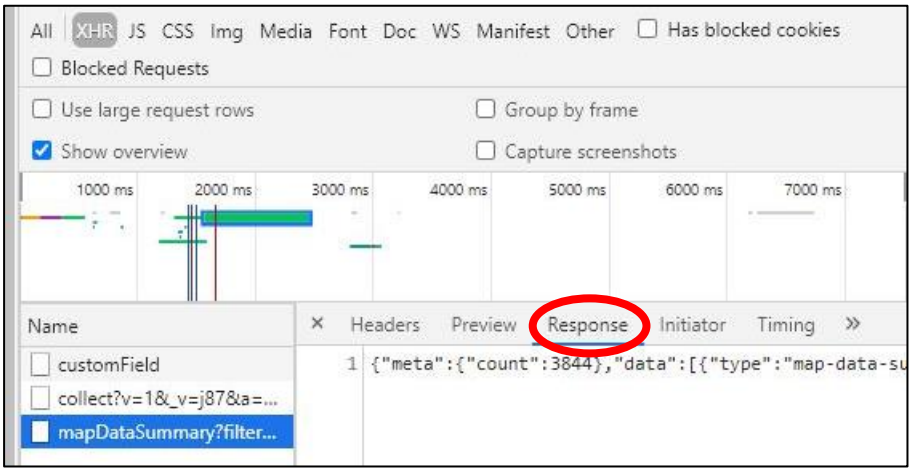
- On the tab below where you selected “Network” click on “XHR”



- Press “CTR + R”, or click the refresh logo on the top left of screen.

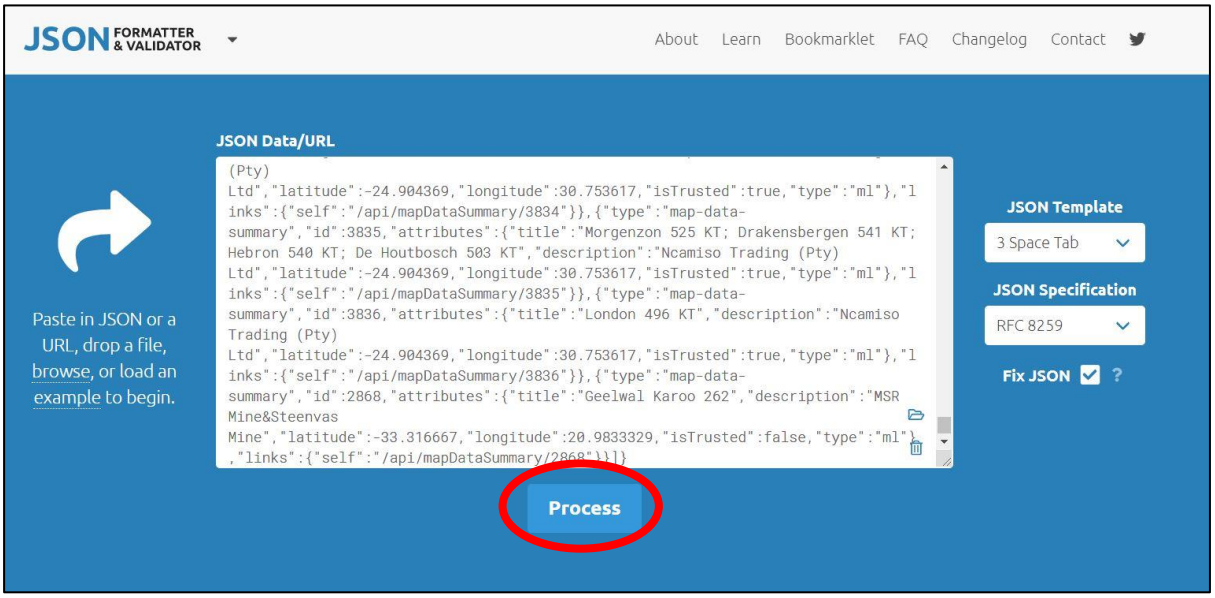
- A list appears below. Click on “mapDataSummary…”
- 

- A window appears on the right of the aforementioned list (you may need to hover over the left-hand frame of new window and drag to the left of screen to enlarge window)
- In this new window, click on “Response” – a line should appear in the window below with text ({“meta”:{“count”…”)

