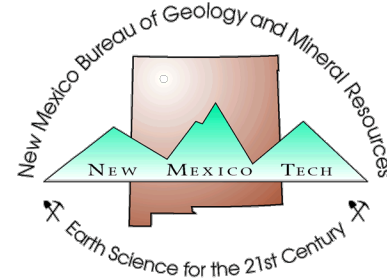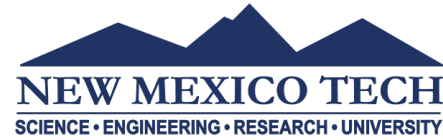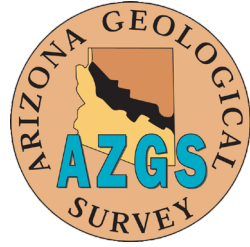# EGI Carbon Portal

With CUSP Data

September 11, 2024

CUSP Partners and Sponsors
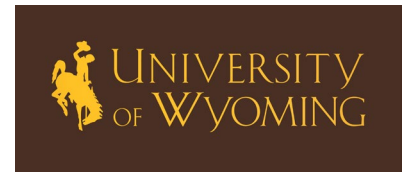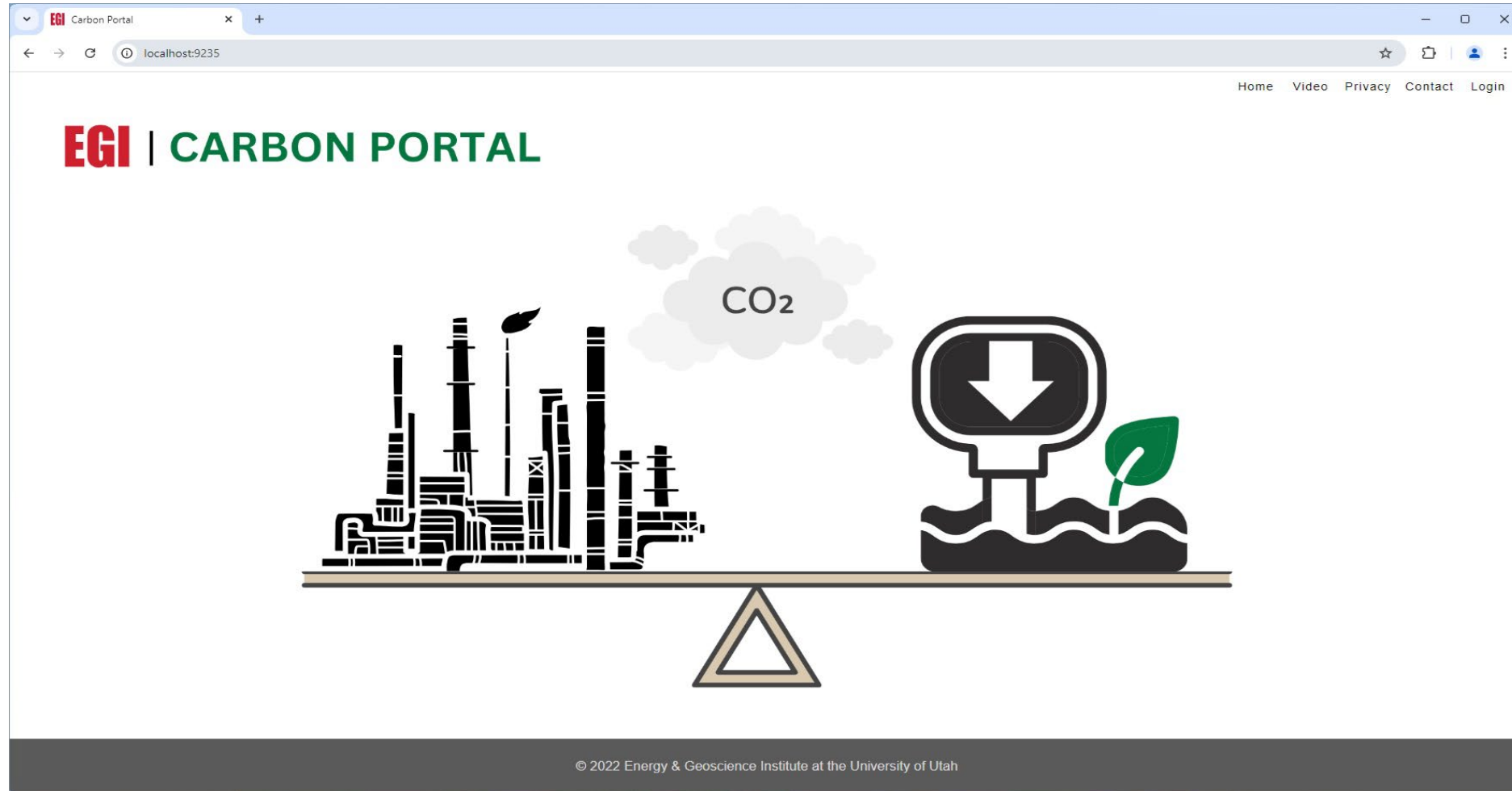
Carbon Portal - Architecture
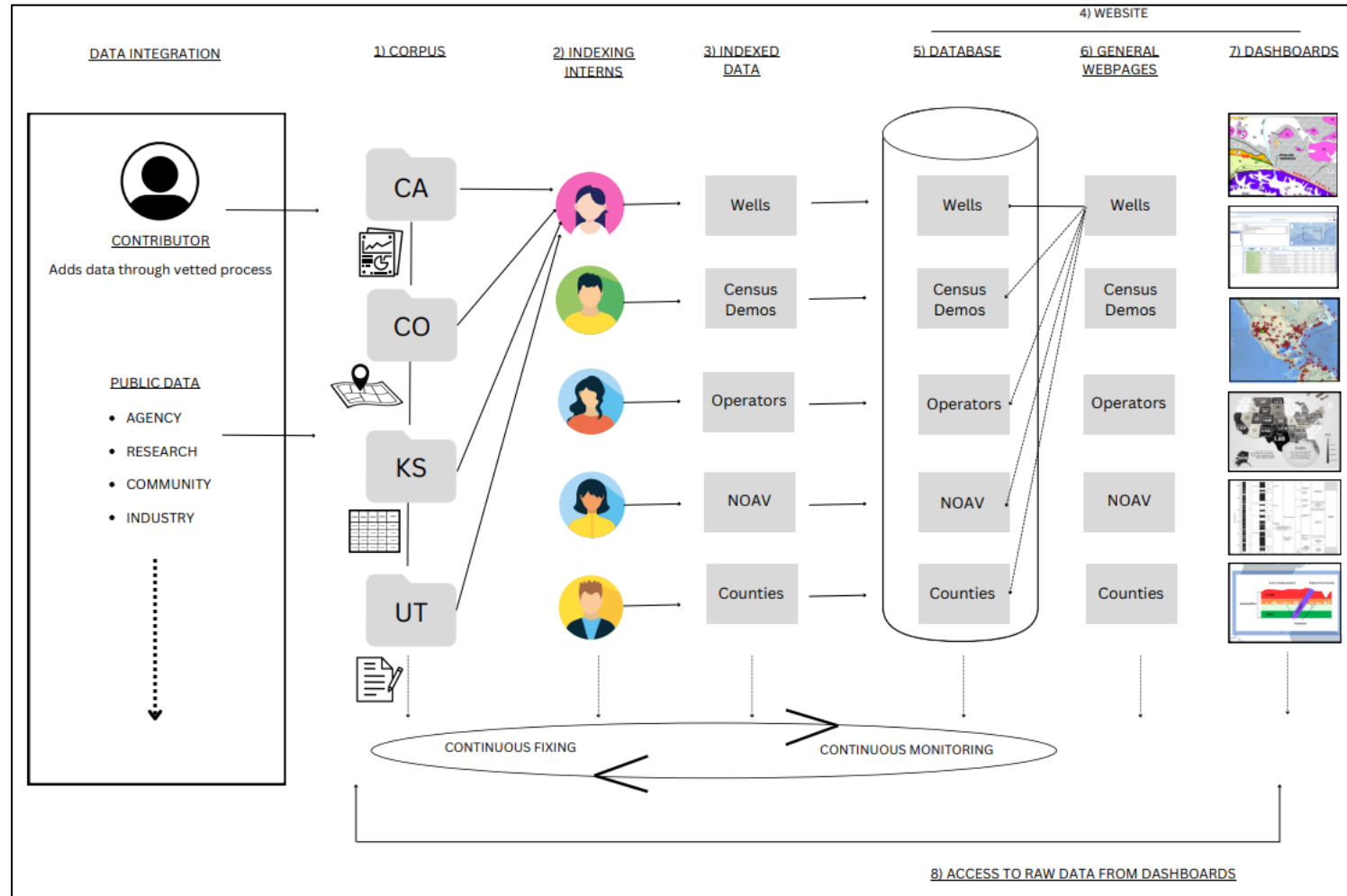
Carbon Portal -Website

