

# PEACE RIVER REGIONAL DISTRICT GROUNDWATER BASELINE



Peace River near Hudson's Hope

PRRD Team  
GW Solutions - Interraplan

First Nations, thank you for having us on your land.

Chetwynd, May 2015



# Outline

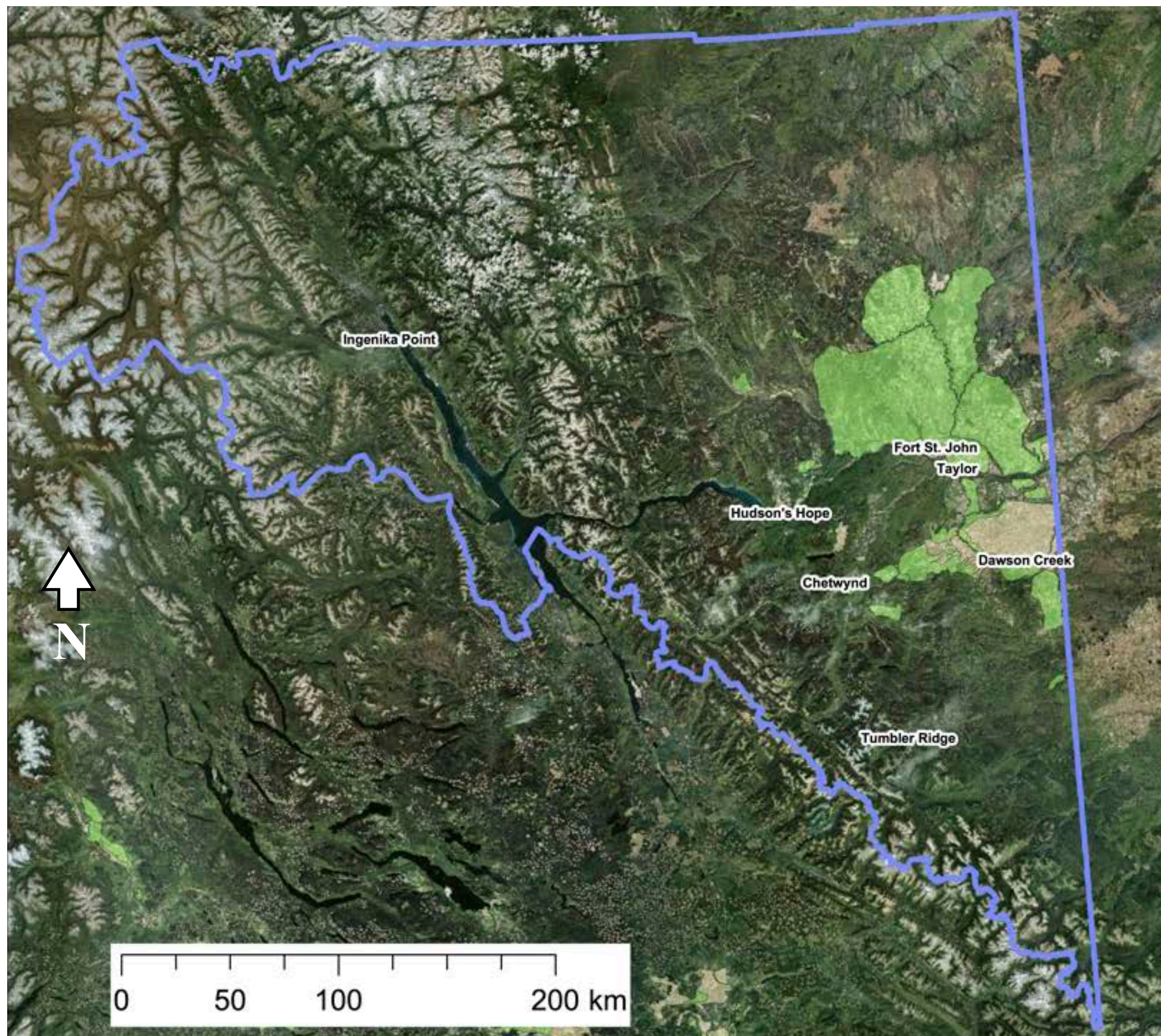
- Background
- Approach
- Preliminary Results



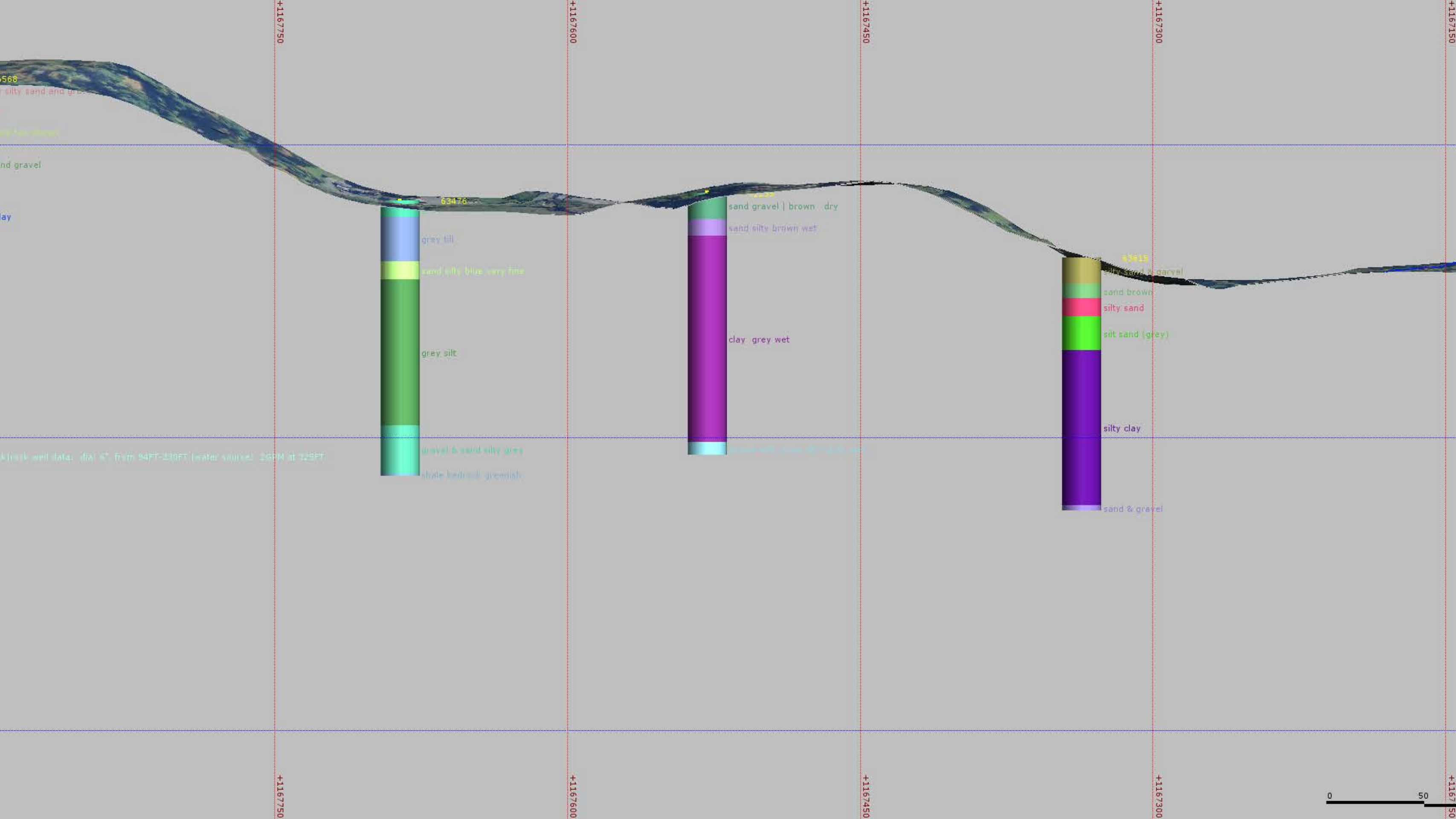
Aquifer Map (DataBC, Feb 2014)

Aquifer Material Class

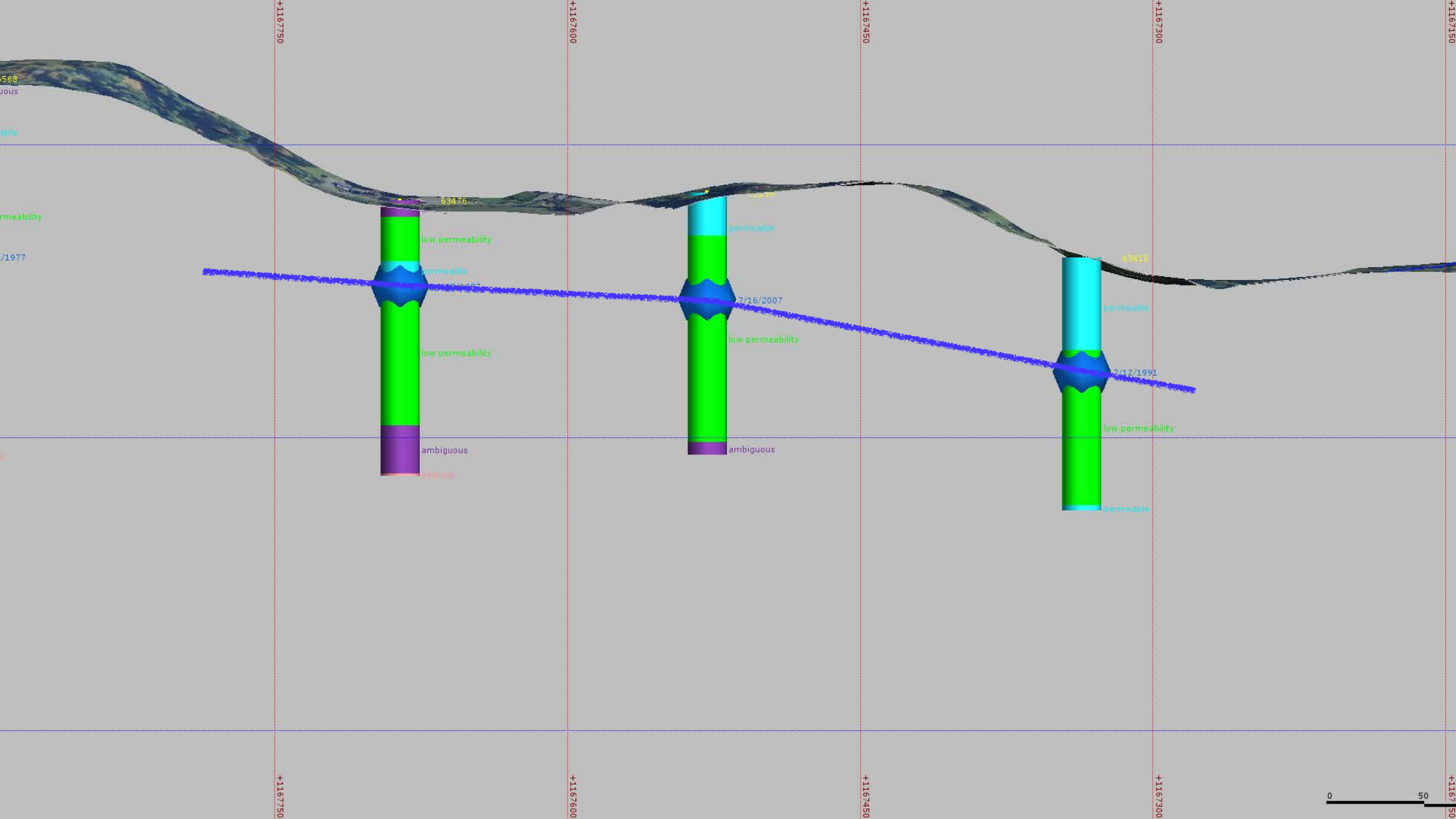
- Bedrock
- Gravel
- Sand
- Sand and Gravel