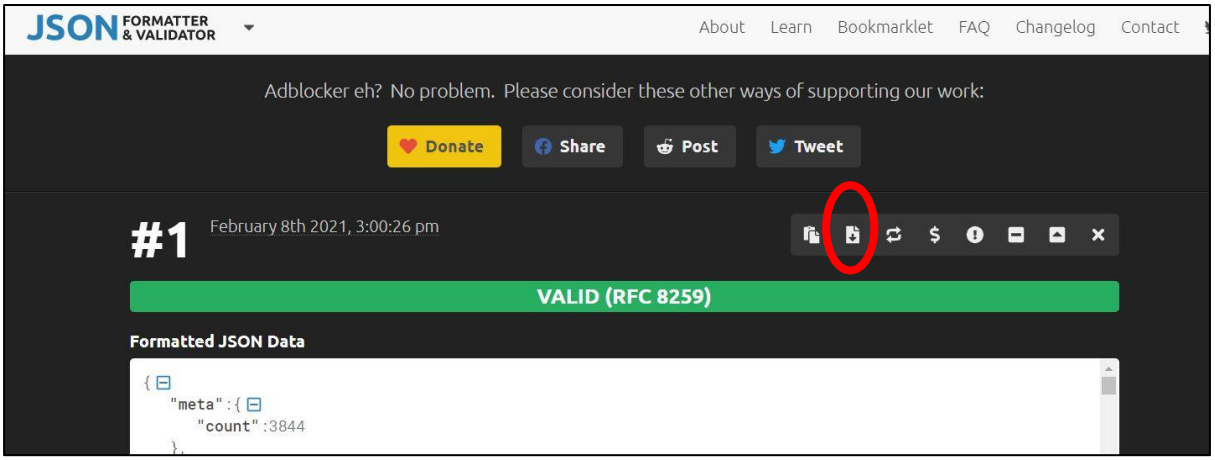


- Click anywhere on this text and press “CTRL” “A” to select all, then right-click and “Copy”
- In a new browser tab, type https://jsonformatter.curiousconcept.com/# and press “Enter”
- Right-click in the white block and “Paste”

- Click on “PROCESS” below white block

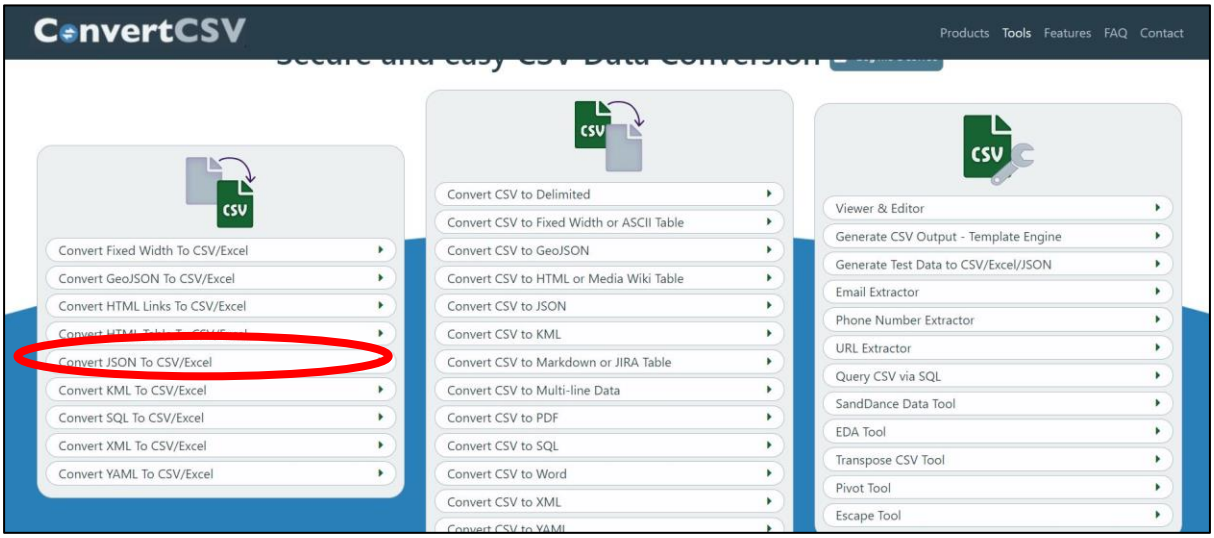


- Above the white block on the right there are various symbols. Second to the left is an option to “Download”, click it

