

UPDATE ON CCUS IN WASHINGTON

LEE FLOREA
PROGRAM MANAGER

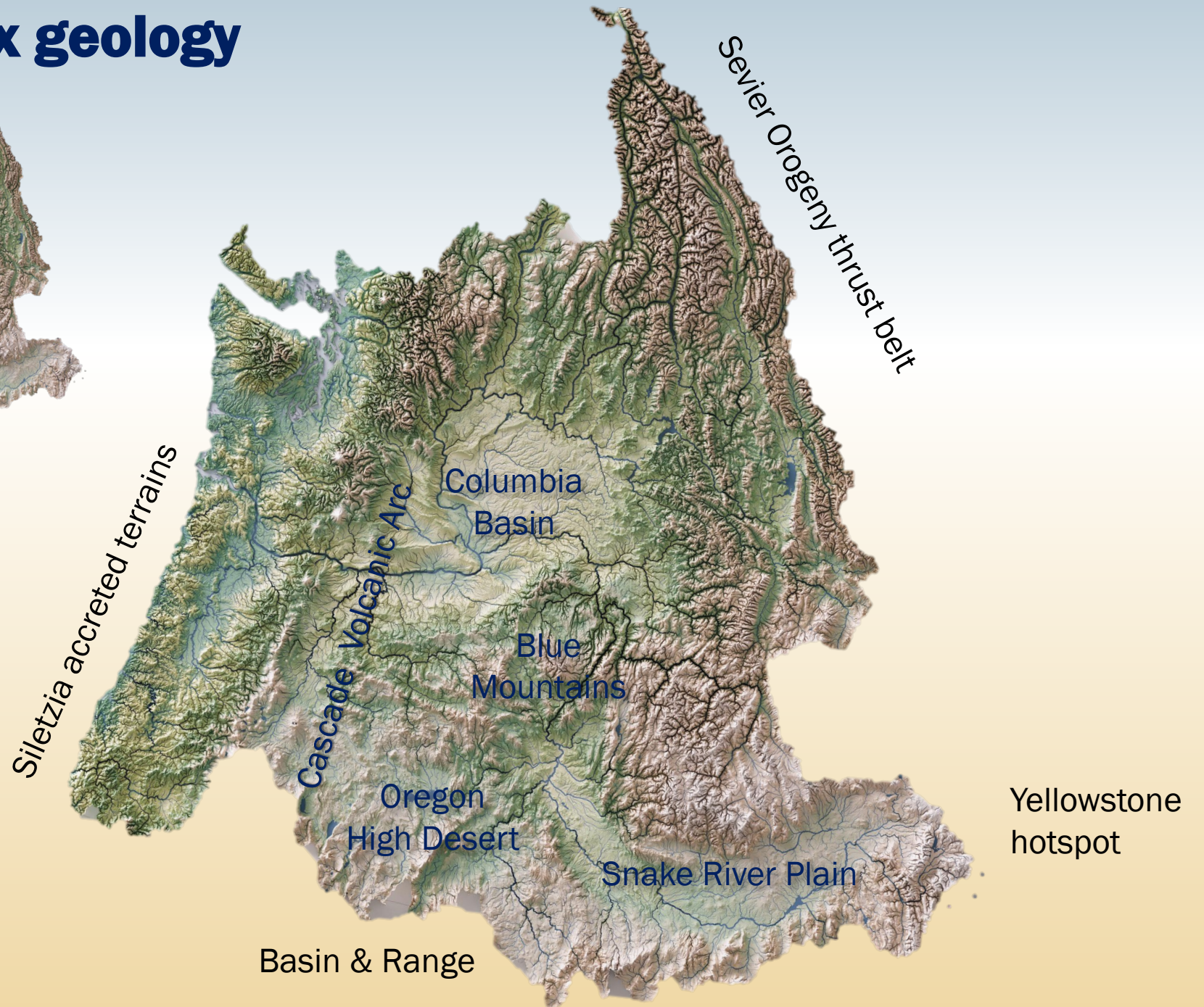


WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES
WASHINGTON GEOLOGICAL SURVEY