Scenario 1

A stakeholder wishes to explore health risks in the communities of Tulare and Kern County, CA.

Database Access

Justice 40

J40 Data for Kern and Tulare

Launch MyMap

Send Data to MyMap

My Map

Data for Selected

Control Map Layer Visualization

Color by Cancer Rates

Add Slider on Cancer Rates

Isolate Highest Cancer Rates

Retrieve Facility Emission Data

Facility Emissions

Select Geographically

Send to MyMap

MyMap – J40 and Facility Emission Data
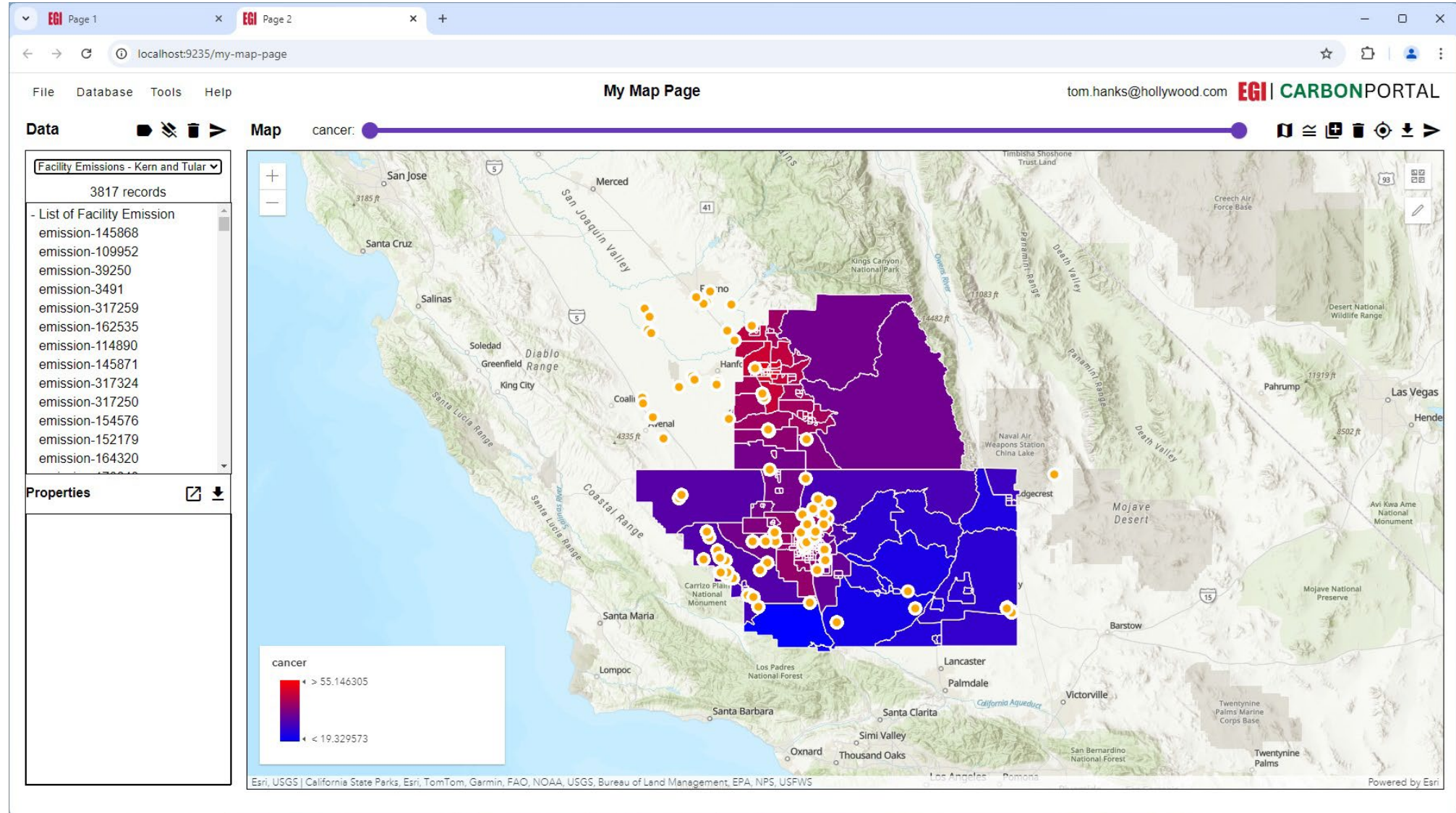
Show Facility Emissions by Size