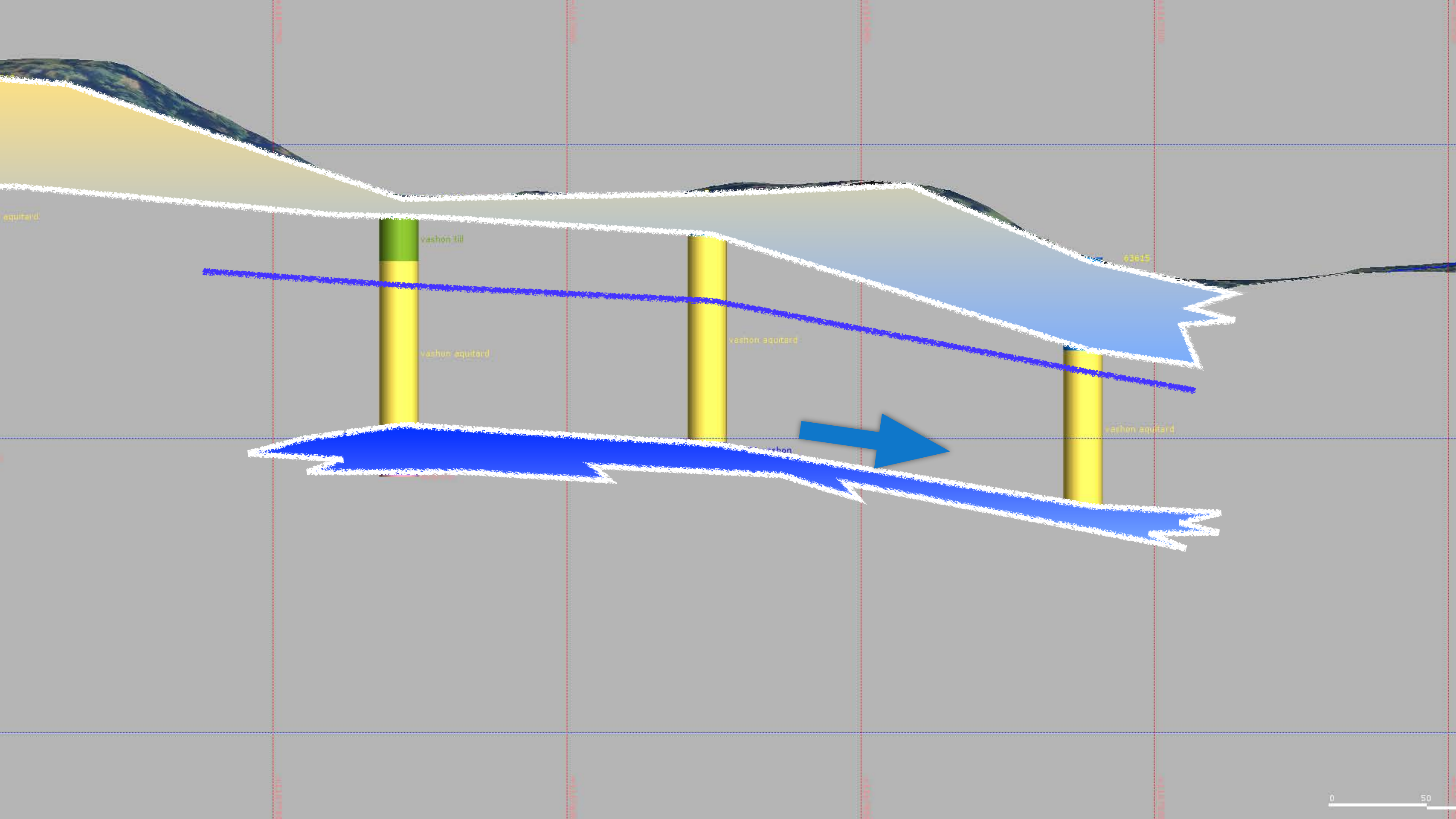




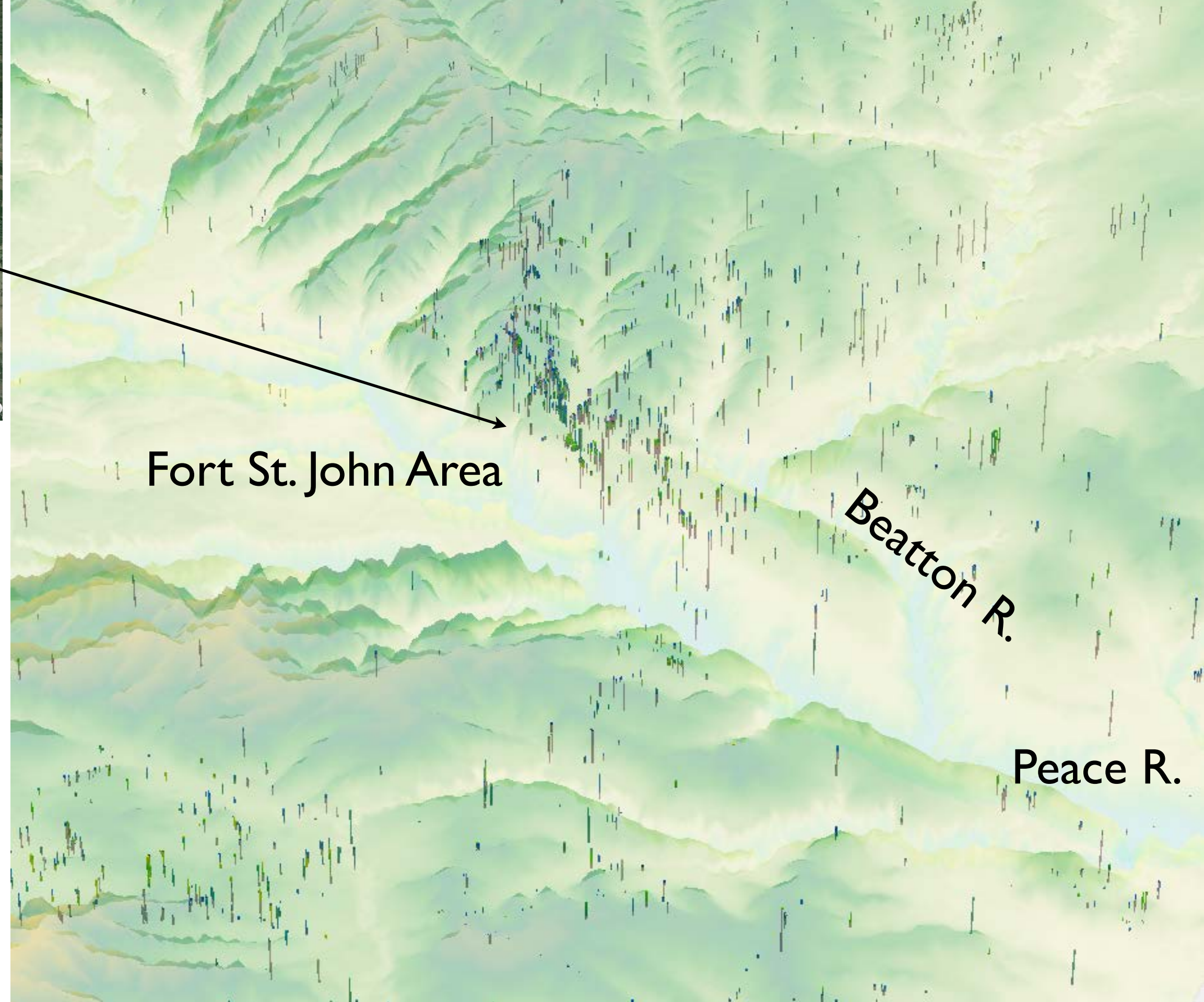










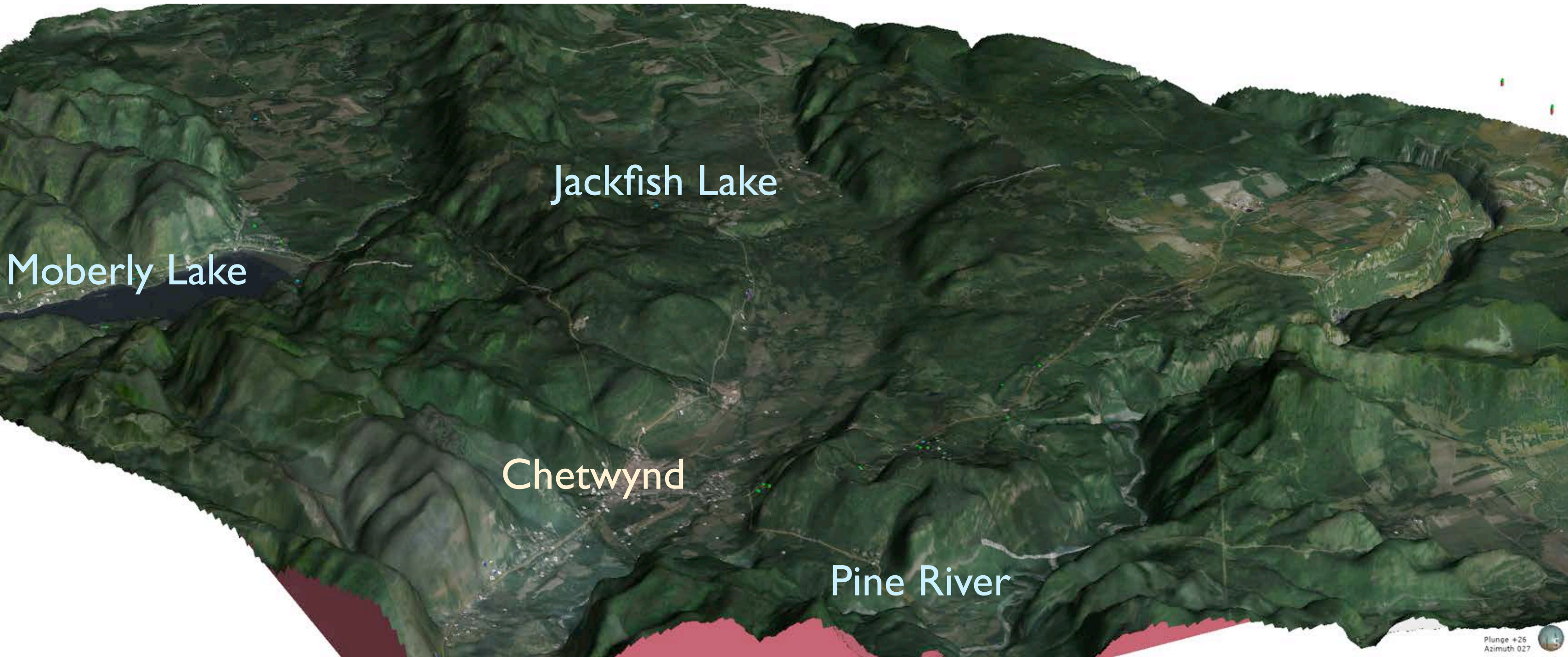


Oct 2014:

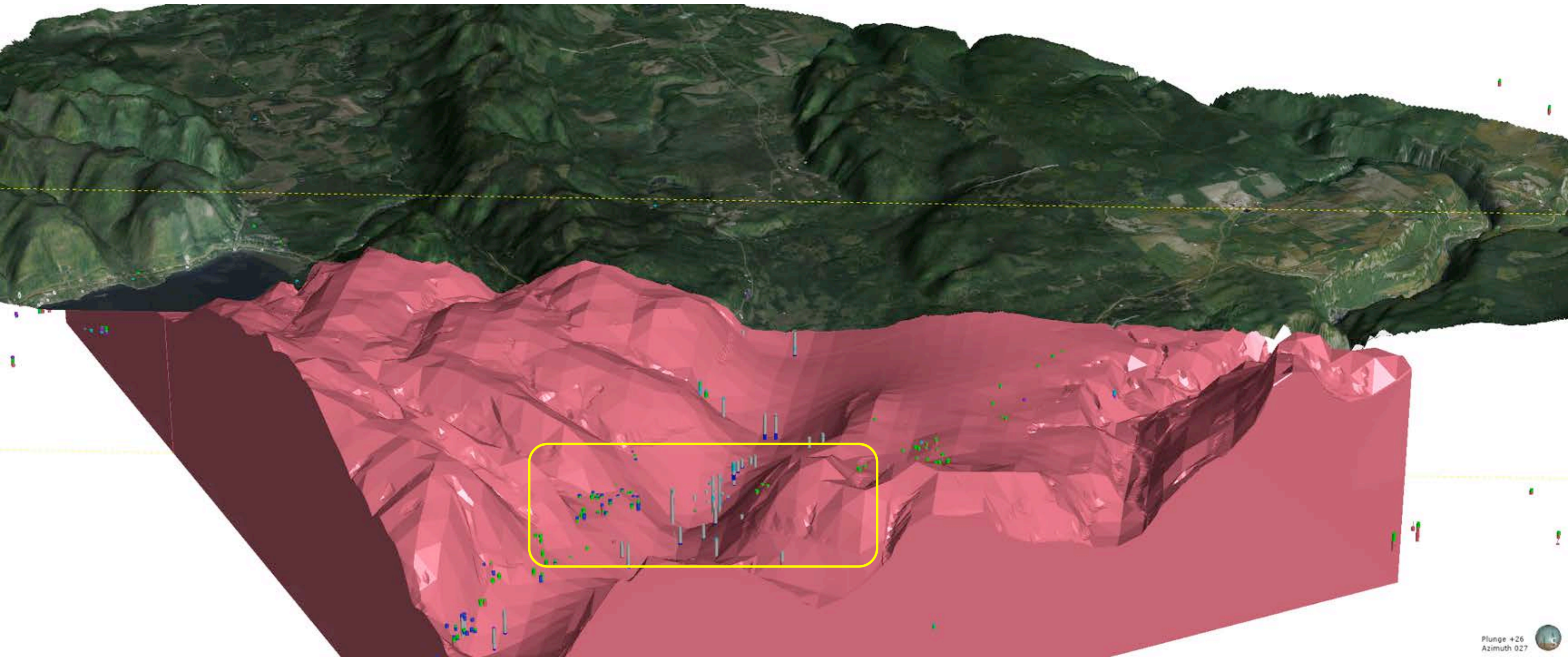
2400 “clean” well logs.