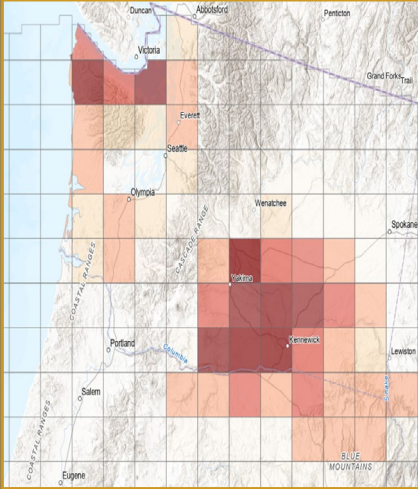
Exceptionally complex geology

- Transition from passive to active continental margin
- Orogens create complex mountain belts
- Exotic terranes accrete to western margin
- Hotspot track generates flood basalts
- Subduction results in landward volcanic arc
- Clockwise rotation of crust around Euler pole in NE OR



Carbon Sequestration

DOE – CUSP – NMT Lead



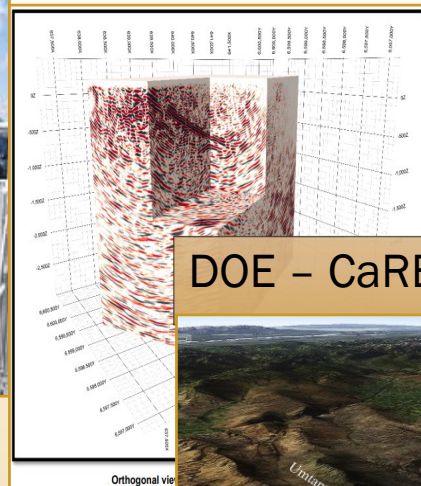
DOE – ARPA-E Miner – PNNL Lead



DOE – Ankeron DAC – RMI Lead



Breakthrough Energy



DOE – CaRB-TAP – Carbon Solutions lead



WA-DOC – CCL lead



DOE CarbonSAFE – HERO – PNNL Lead

Presentations at:

- GSA Annual Meeting
- AAPG CCUS Conference
- WA Hydro Symposium
- GSA Cordilleran Section
- CUSP Annual Meeting

Hosted basalt session at:

- GSA Cordilleran Section
- 12 talks, 2 posters

Geothermal Resources

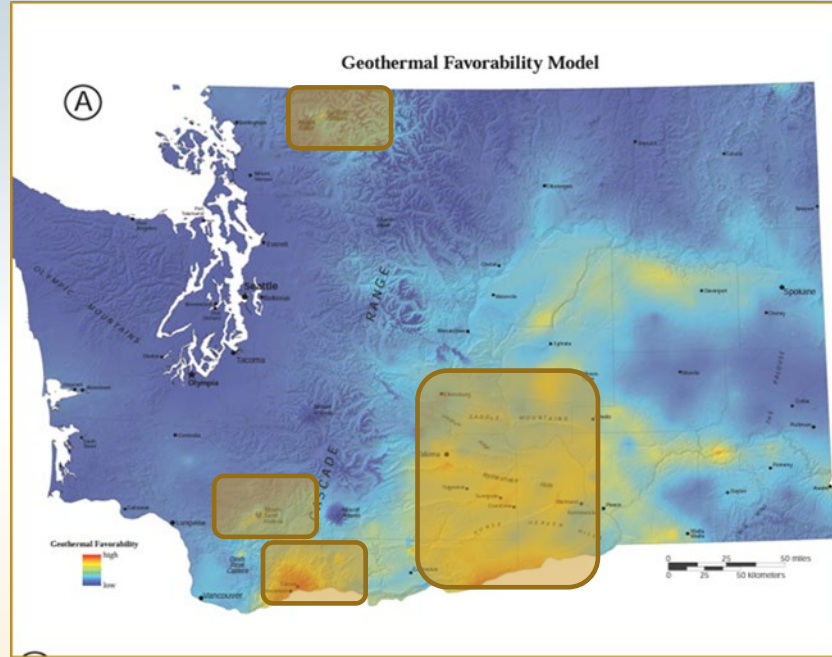


Public Utilities

Private Interests



WA State Leg



Geothermal database

Geobody/Geofluid models

ESSB 6039

Subsurface Data Management

- Develop subsurface database
- Gather data from other agencies
- Acquire new data
- Assess seismic risk