CO₂ Non-Biogenic Emissions

Zoom In
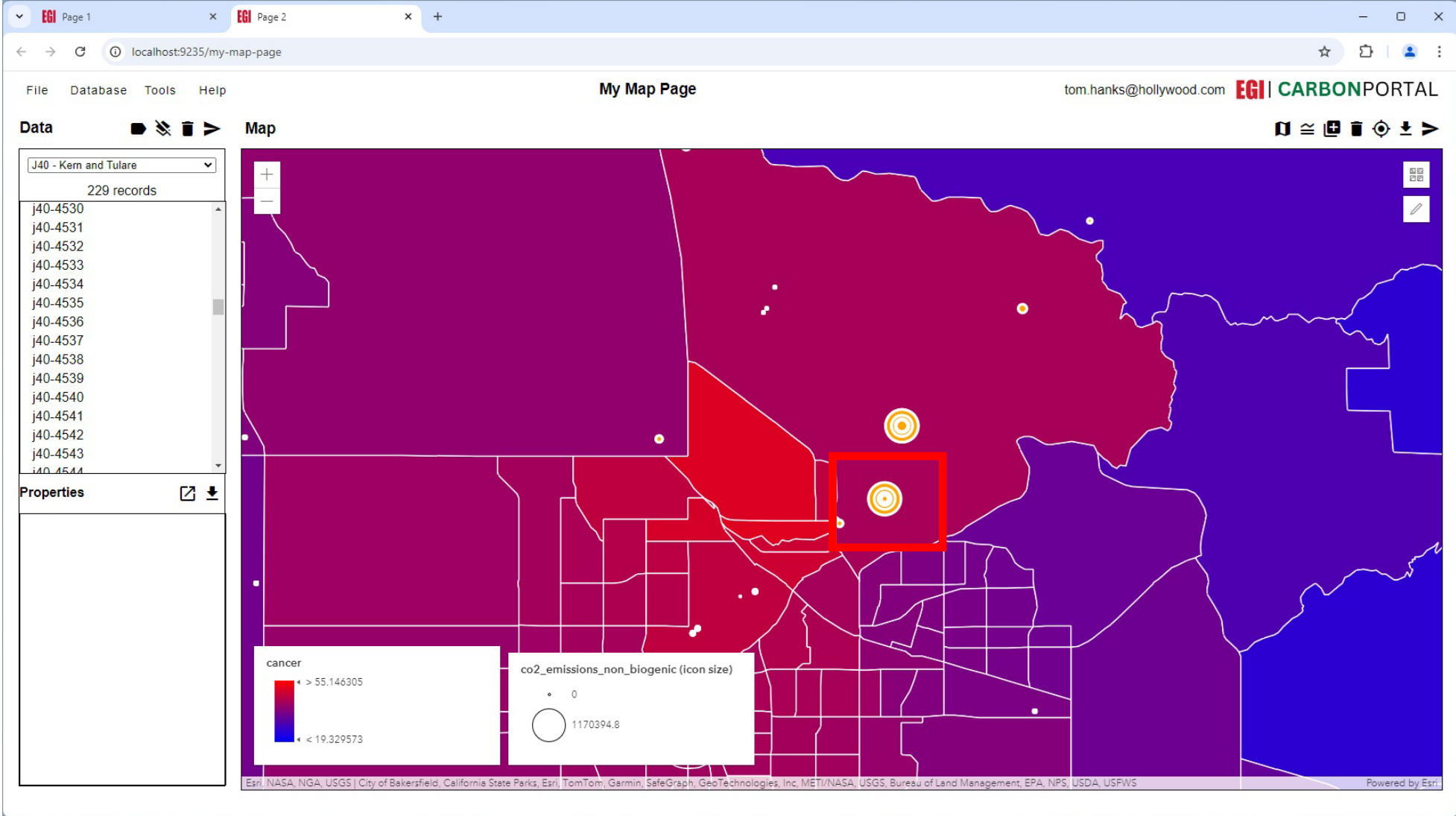
CO₂ Biogenic Emissions
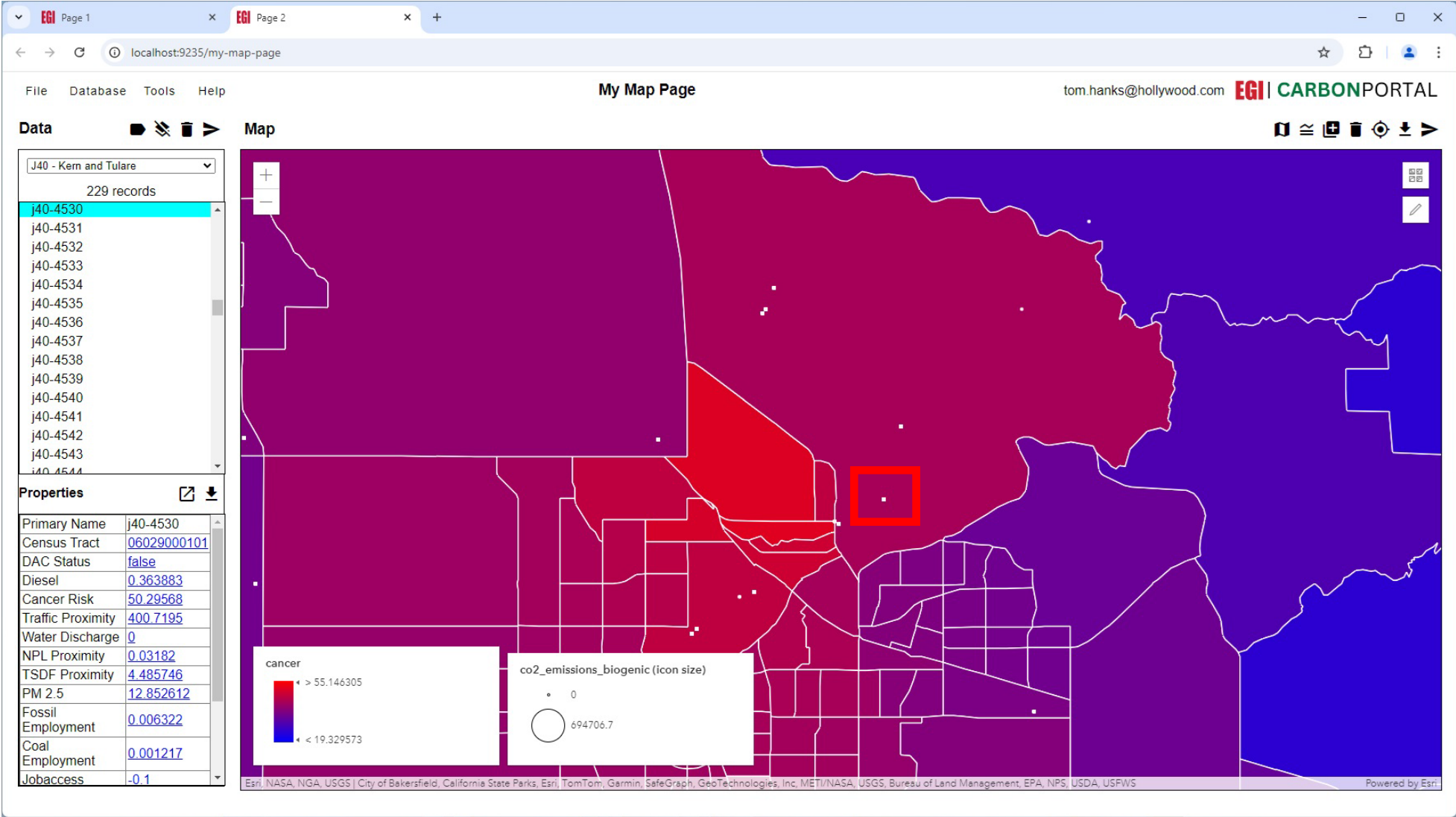