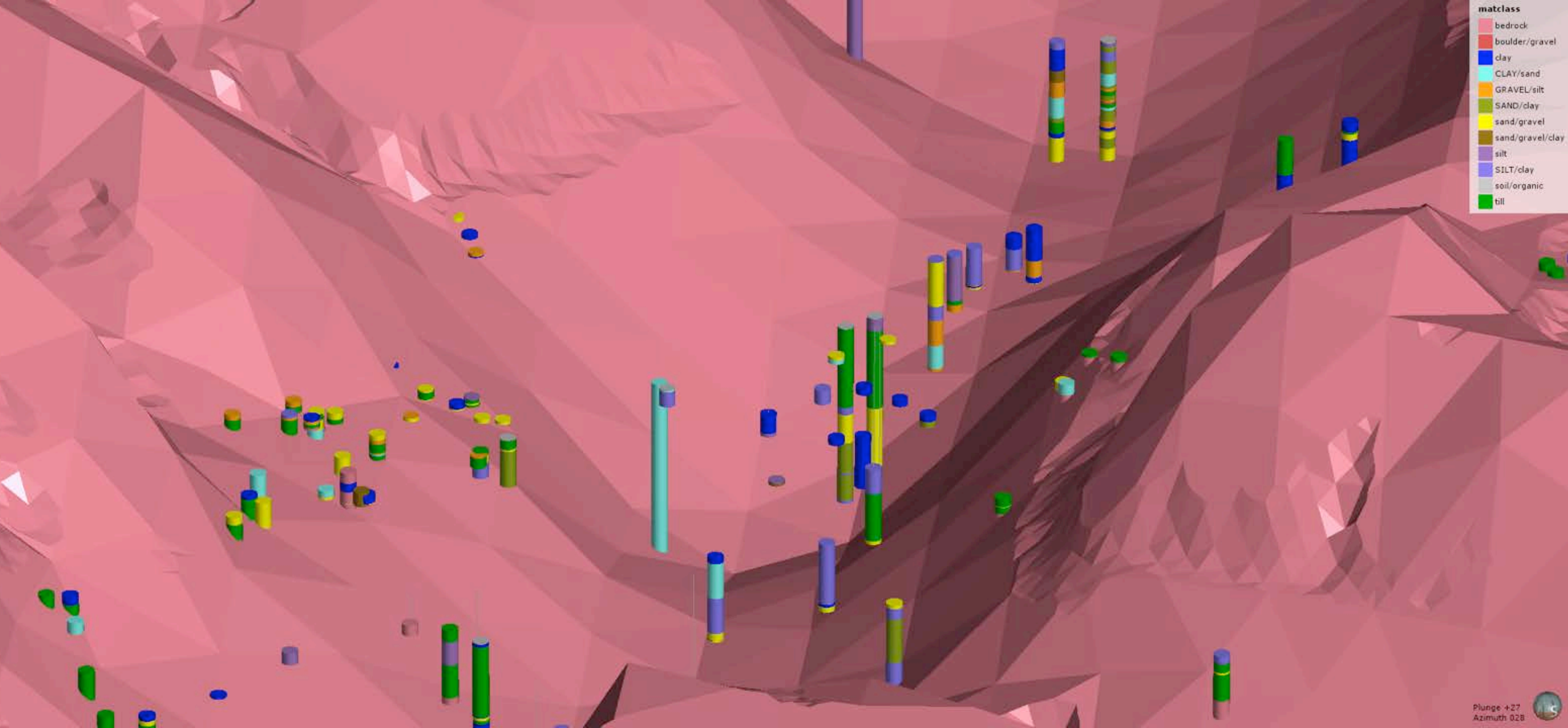
# Chetwynd - Jackfish



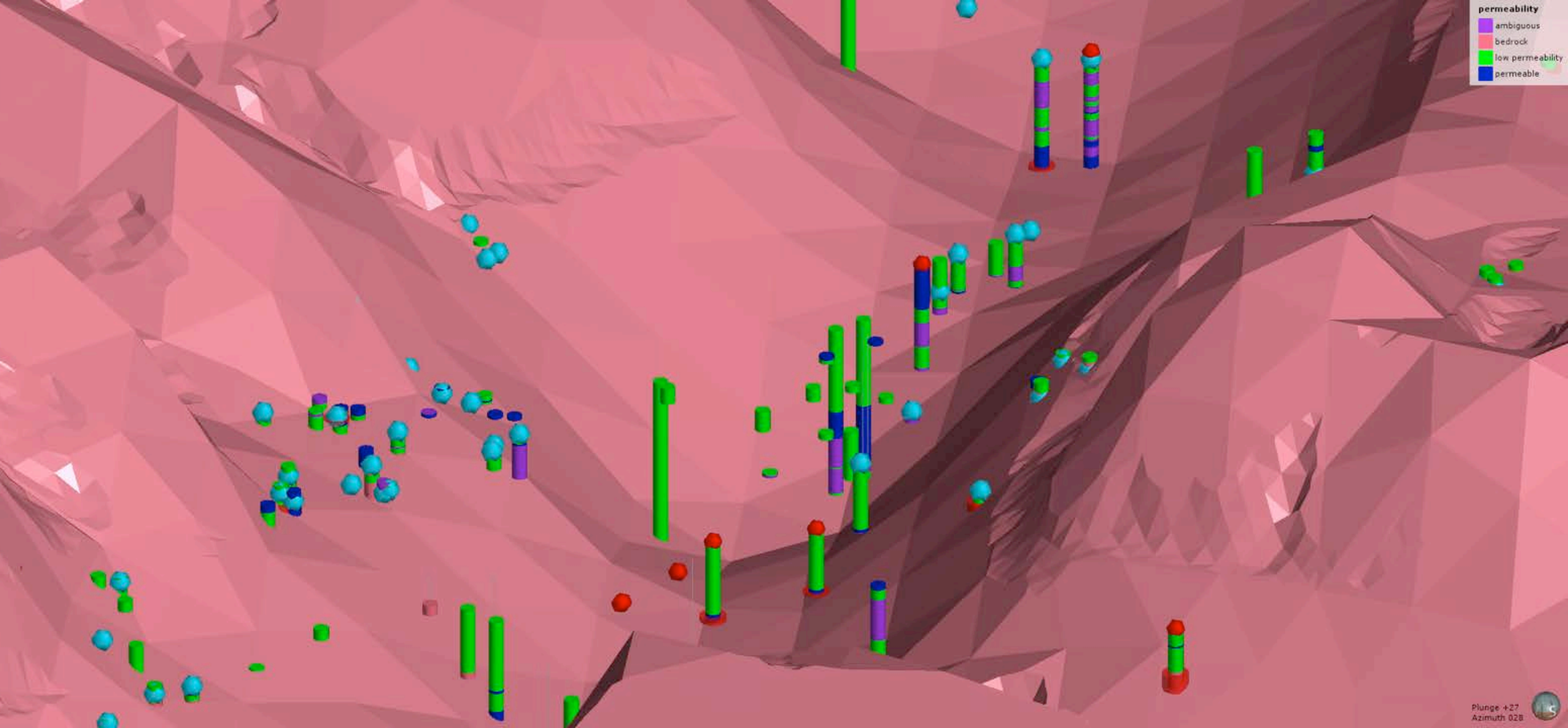








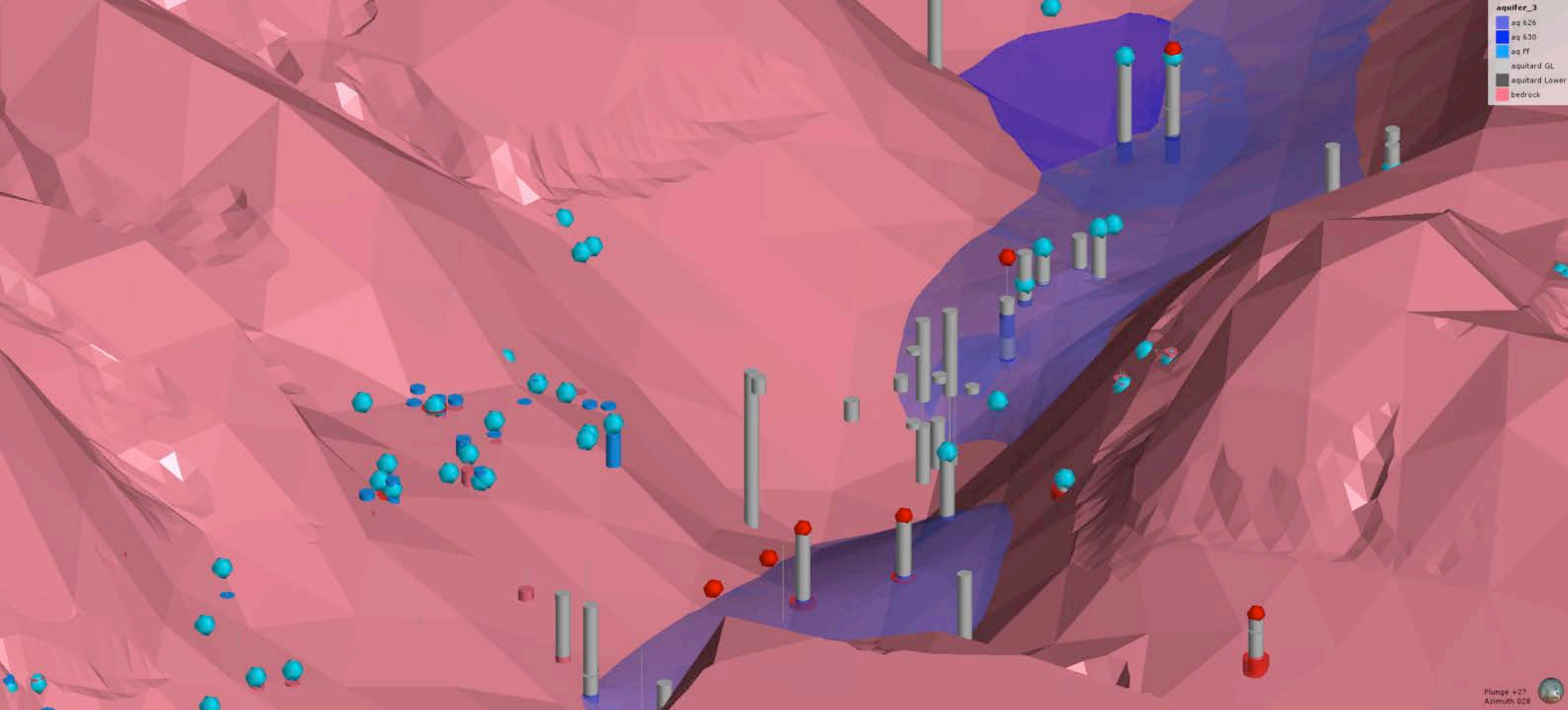




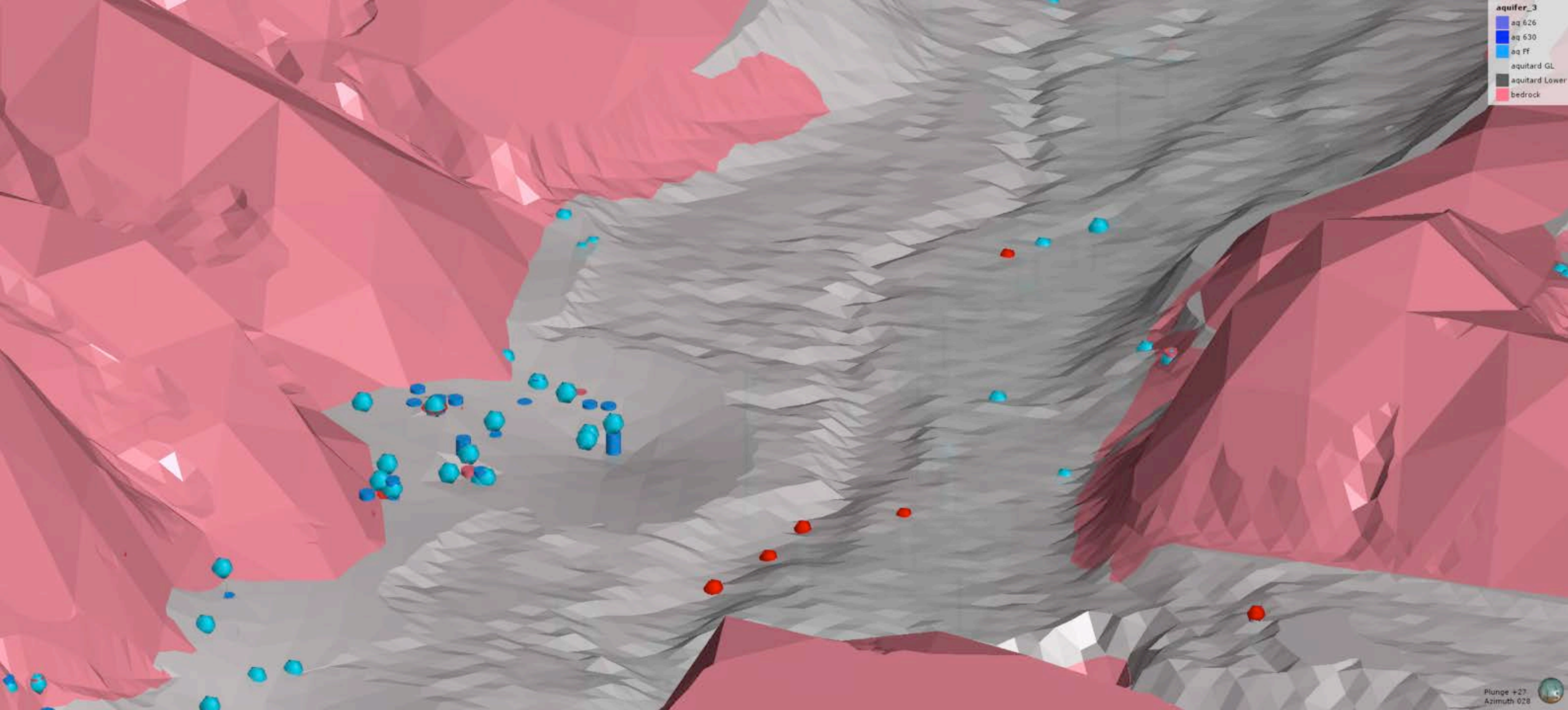
Plunge +27  
Azimuth 028



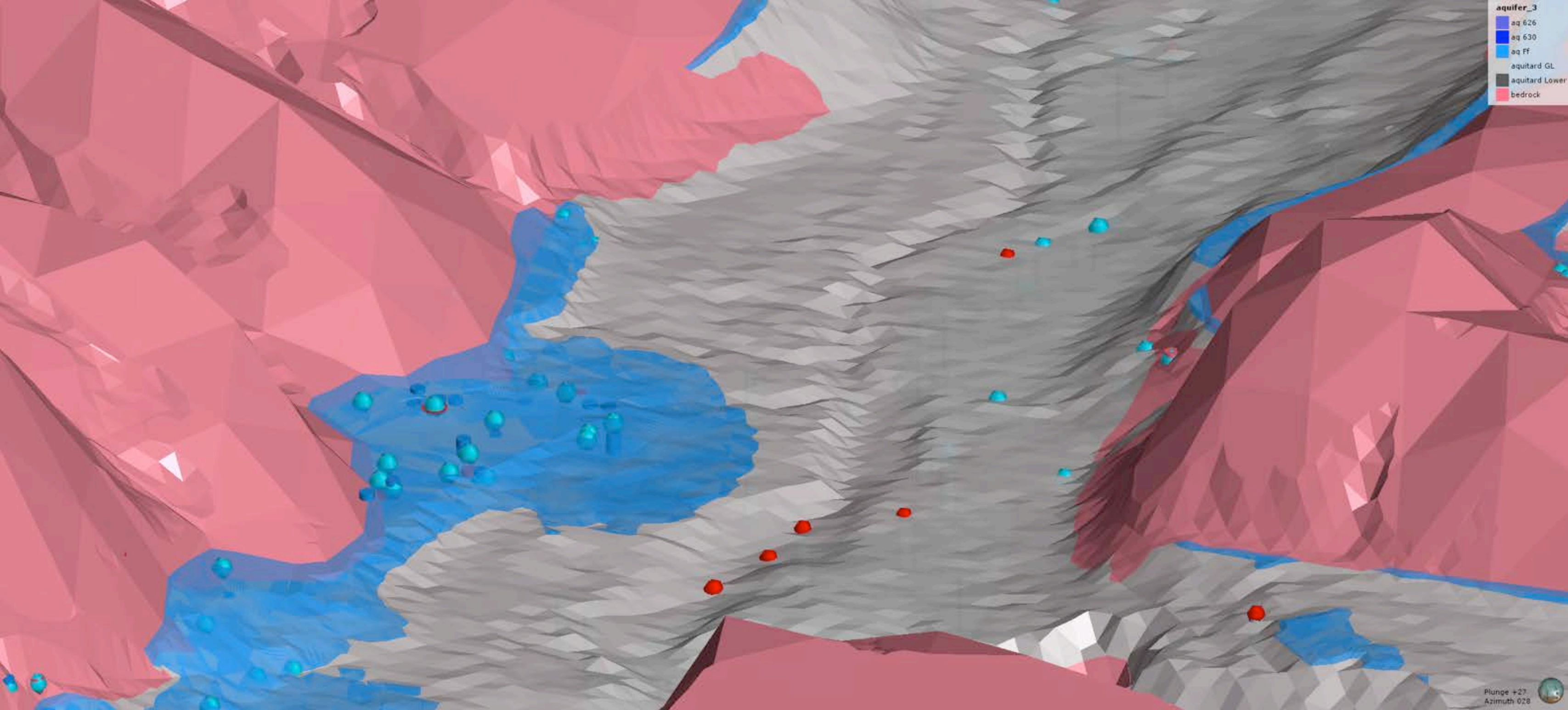