Geothermal Lease Rates

- Revise to be competitive

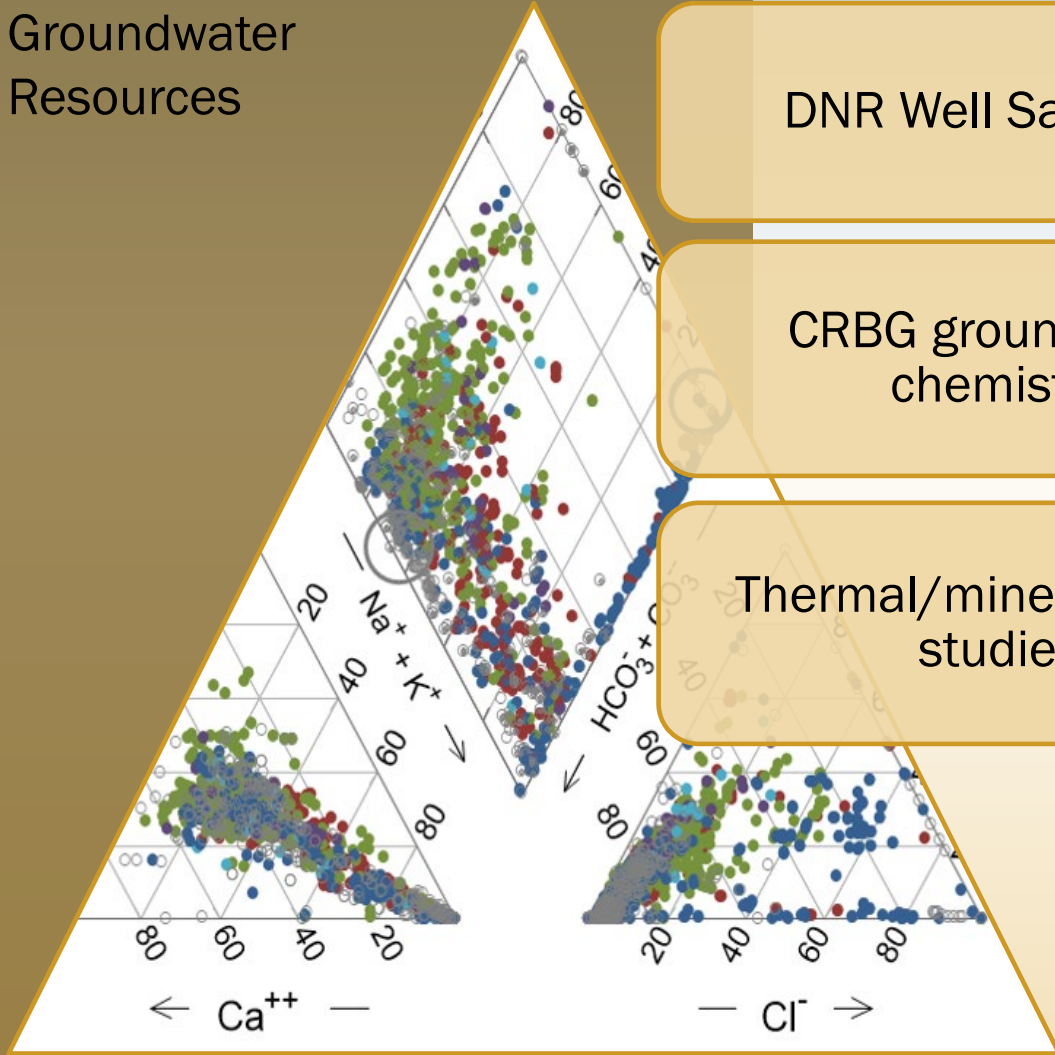
Cost Share Grant Program

- WGS provides grant review & receives generated data

Pre-EIS study

- ECY lead + WGS & COM

Groundwater Resources



DNR Well Sampling

Continued collaborations with PSL for access