Methane Emissions
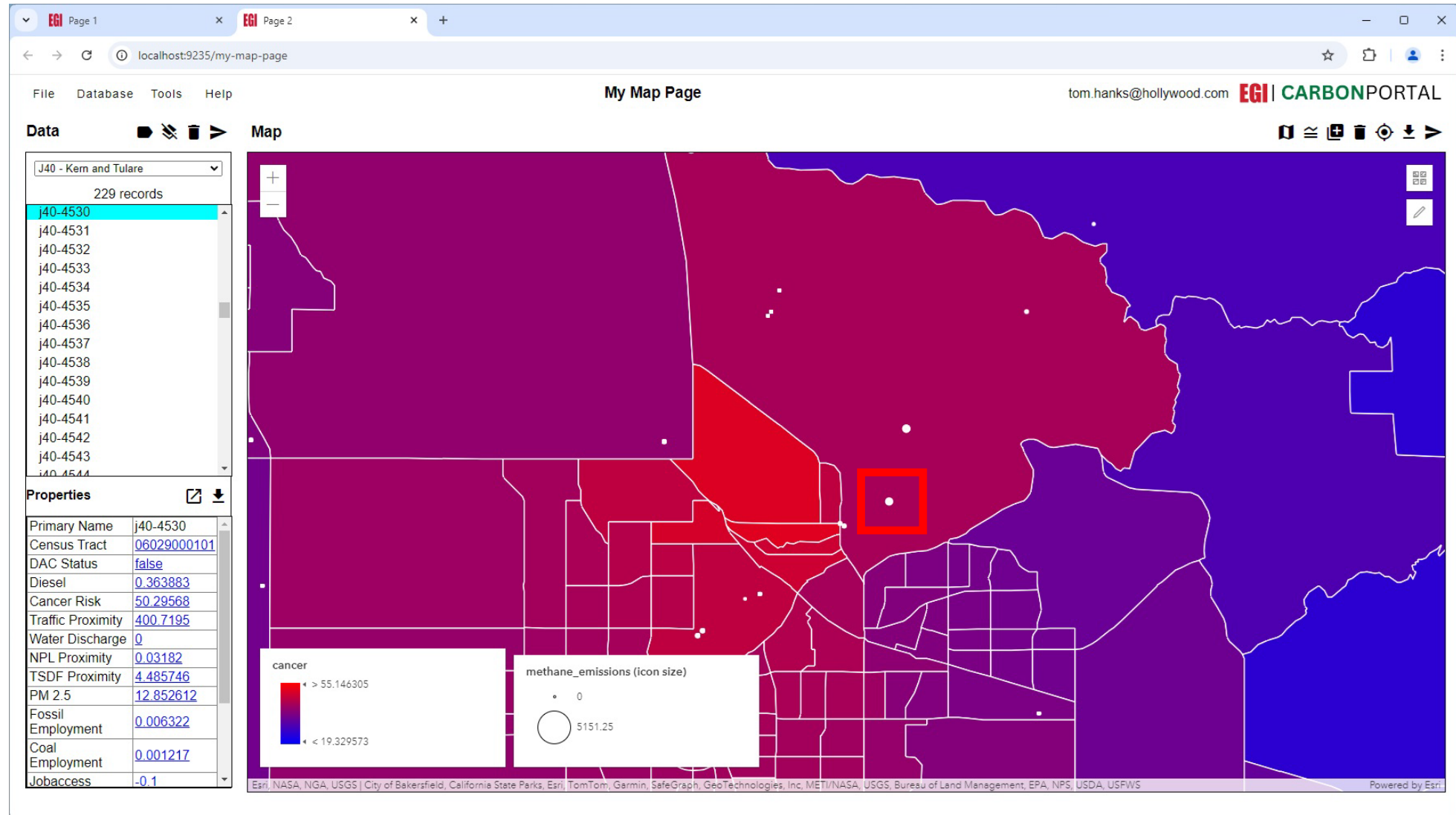
NOₓ Emissions
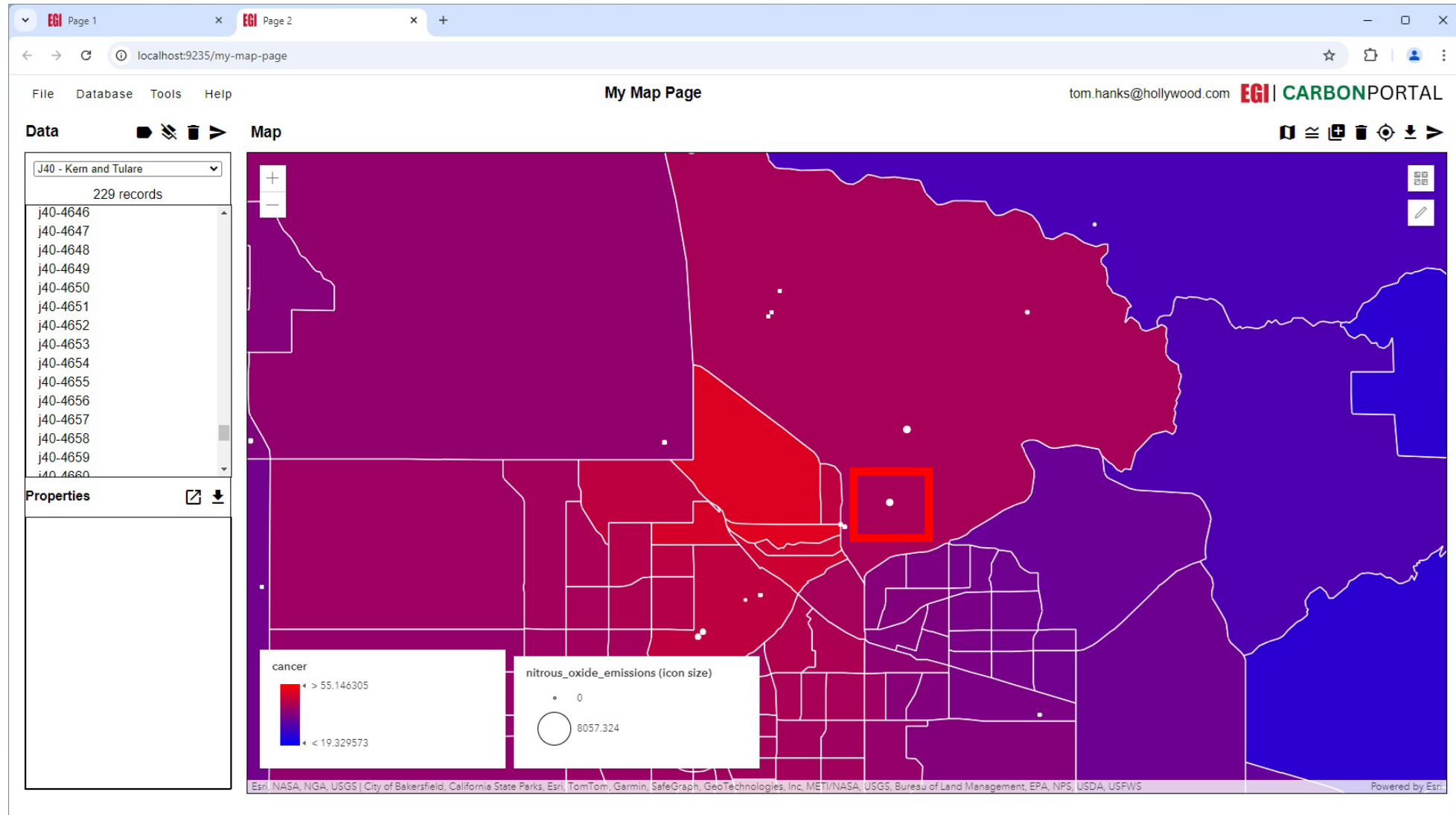
Show CO₂ Non-Biogenic Emissions by Year