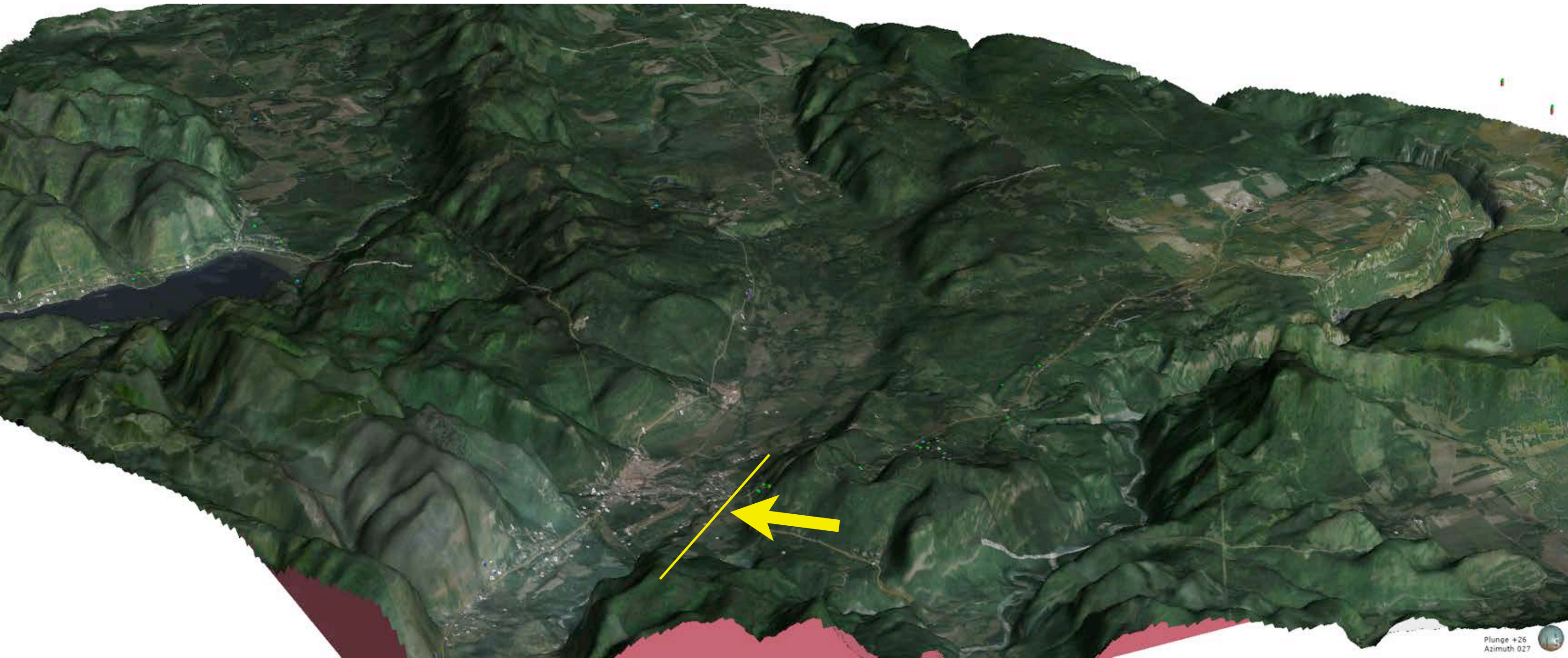






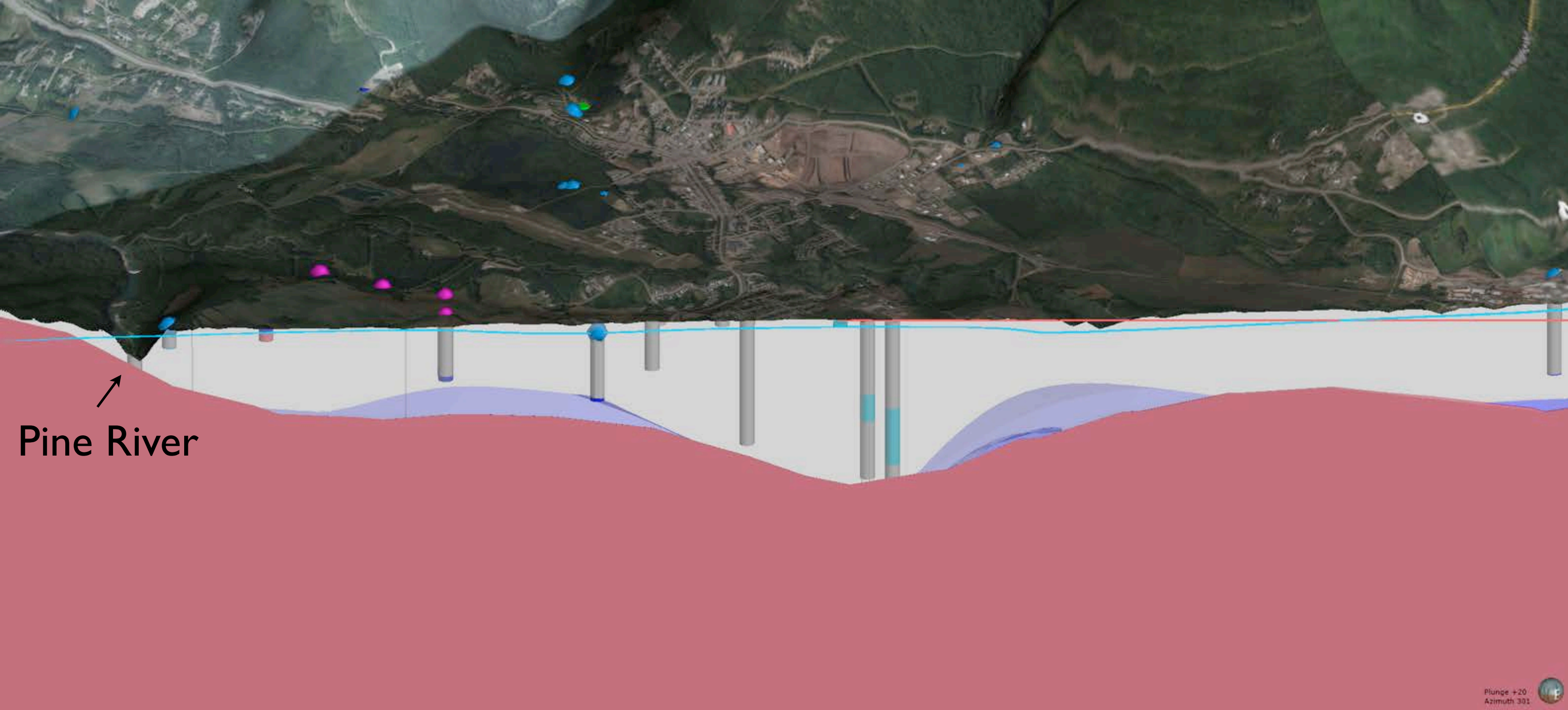


# Chetwynd - Jackpine

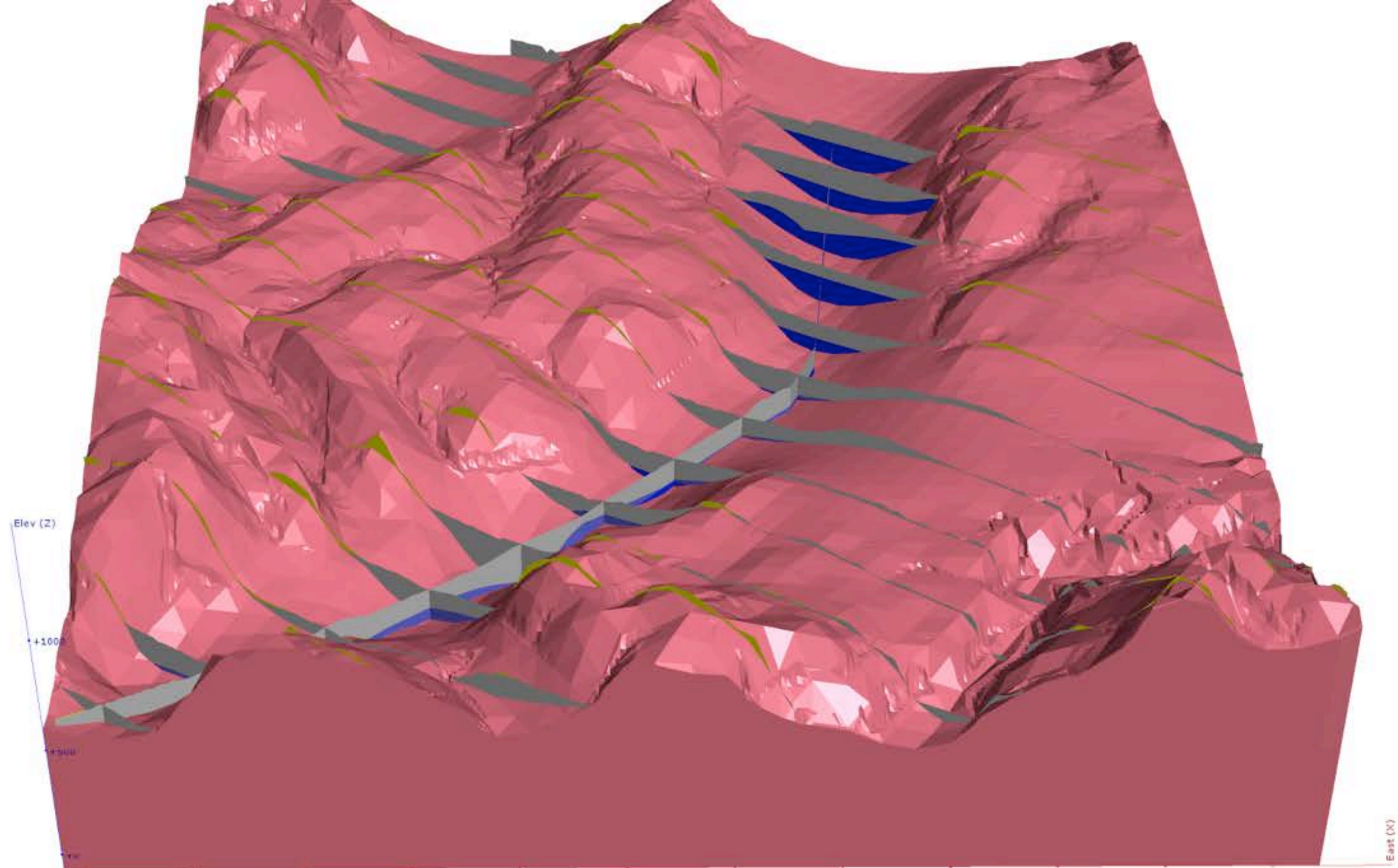


Plunge +26  
Azimuth 027



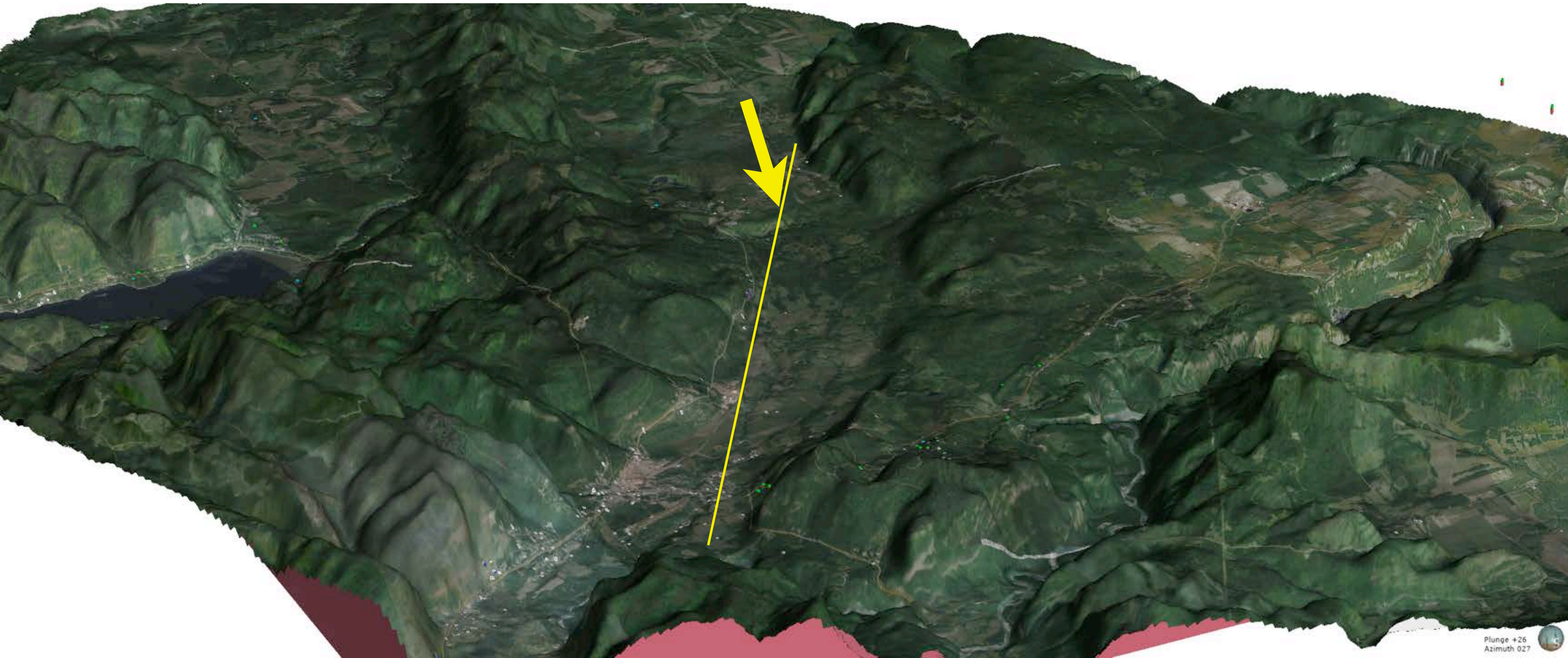




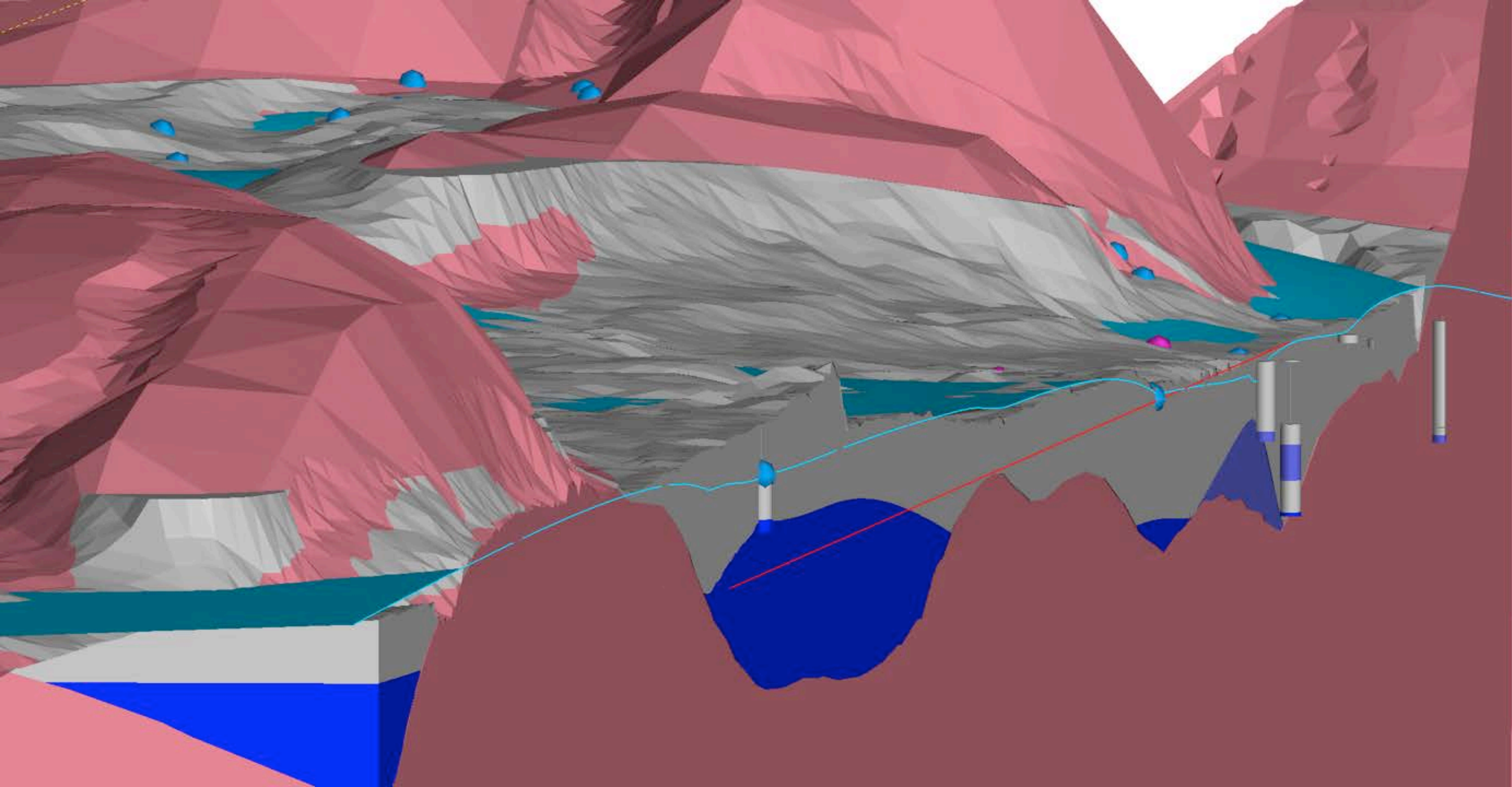




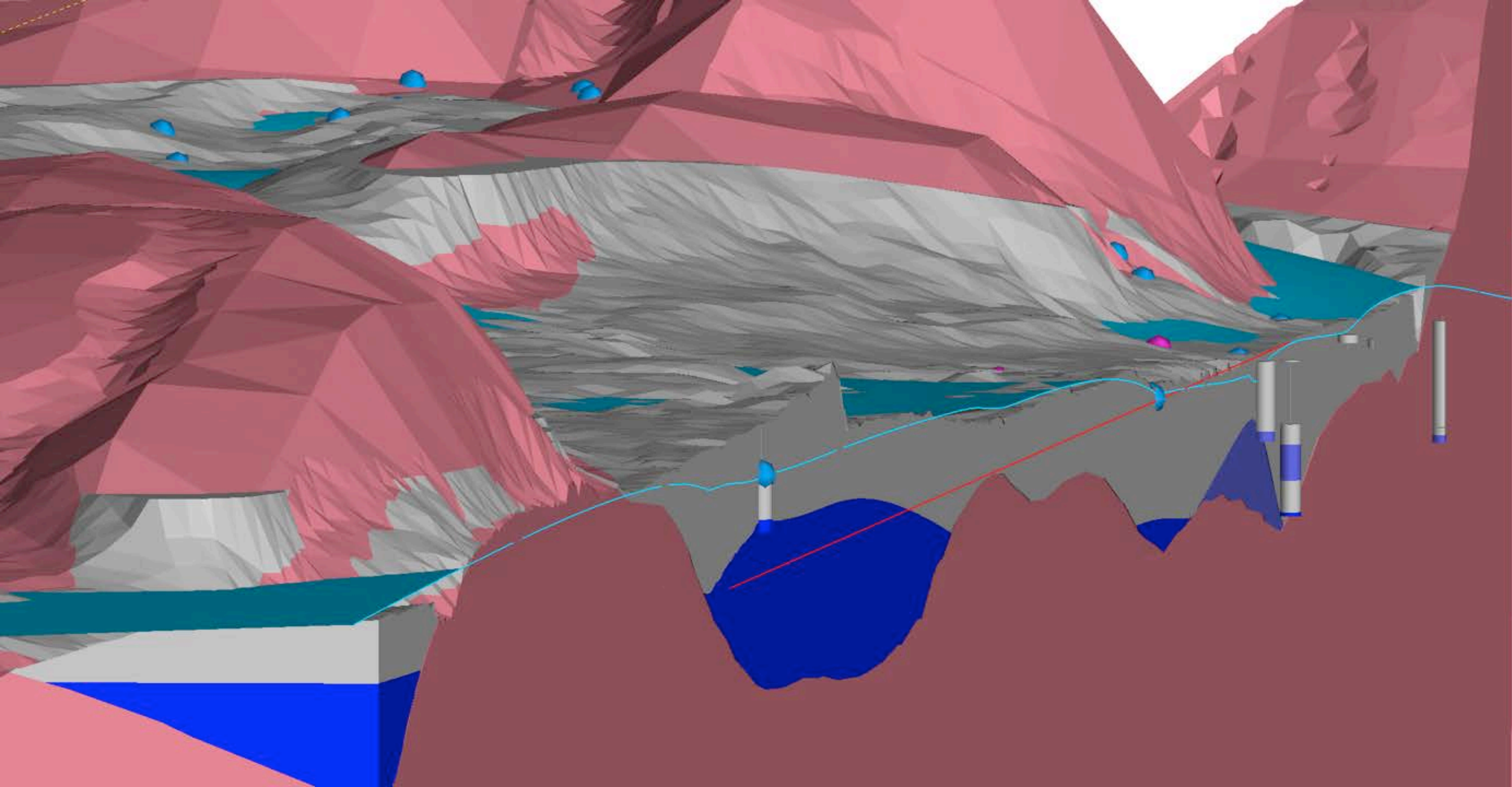