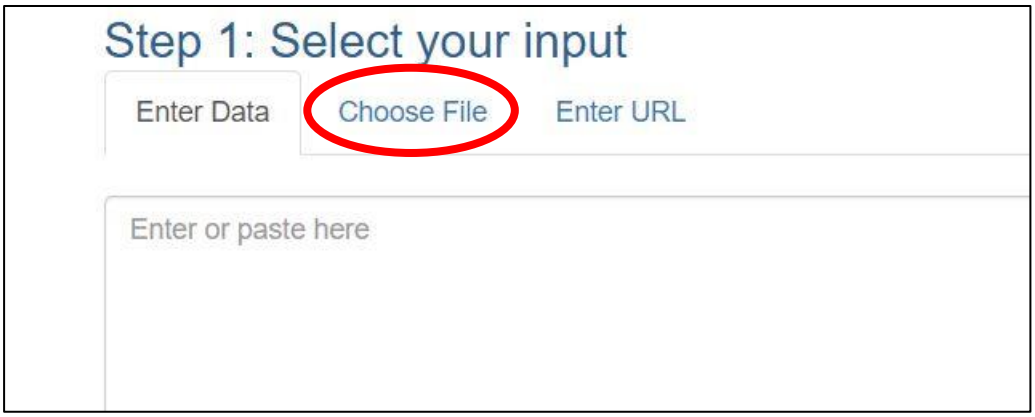


- In a new browser tab, type http://convertcsv.com and press “Enter”

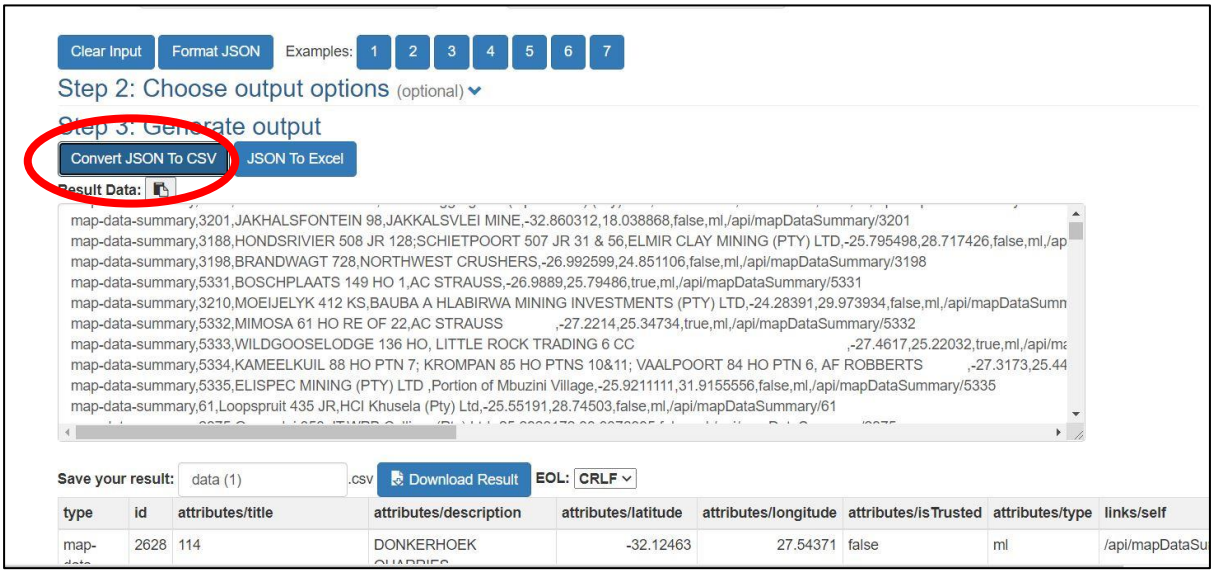
- Locate the “Convert JSON to CSV/Excel” option on the left of screen and click



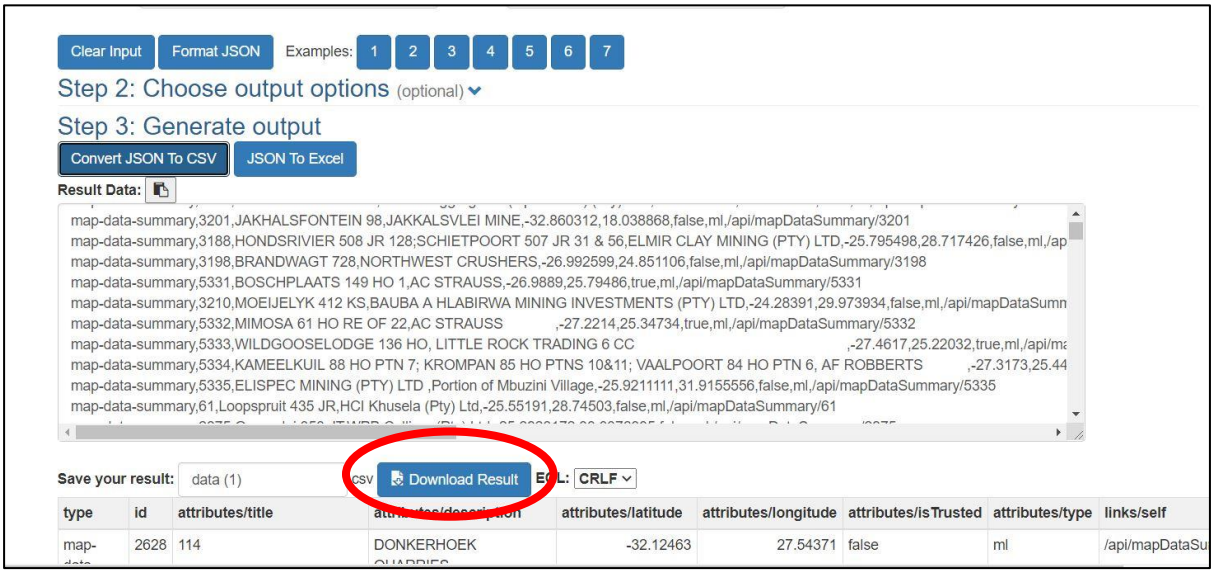
- On the tab under “Step 1: Select your input”, click on “choose file” and browse to “data.json” in your downloads folder