CO₂ Non-Biogenic Emissions -2011

CO₂ Non-Biogenic Emissions -2015
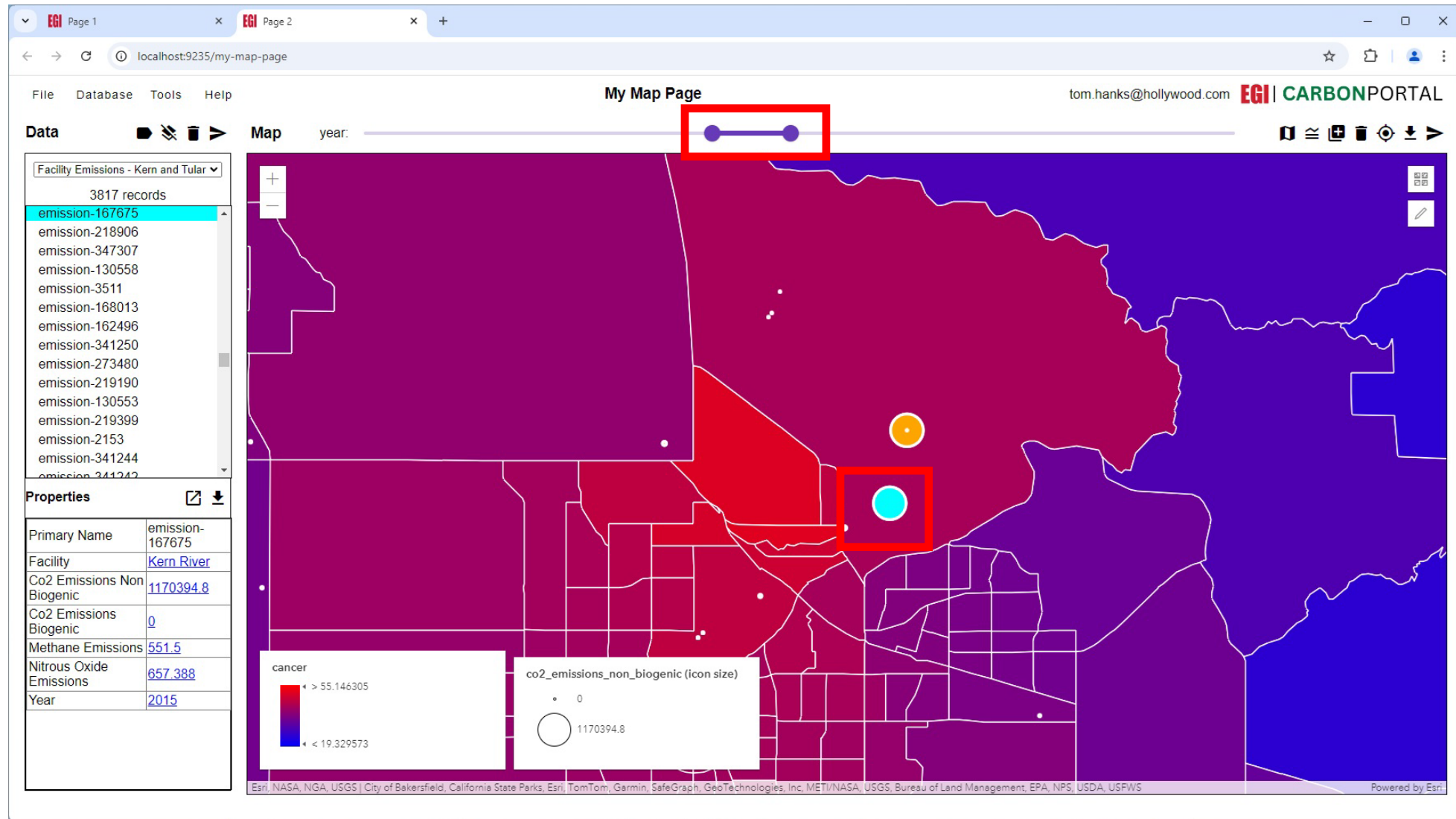
CO₂ Non-Biogenic Emissions -2020

Time series is a tool that potentially can be used for monitoring emission mitigation progress

Launch MySpreadsheet

Data to MySpreadsheet

MySpreadsheet

Sort by CO2 Emissions Non-Biogenic

Scenario 2

Stakeholder wishes to explore formations in the Bay Area for Carbon Sequestration.