# Chetwynd - Jackpine





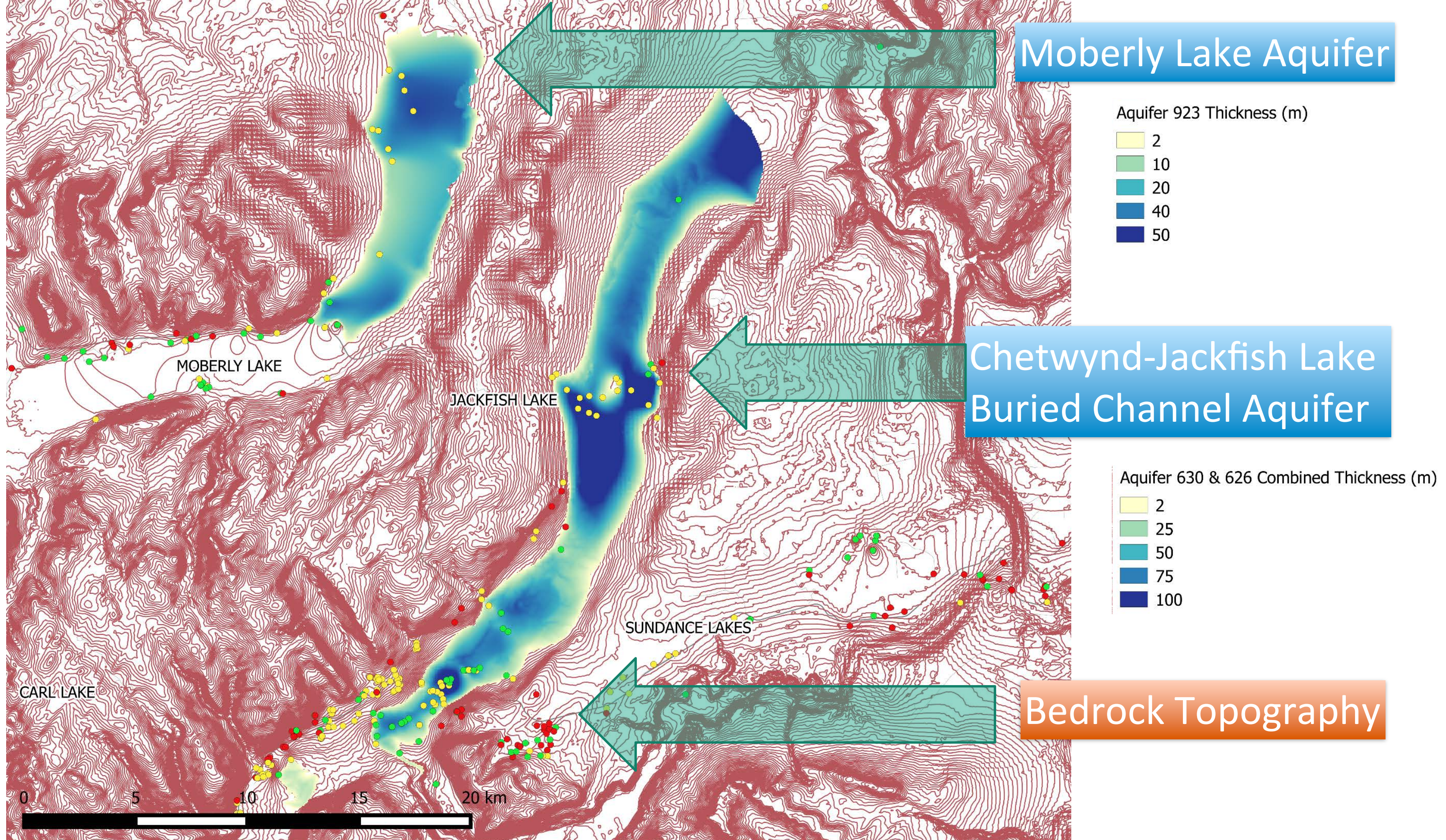






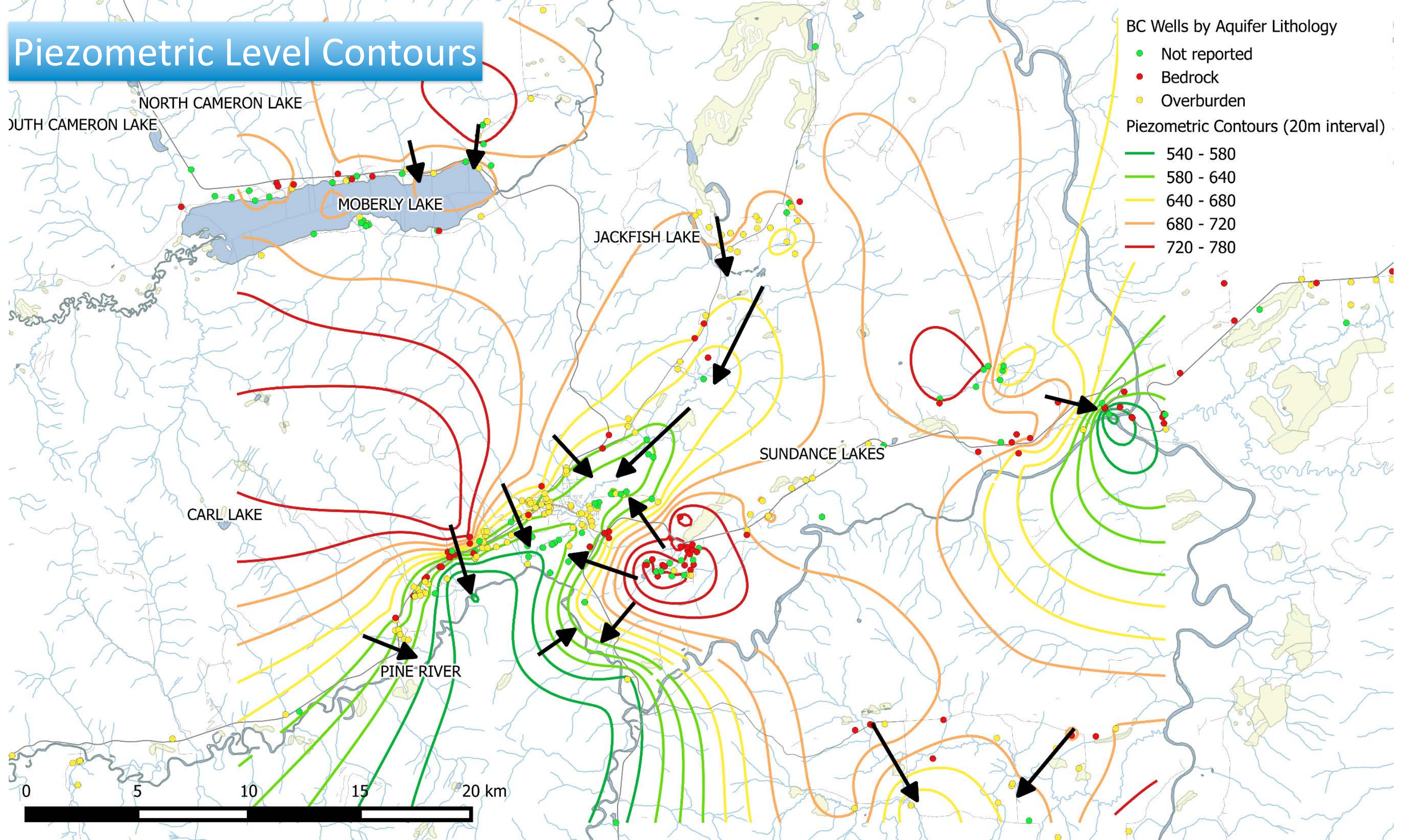
numerical hydrogeological modeling



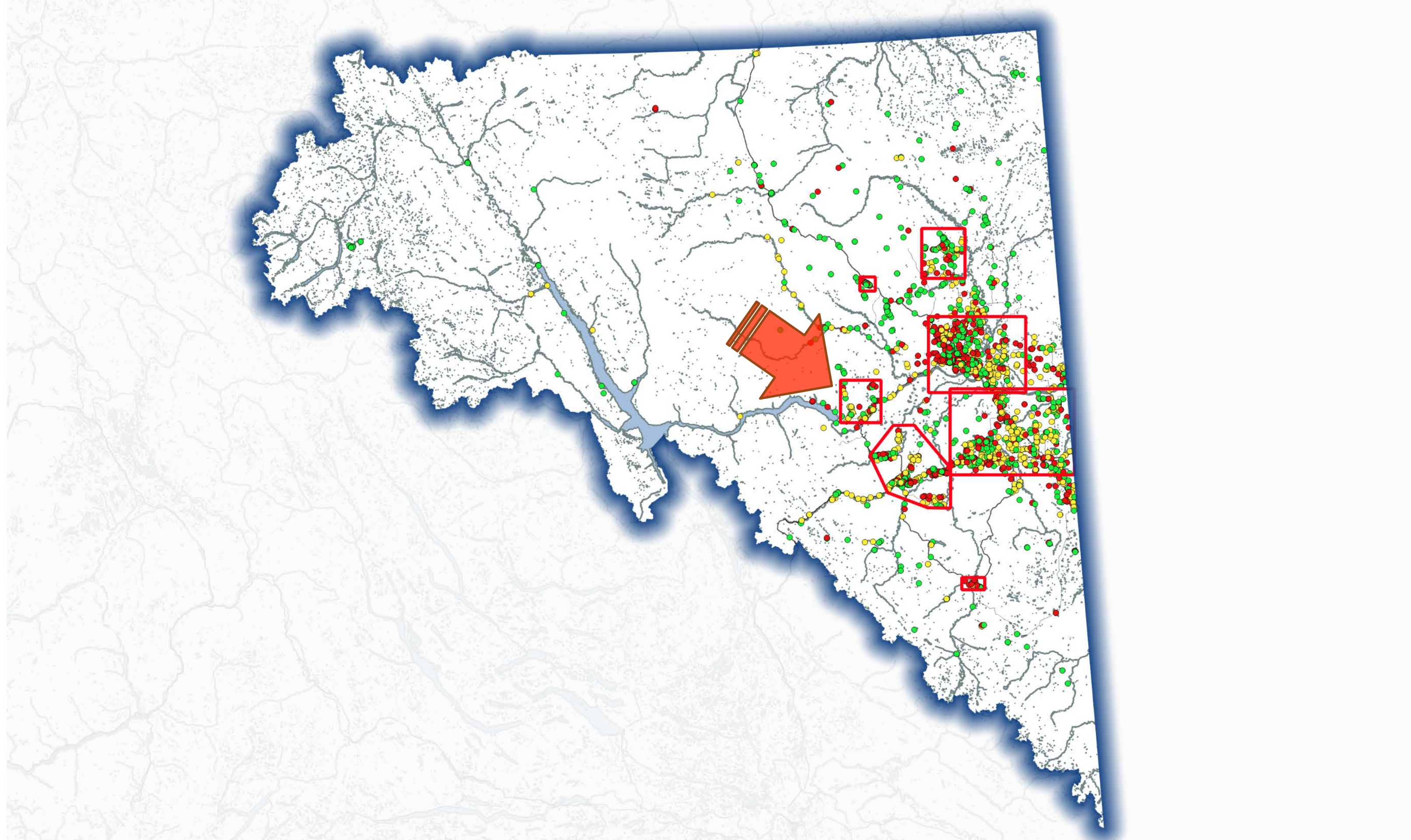




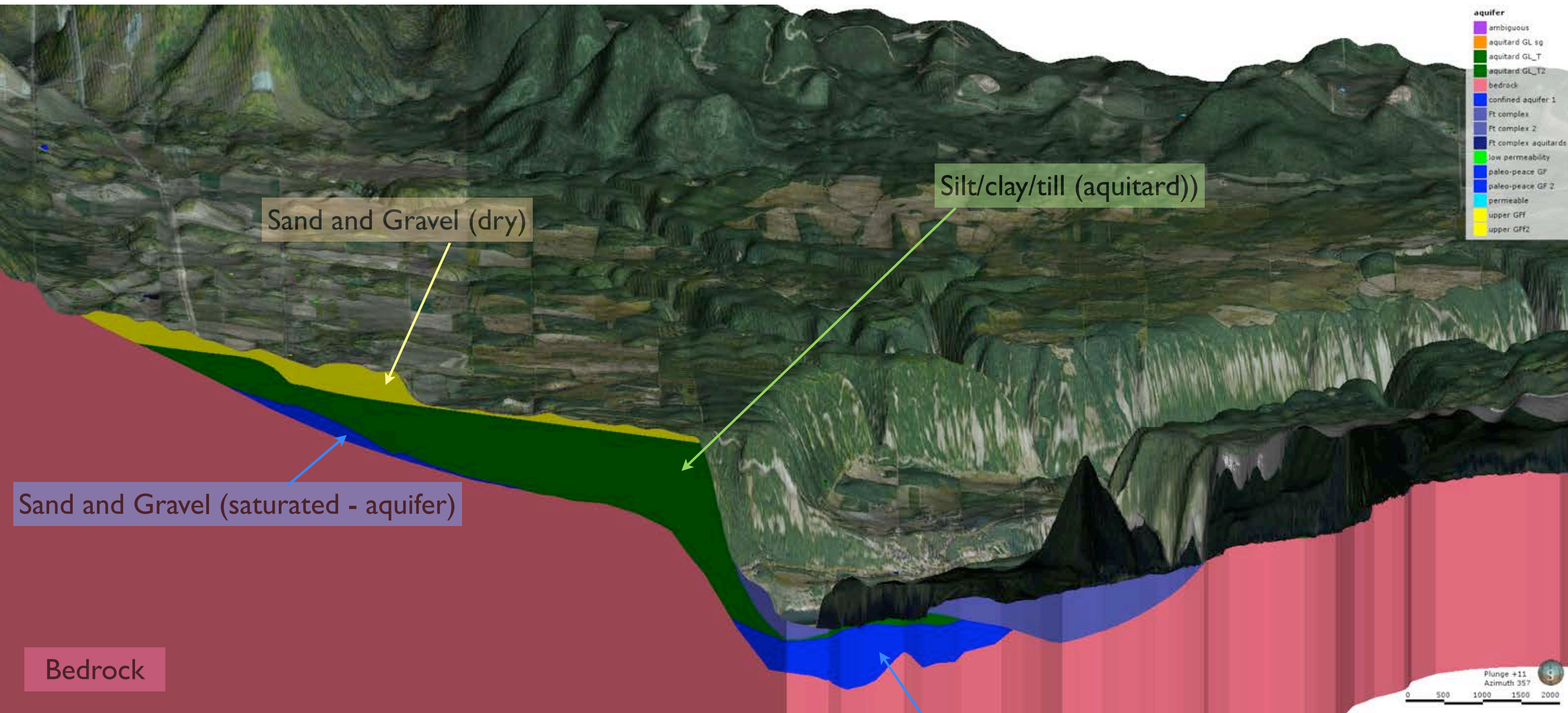
# Piezometric Level Contours



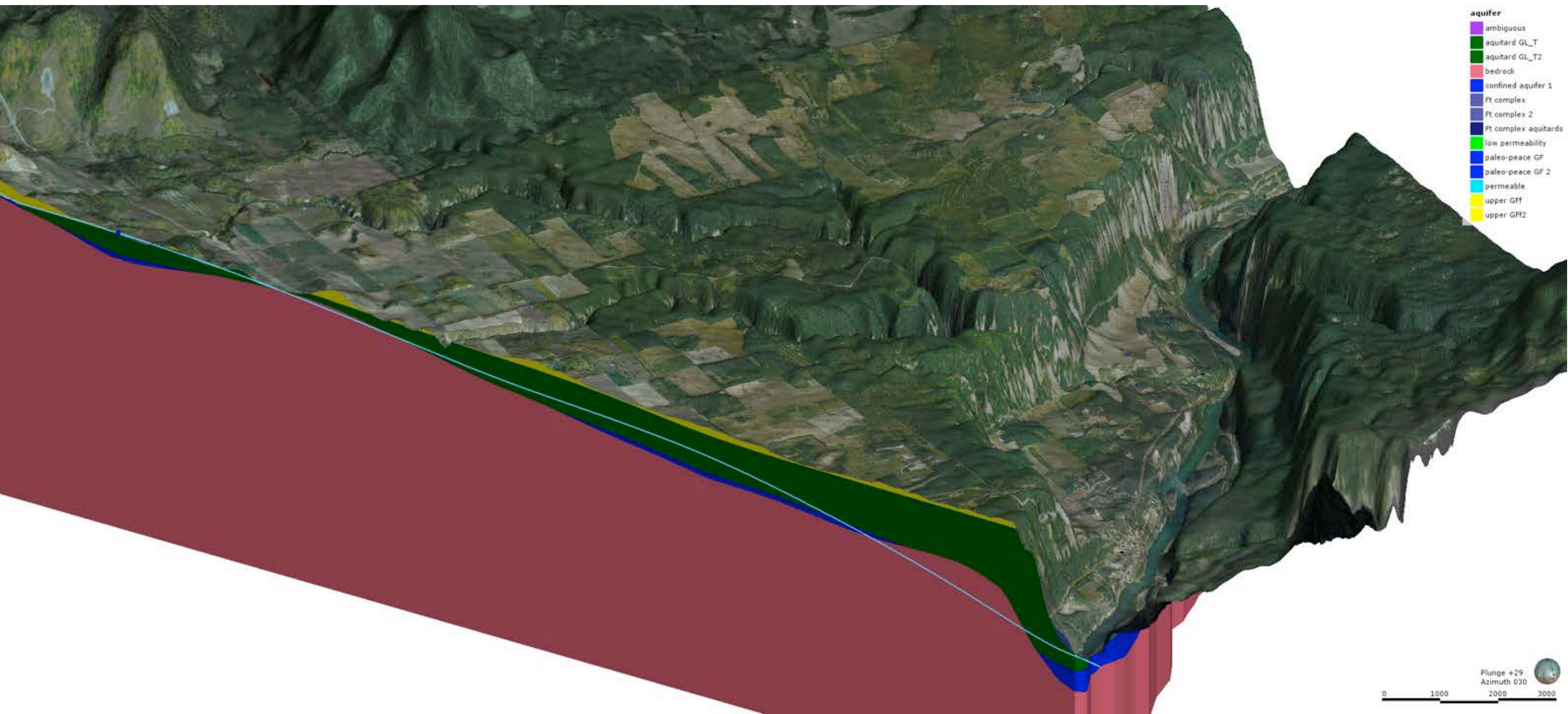