CRBG groundwater chemistry

Groundwater chem database and tech report

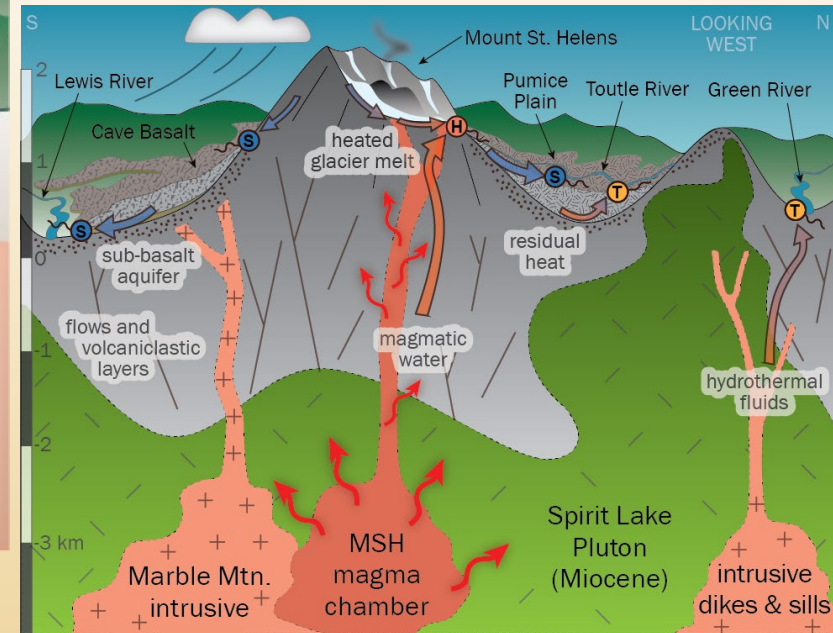
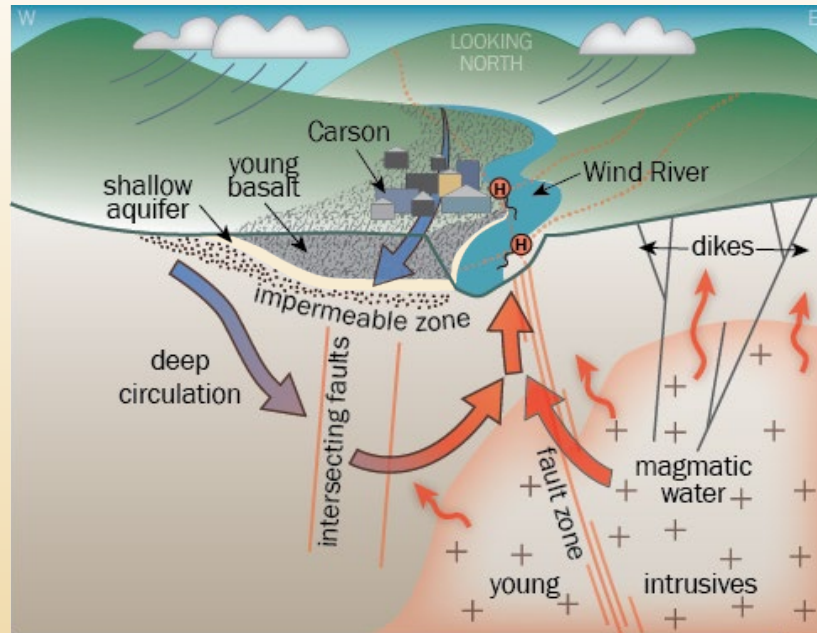
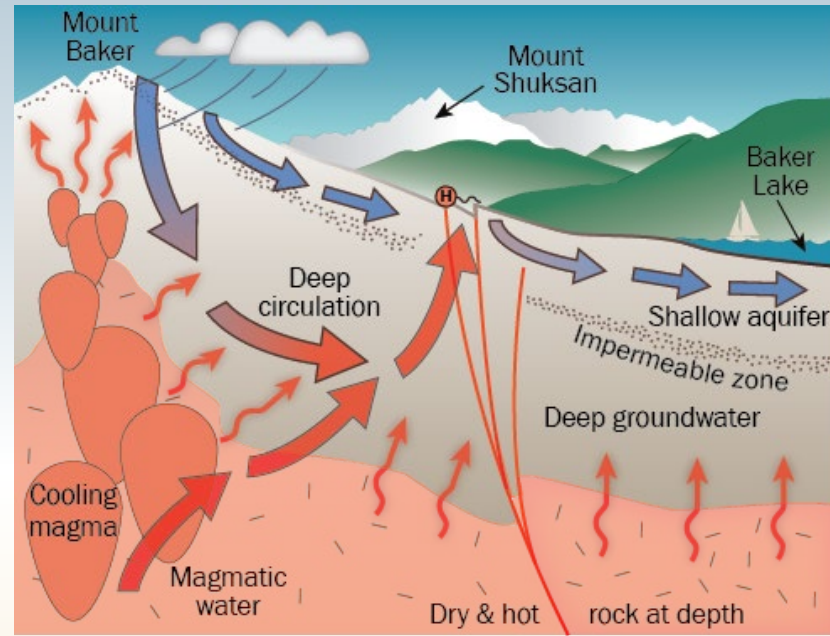
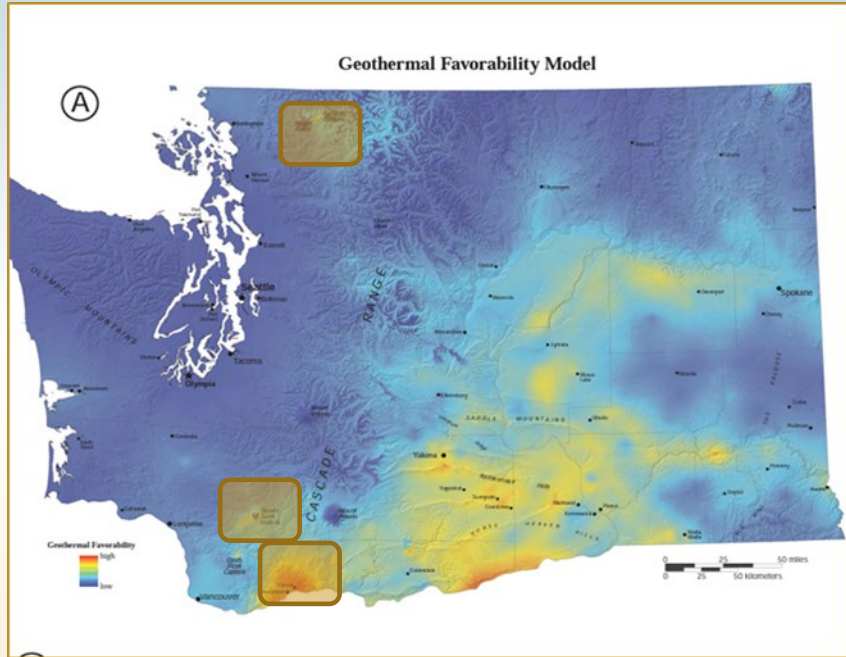
Thermal/mineral spring studies