Search Land Ownership

Land Ownership

Retrieve from Bay Area

Send to MyMap

MyMap with Land Ownership

Color by Land Ownership Designation

Search for Wells

Wells

Filter by Location

Filter by Number of Formations in Well

Order by Number of Formations

Click to see Formations in Well

Show Details of Formation

Send to MyMap

MyMap – Land Ownership and Wells
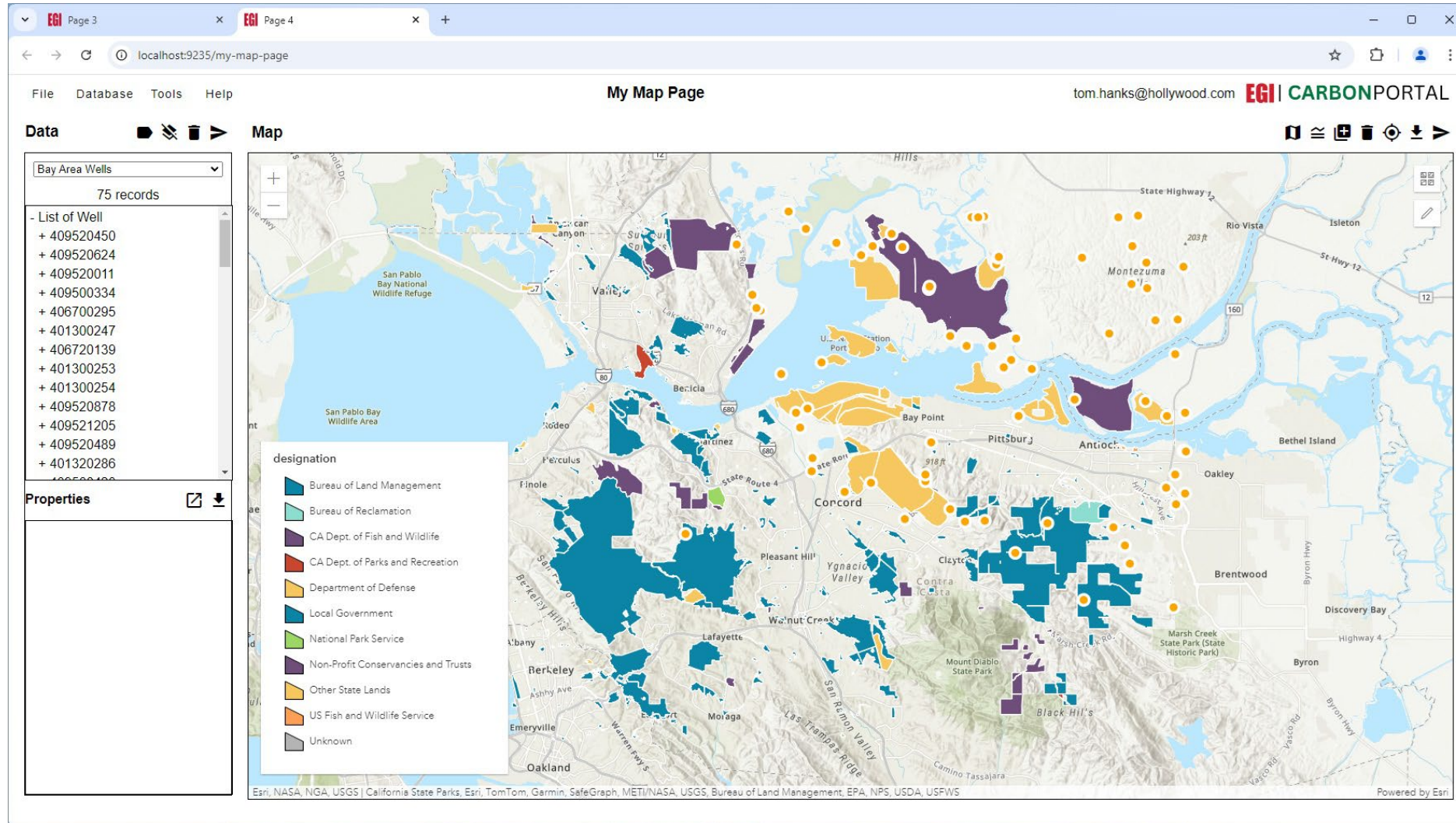
Color by Well Status

Select Area of Interest

Launch Well Formation Page and Send Data

Formation Layers created from Well Formations
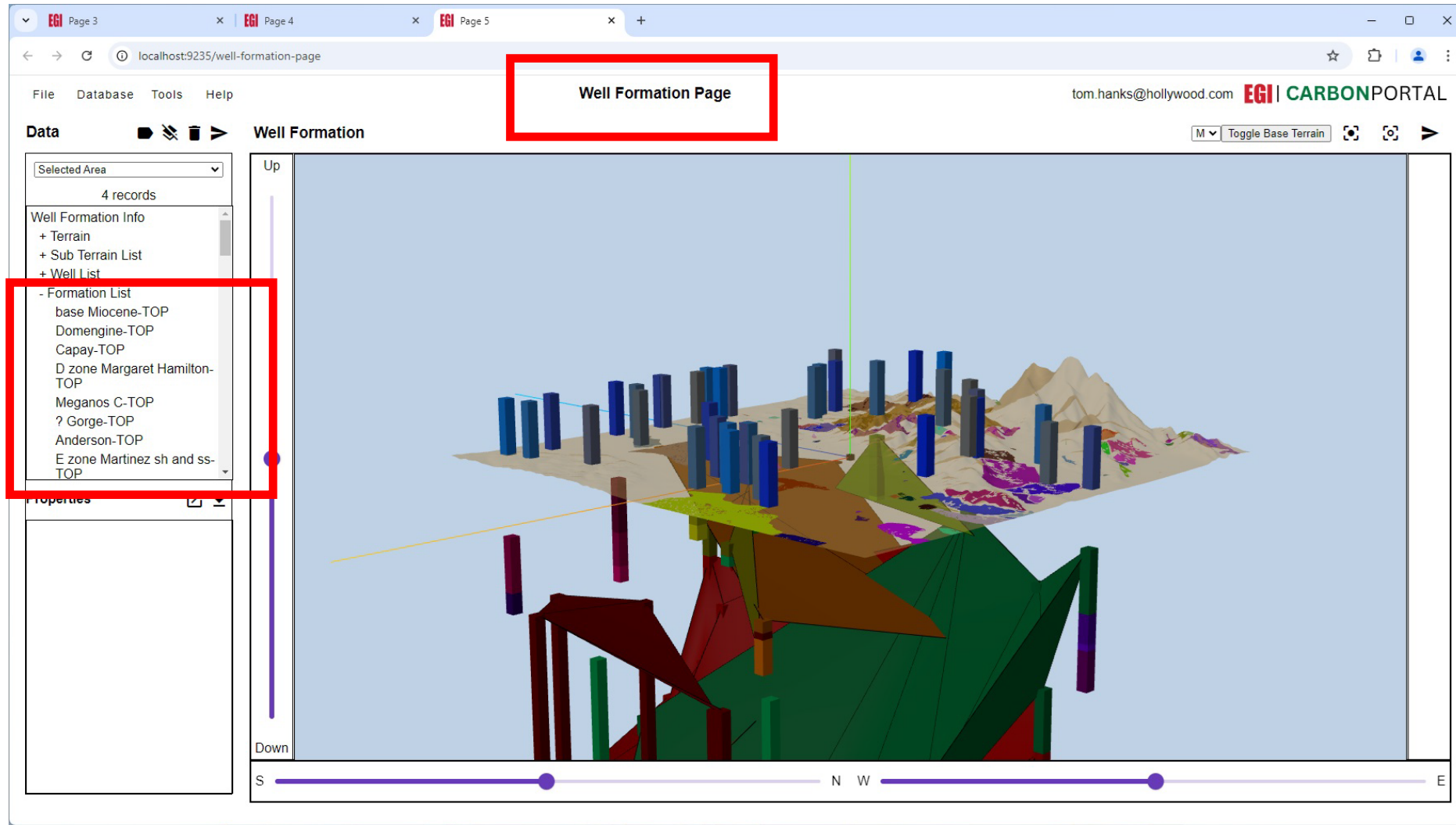
Select Well of Interest (401300275)