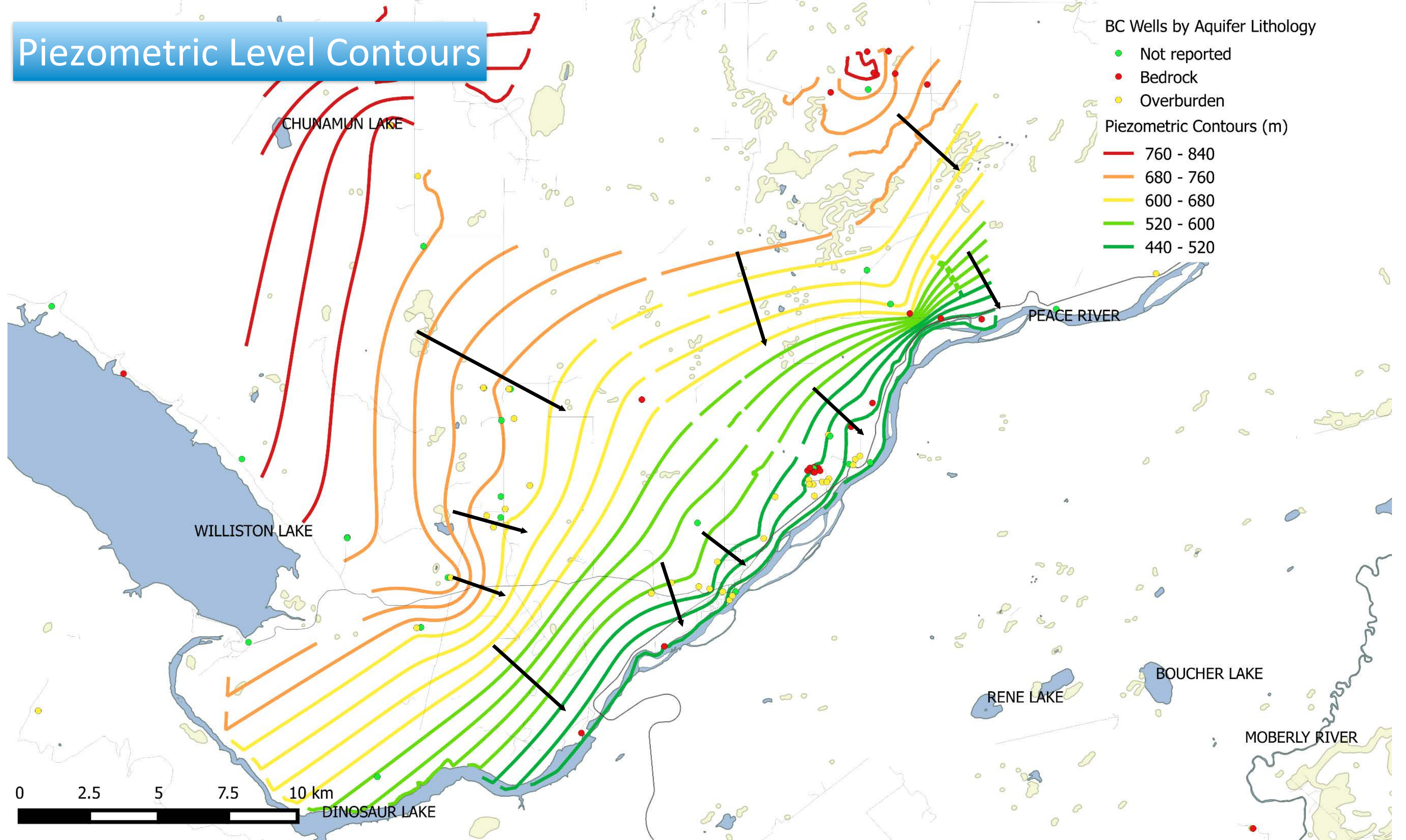








# Piezometric Level Contours





# Sand & Gravel Aquifer Thickness

BC Wells by Aquifer Lithology

- Not reported
- Bedrock
- Overburden

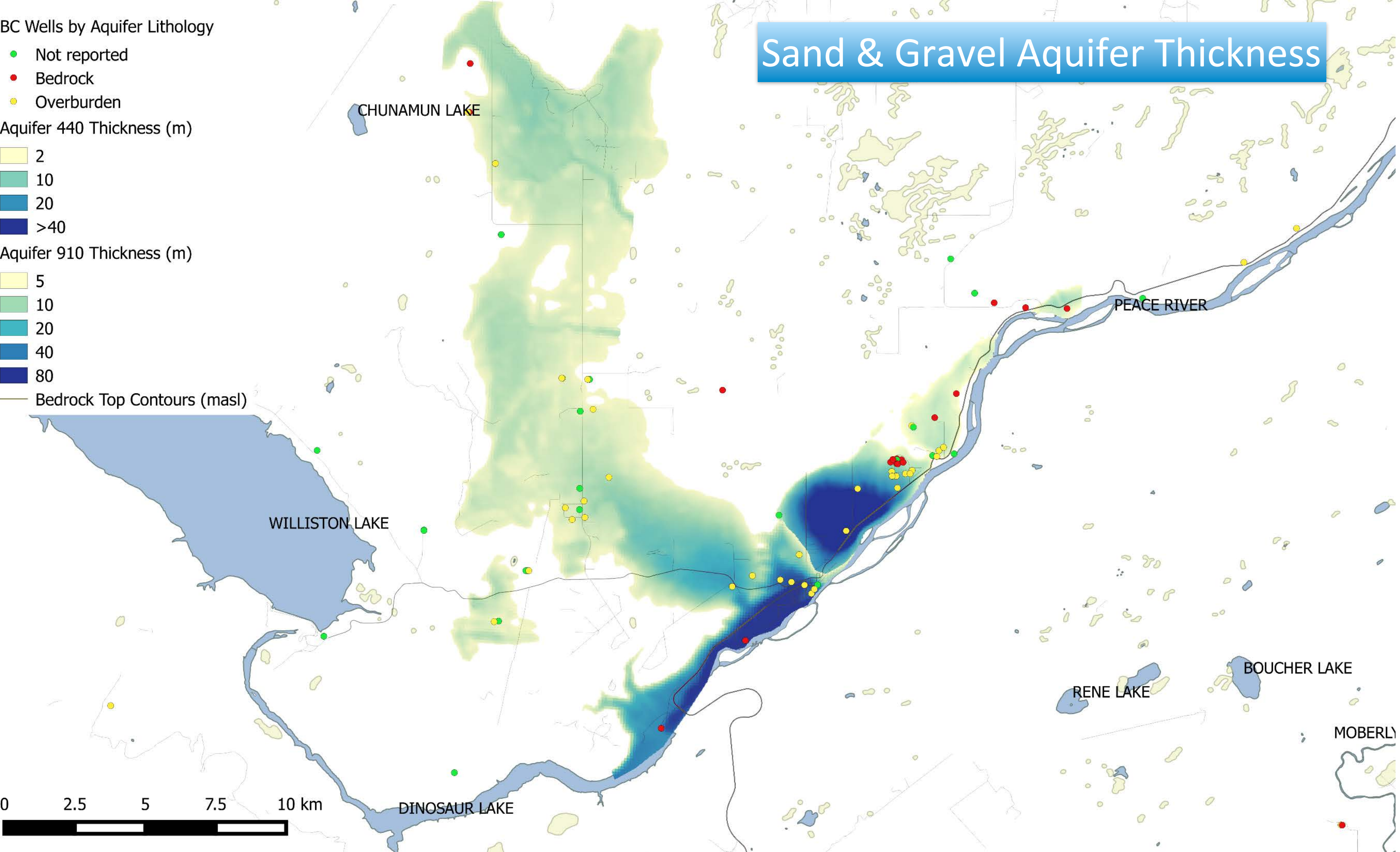
Aquifer 440 Thickness (m)