- Under “Step 3: Generate Output”, click “convert JSON to CSV



- At the bottom of the page, click “Download Result”

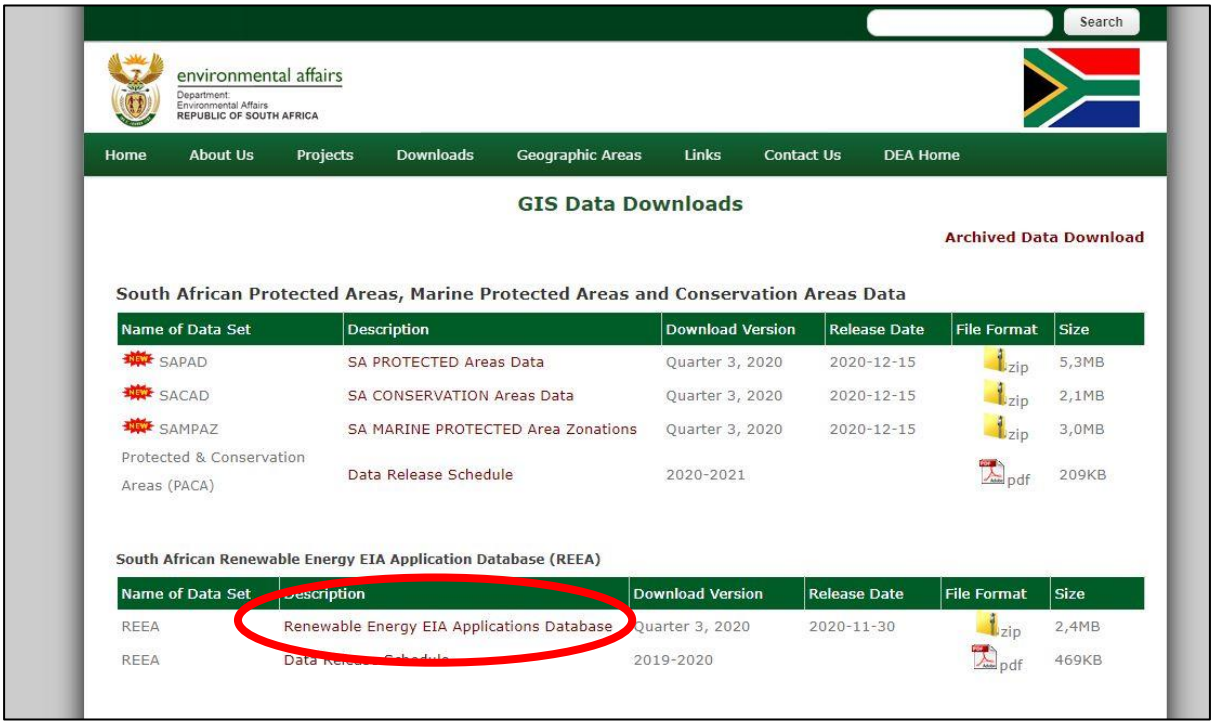


- This CSV file can now be used to map the location of some or all mines in South Africa. The process is straightforward but differs from program to program (e.g. Arc, QGIS, Google Earth). Should you need assistance in this matter please contact a member of the Conservation Science Unit.

Methods: *Renewable Energy*

- Copy-and-paste https://egis.environment.gov.za/data_egis/data_download/current into your browser and press "Enter" (alternatively hold "Control" and click the link above).

- Under "Description", click on the "Renewable Energy EIA Applications Database". This automatically downloads the data in a zipped document.



- Locate the folder in your downloads folder (it should be labelled "REEA_OR… .zip"), right click, and click on "extract files" or "unzip" (this depends on the programs installed on your computer.

- The unzipped folder contains the shapefile which can be opened in a GIS program and mapped.