Focus on Well of Interest

Who Owns Land under Well of Interest?

What is First Formation under Well of Interest?

What other Formations (clipping plans)

Scenario 3

Stakeholder wishes to look for correlations between Cancer and other Factors.

Graph to find Correlations

Graph Page can be used to compare datasets such as PM 2.5 and Cancer throughout the US.
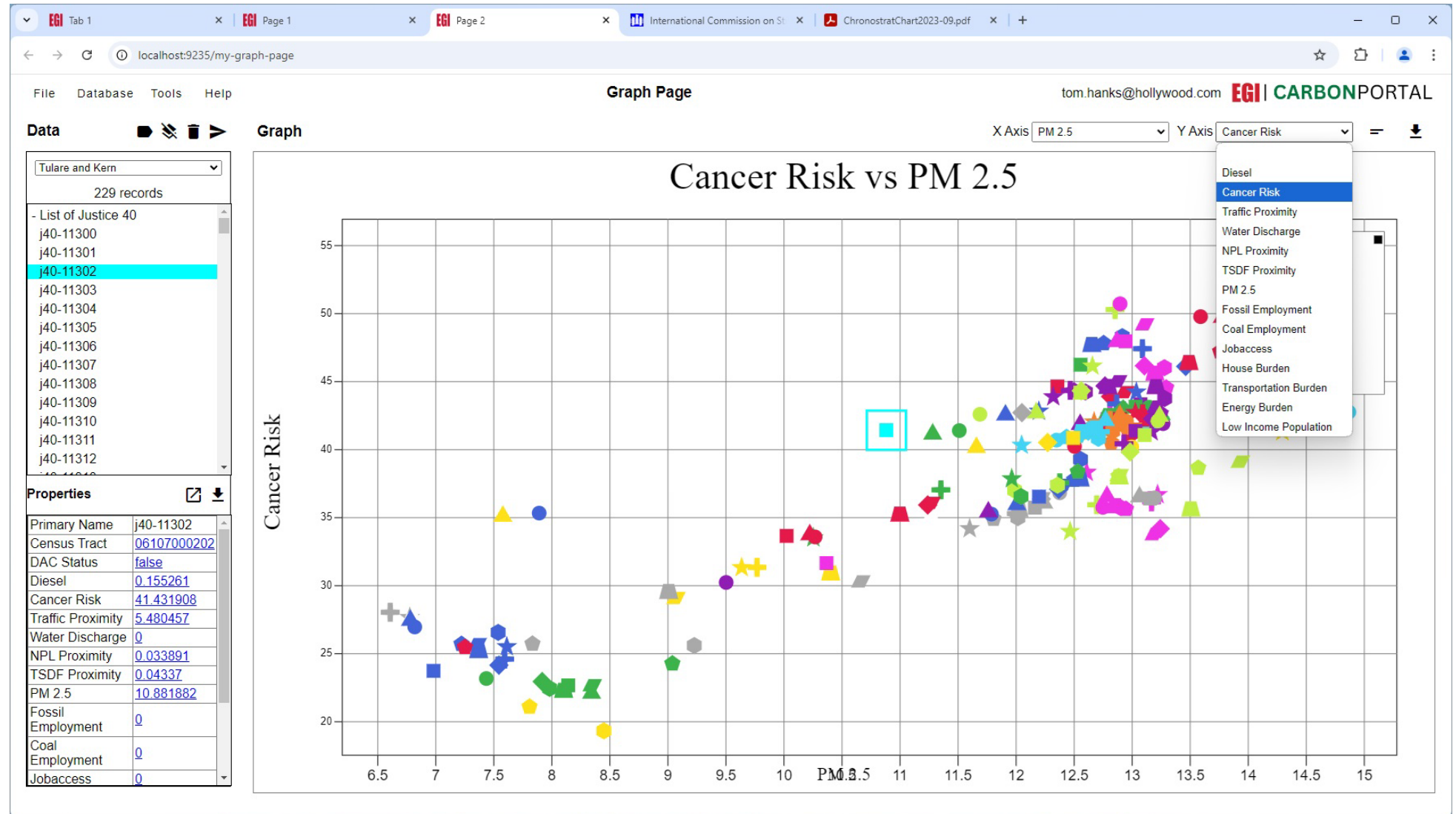
Scenario 4

Stakeholder is a geoscientist who wishes to contribute to Carbon Portal.