- 2
- 10
- 20
- >40

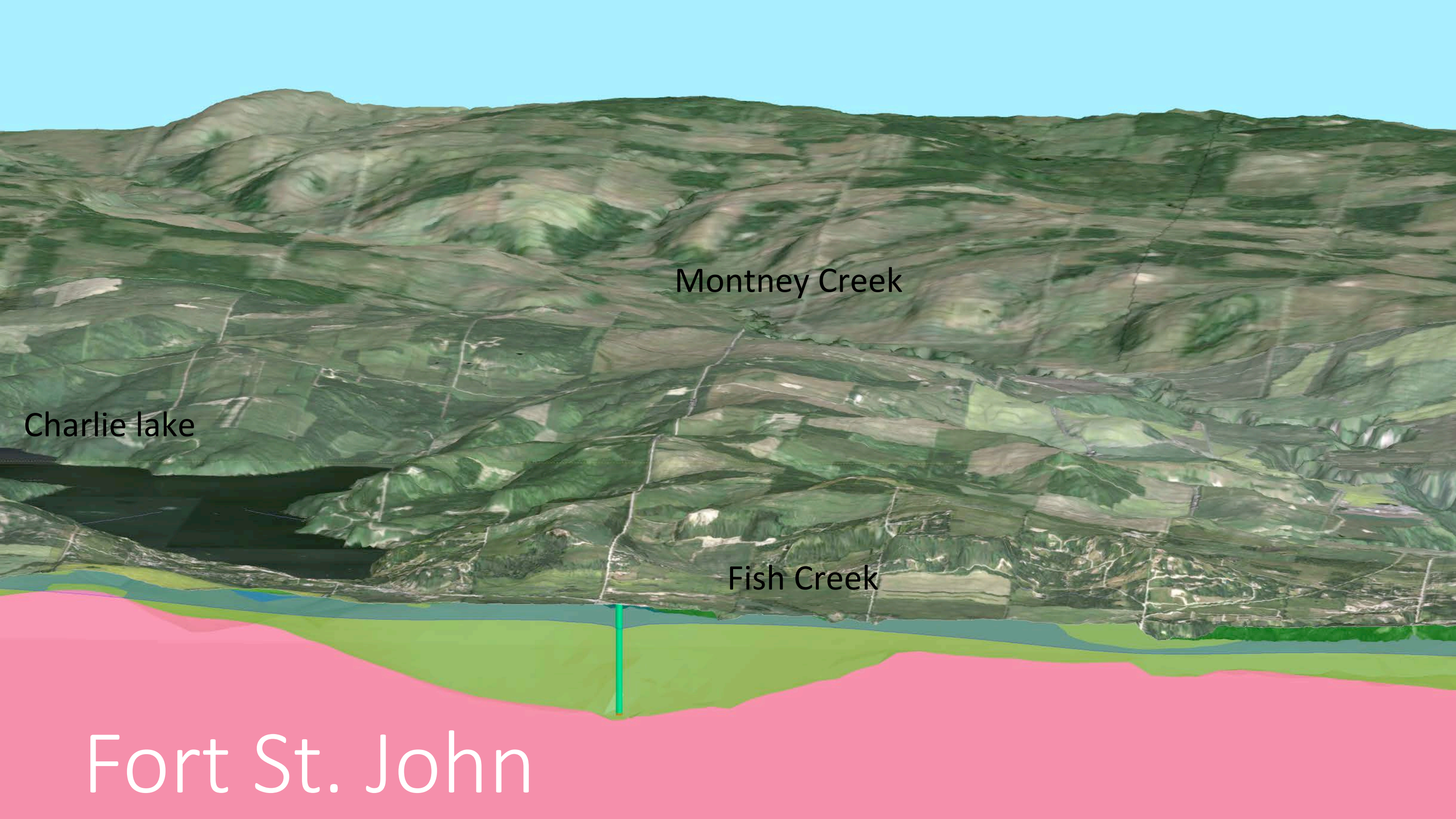
Aquifer 910 Thickness (m)

- 5
- 10
- 20
- 40
- 80

Bedrock Top Contours (masl)