Collaborations with PSU

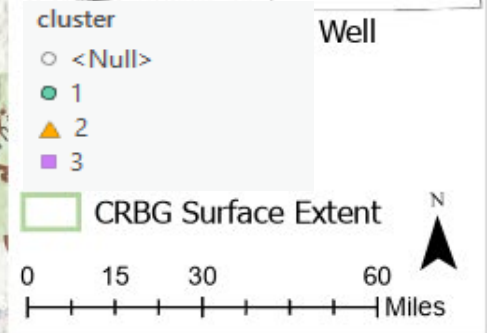
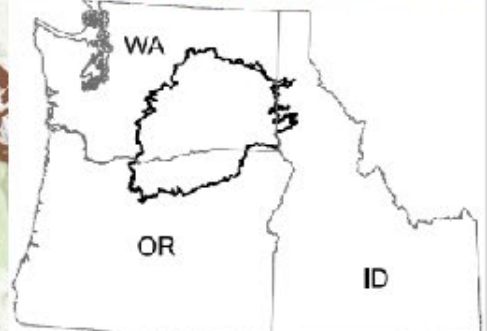
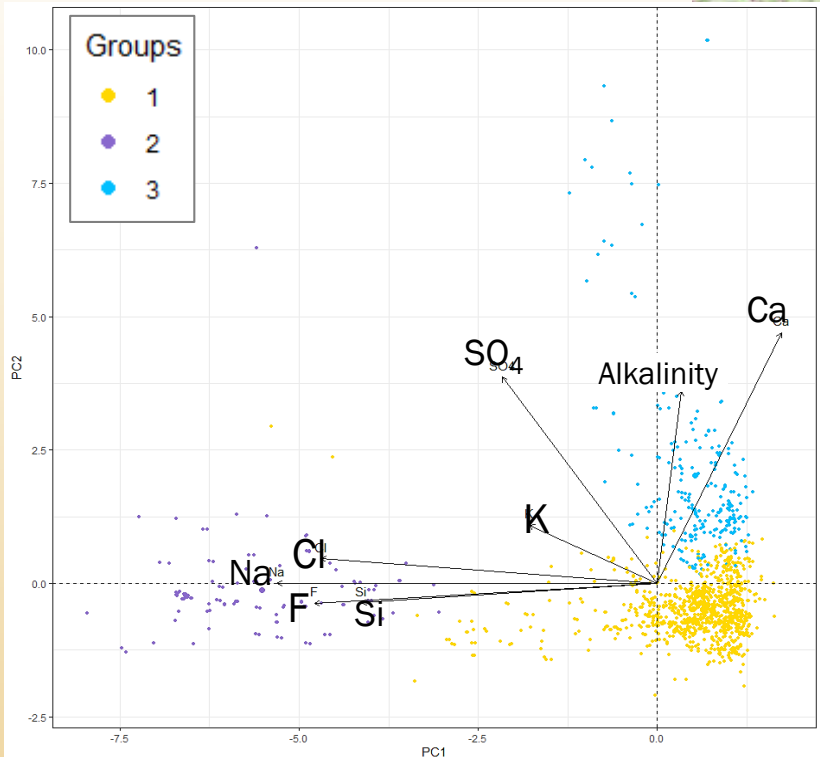
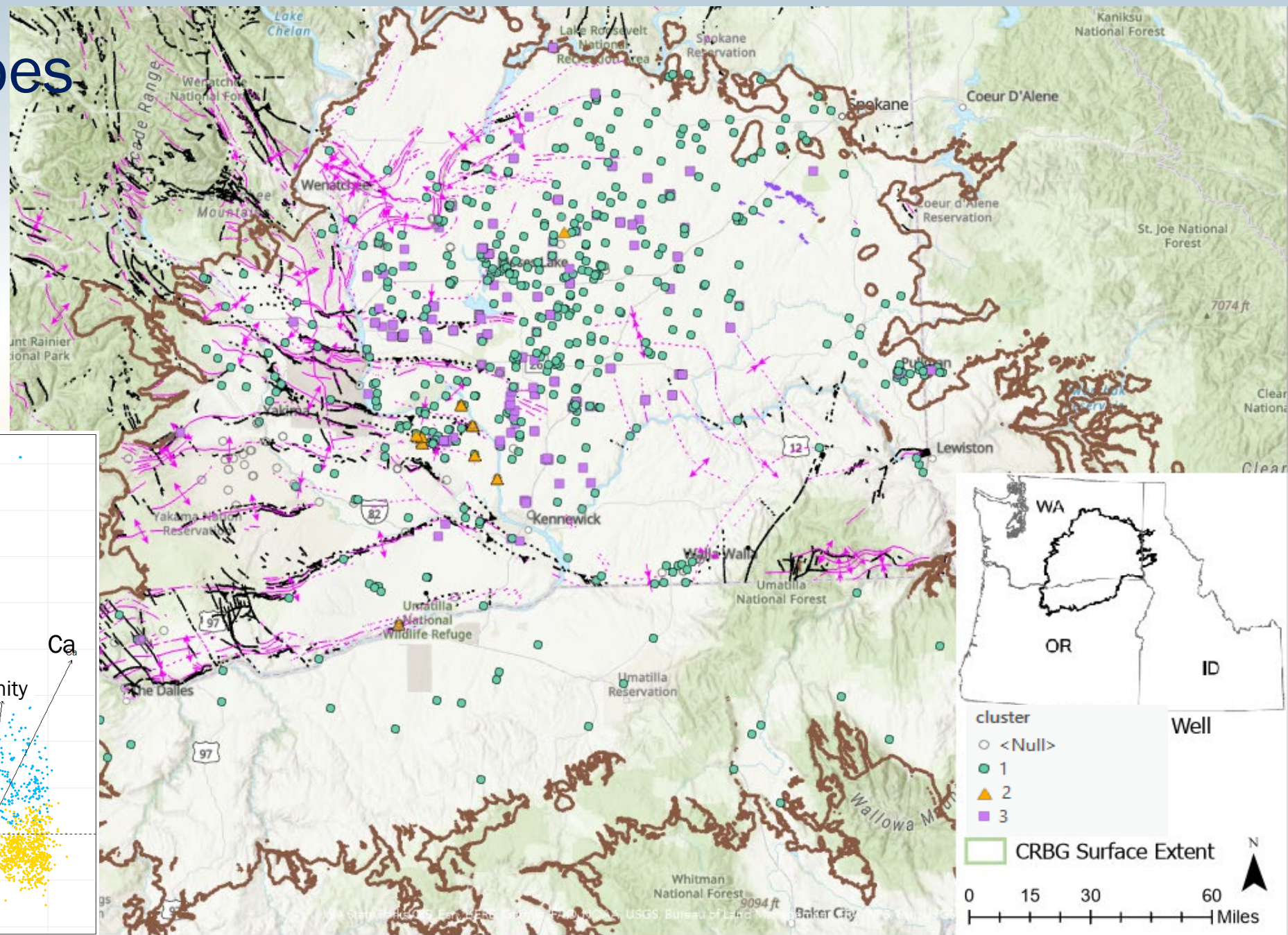
Groundwater factsheet

SpC/TDS Depth map for CRBG

Geothermal Play areas



CRBG Water Types



THANK YOU!



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