Data Contributing and Processing

Carbon Portal stores all original files and documents for indexing
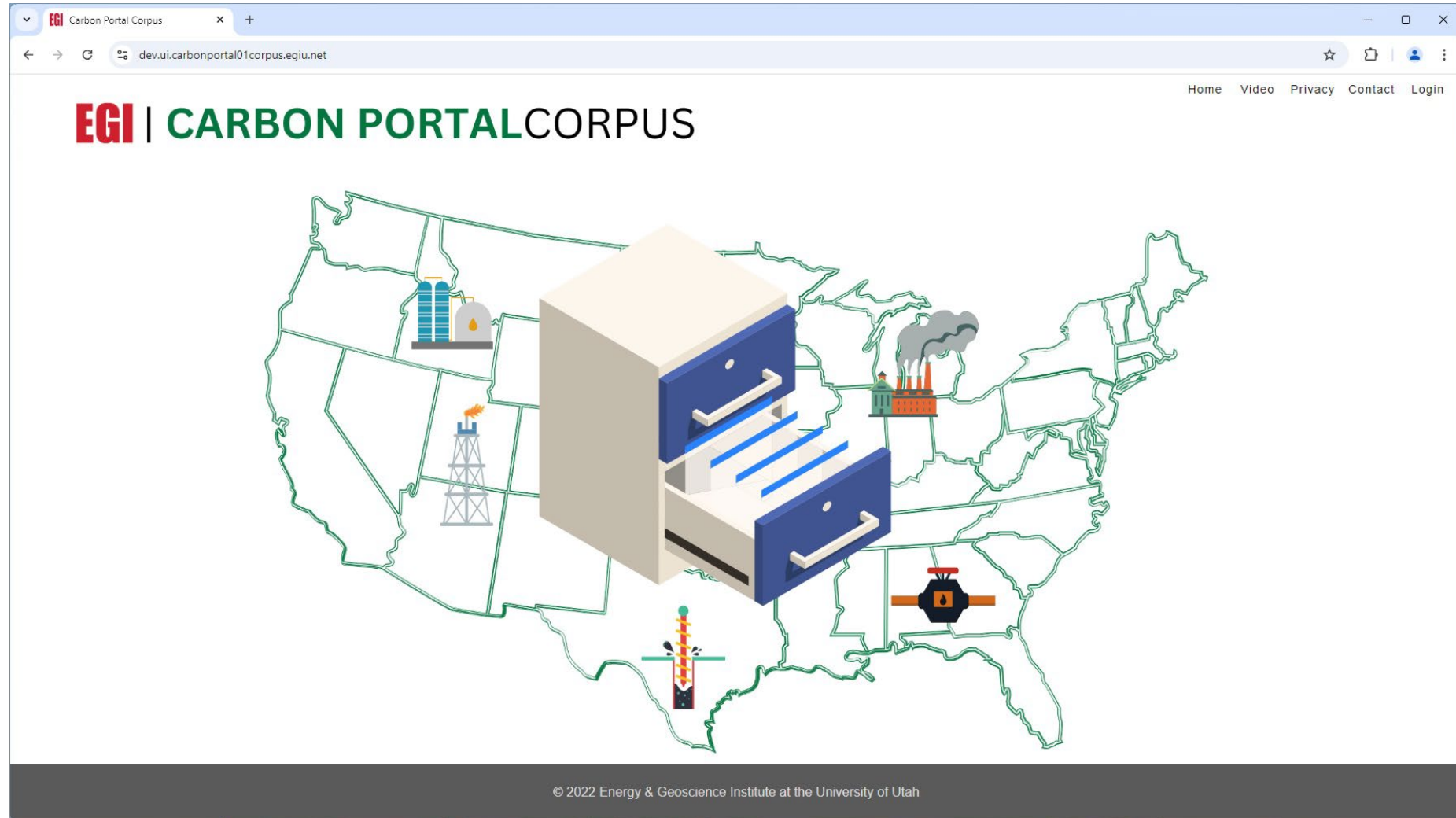
Workunits

A workunit is the smallest unit that can be indexed

Workunit Properties and Progress

Citations are Stored

Permanent Location of Original Data

Stakeholders can Request to Contribute

Upload files and describe topic

Upload files, Give Column-by-Column Instructions

Conclusion

➢ With the CarbonPortal stystem, the Stakeholder can:
  ▪ Perform advanced queries without coding knowledge
  ▪ Create advanced data visualizations easily (maps, xy-plots, tables, ...)
  ▪ Visualize data three-dimensionally
  ▪ Scan for correlations without expertise in statistics
  ▪ View spatial and temporal relationships of traditionally unrelated data (Ex: Geology, Industry, Political)
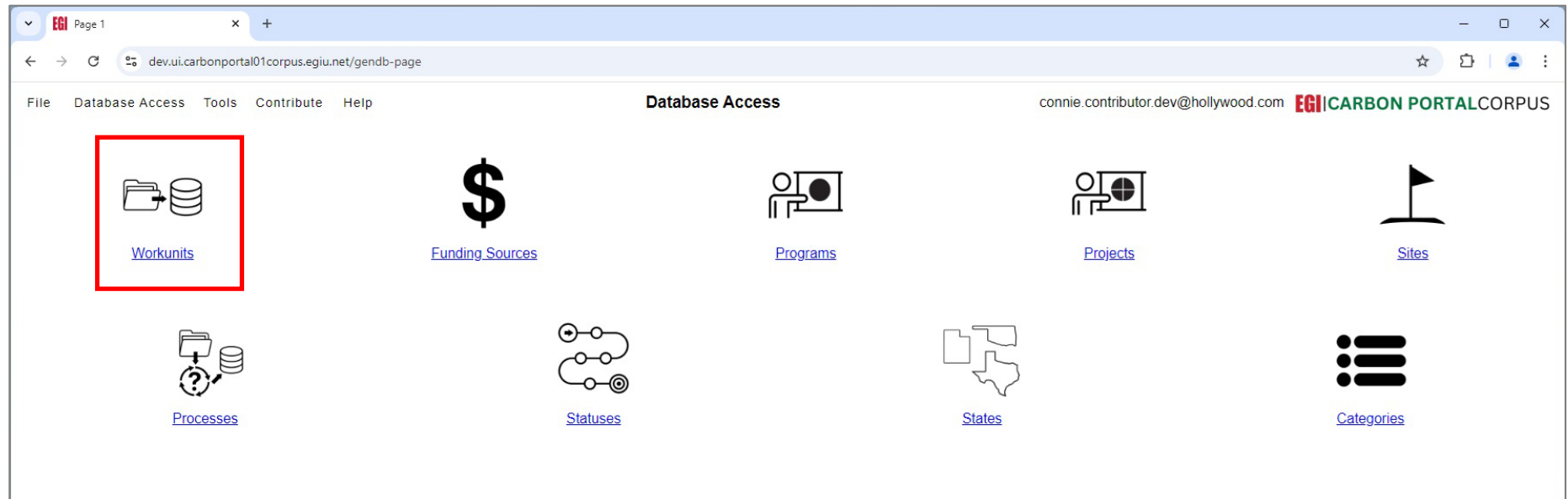 ▪ Report on the source of all data through a bibliography generation (MyBibliography)
  ▪ Scaling: Subjects, Data, Visualizations and Tools can be added indefinitely

➢ CUSP DB Future:
  ▪ 16 CUSP workunits have so far been processed
  ▪ The CORPUS is full of more CUSP workunits ready to process
  ▪ Waiting for YOU to send more!

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Since
1972

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2024

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