Charlie lake

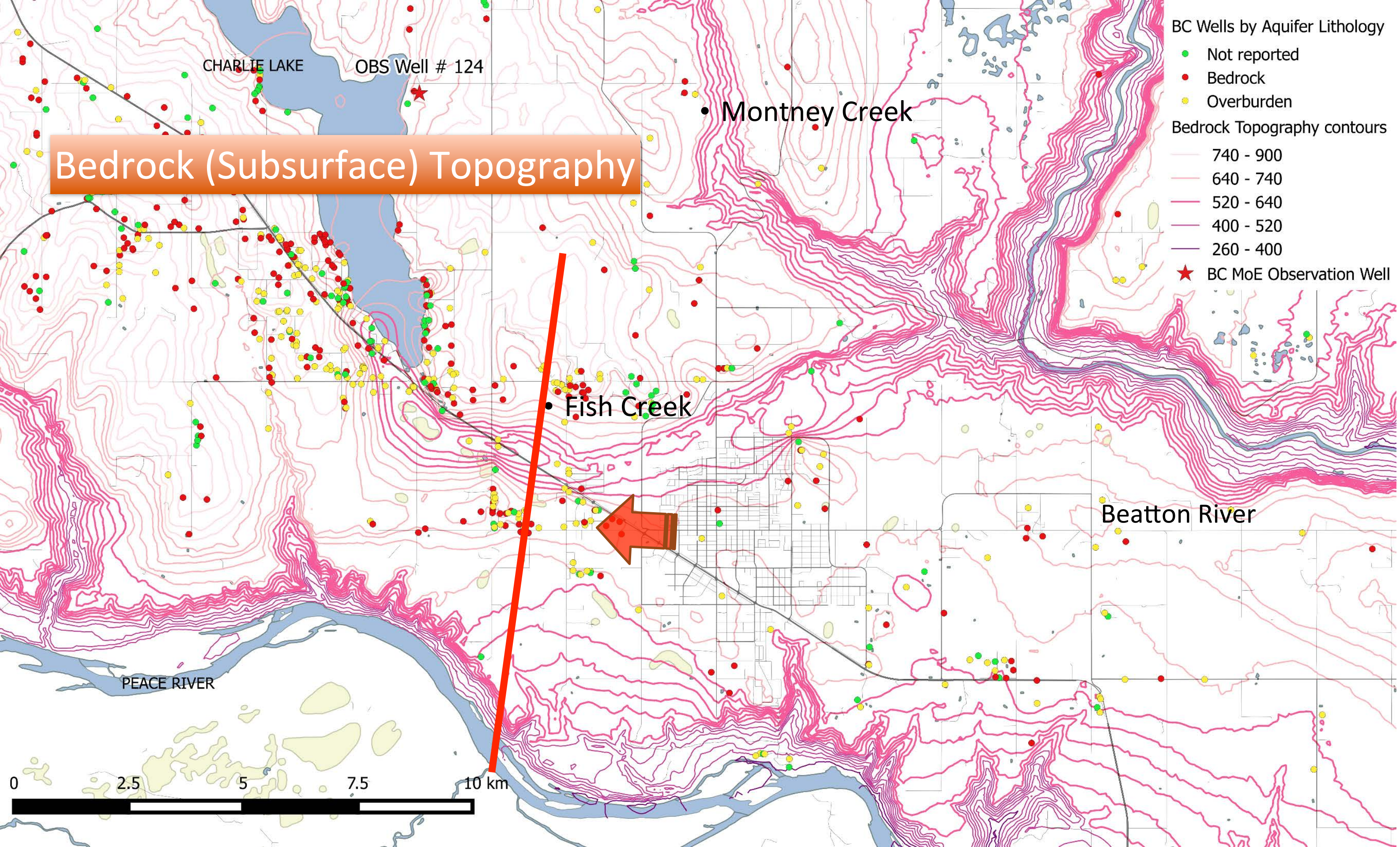
Montney Creek

Fish Creek

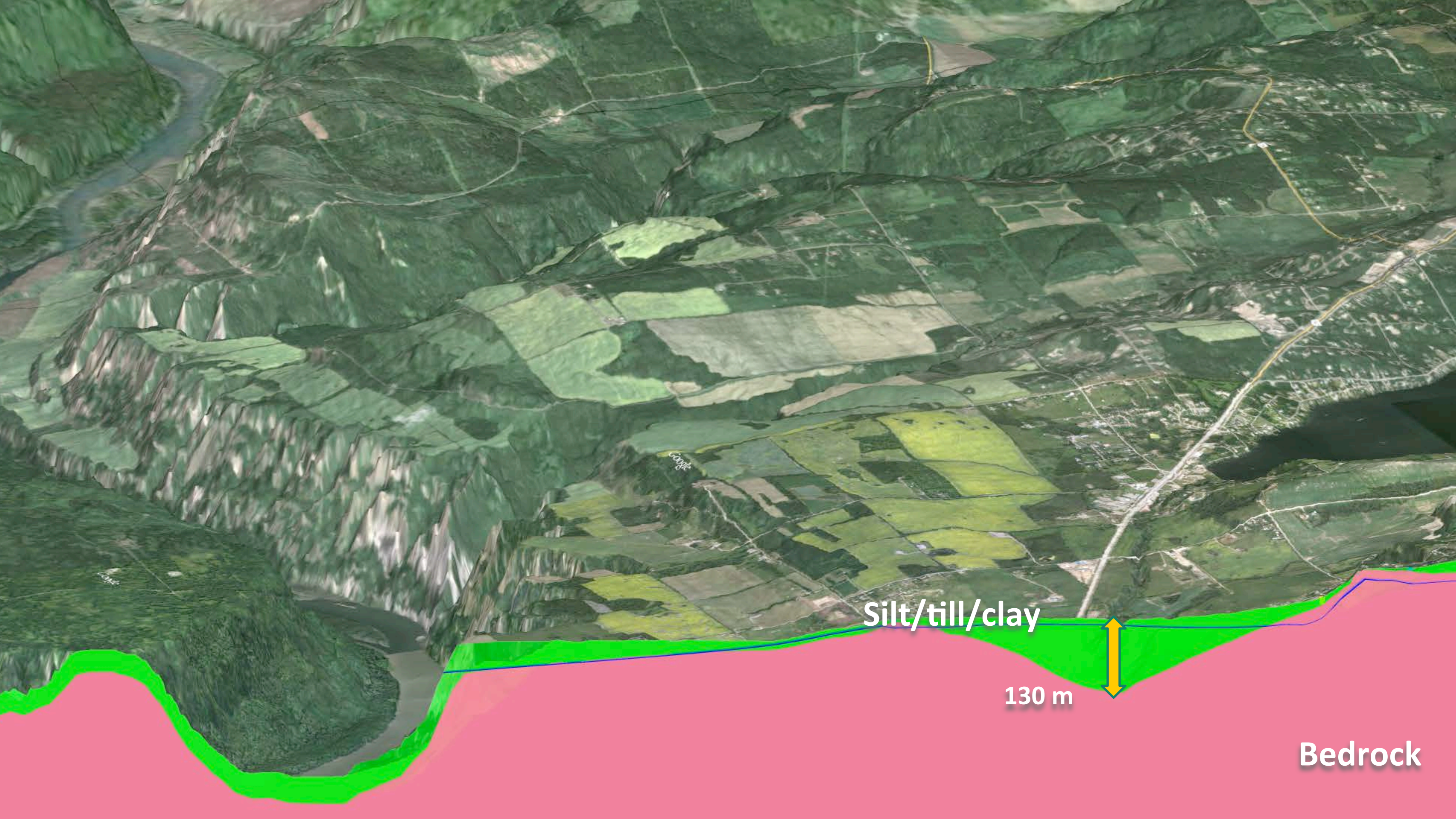
Fort St. John



# Bedrock (Subsurface) Topography







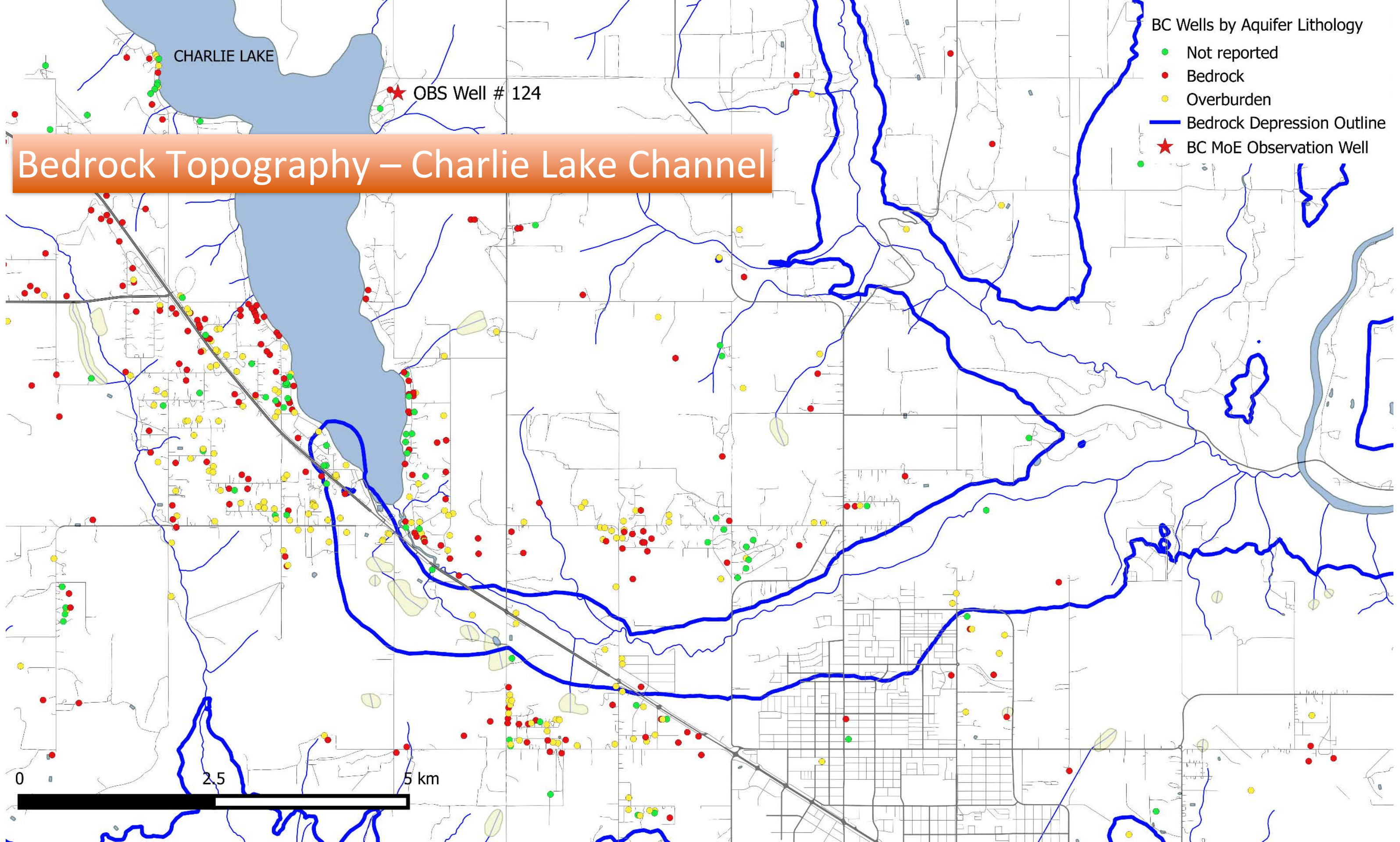
Silt/till/clay

130 m

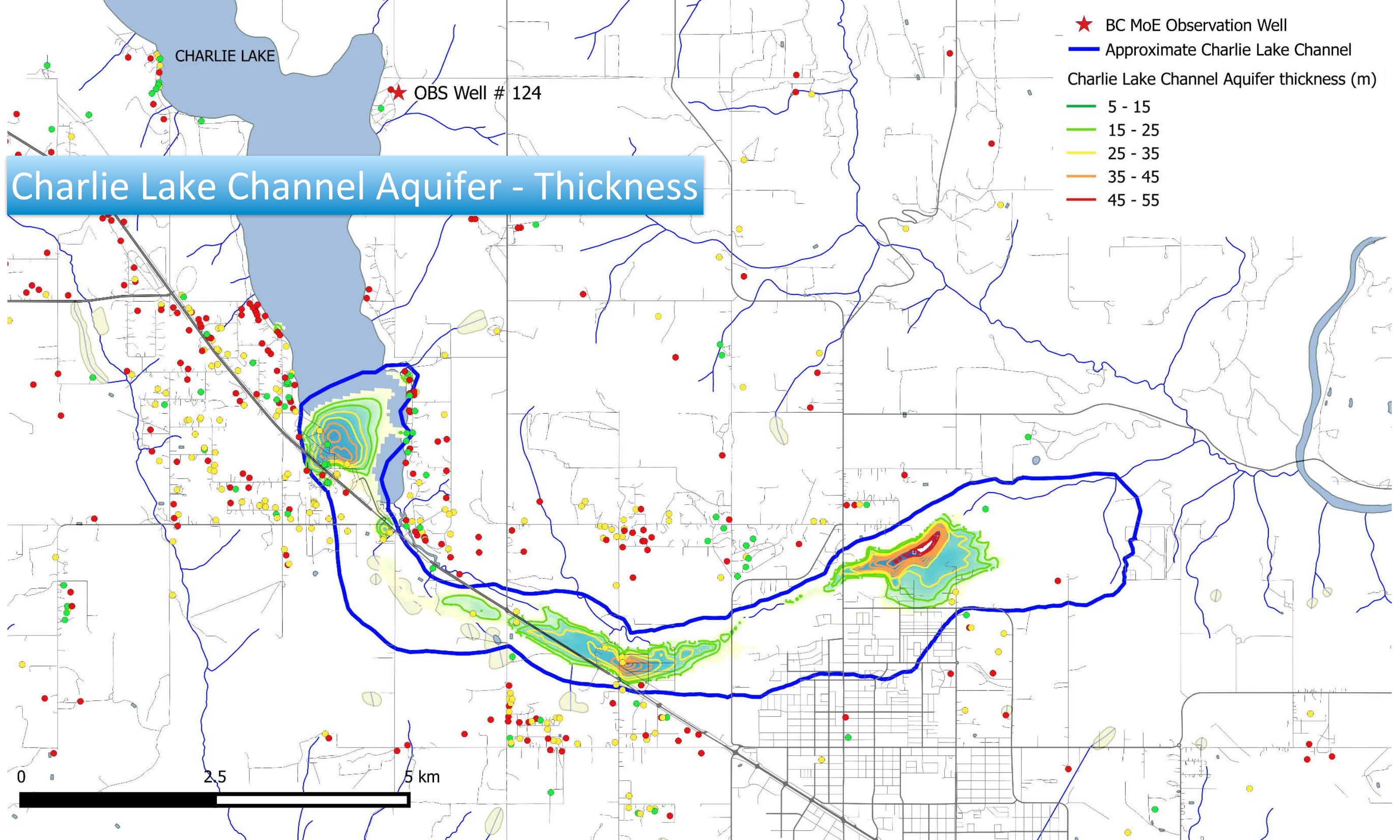
Bedrock



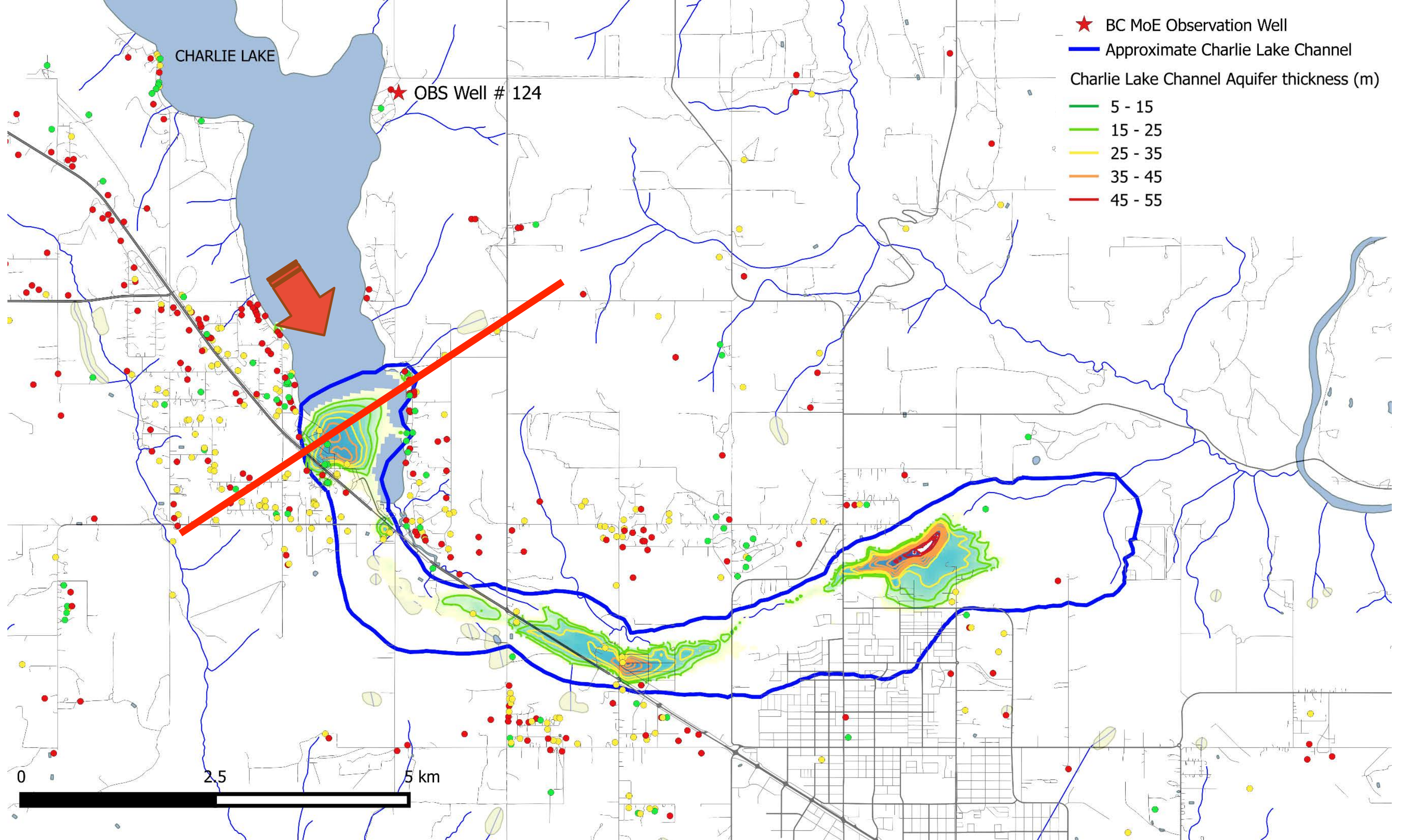
# Bedrock Topography – Charlie Lake Channel



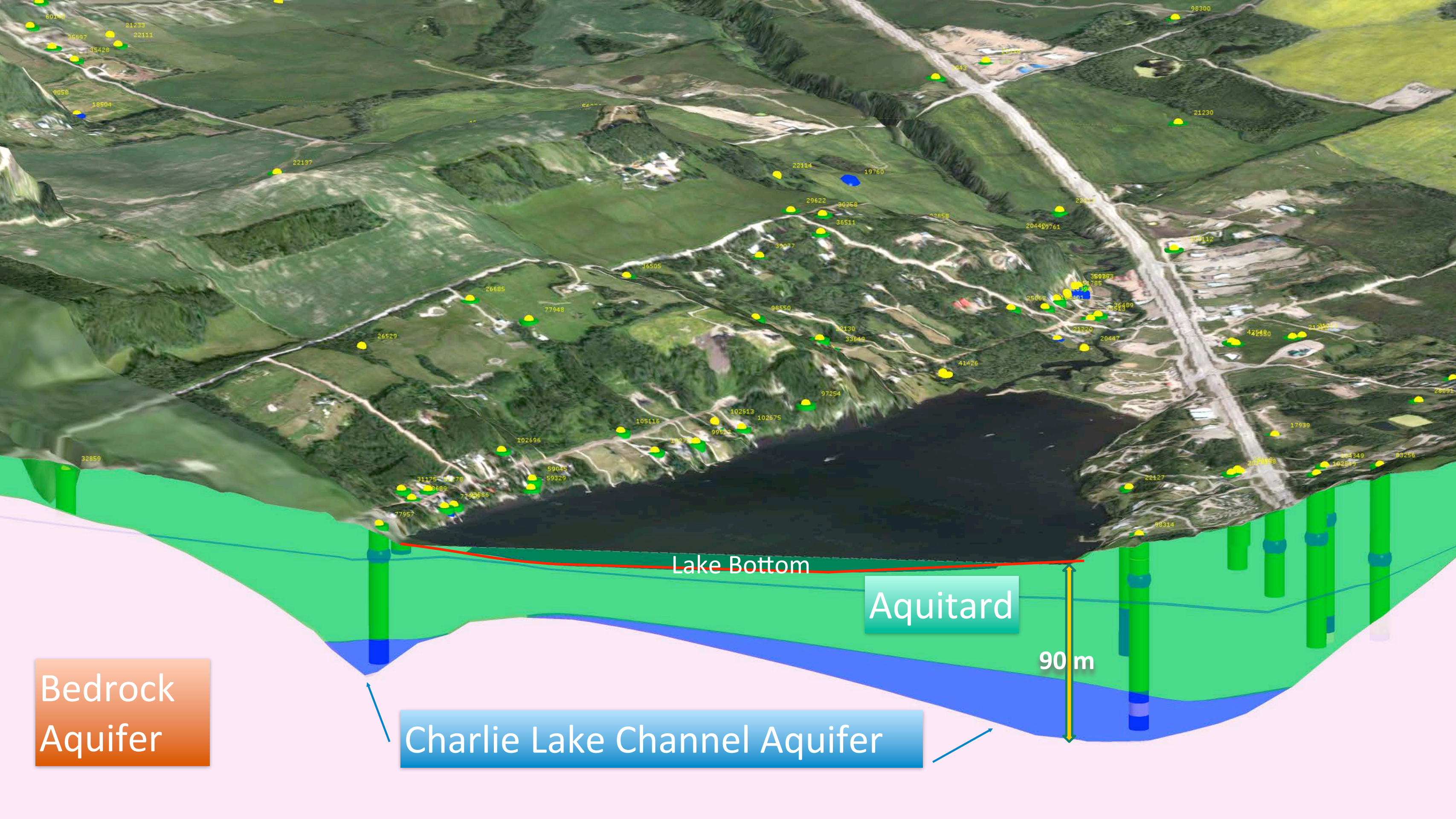












Bedrock  
Aquifer

Charlie Lake Channel Aquifer

Lake Bottom

Aquitard

90 m



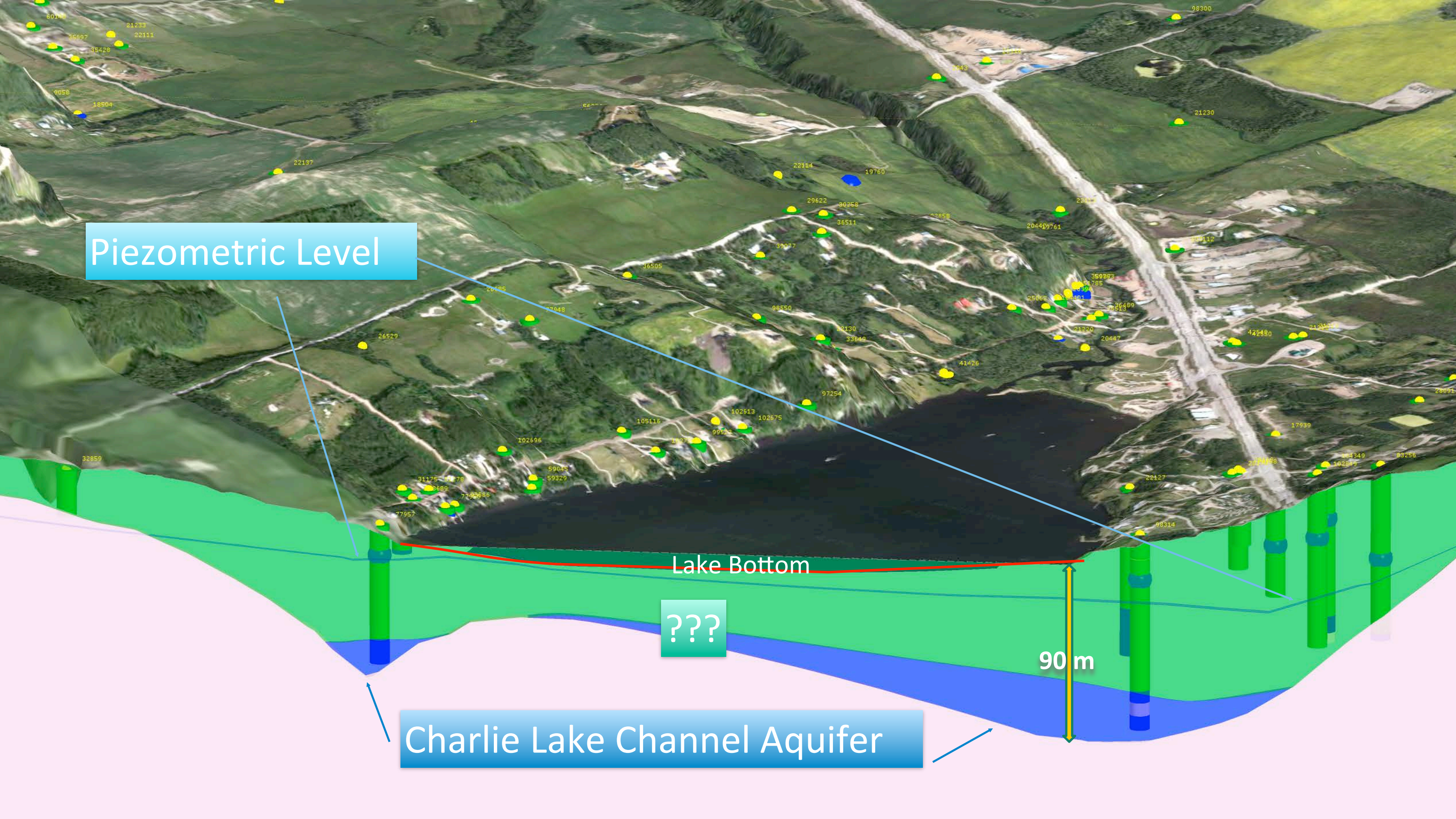
Piezometric Level

Lake Bottom

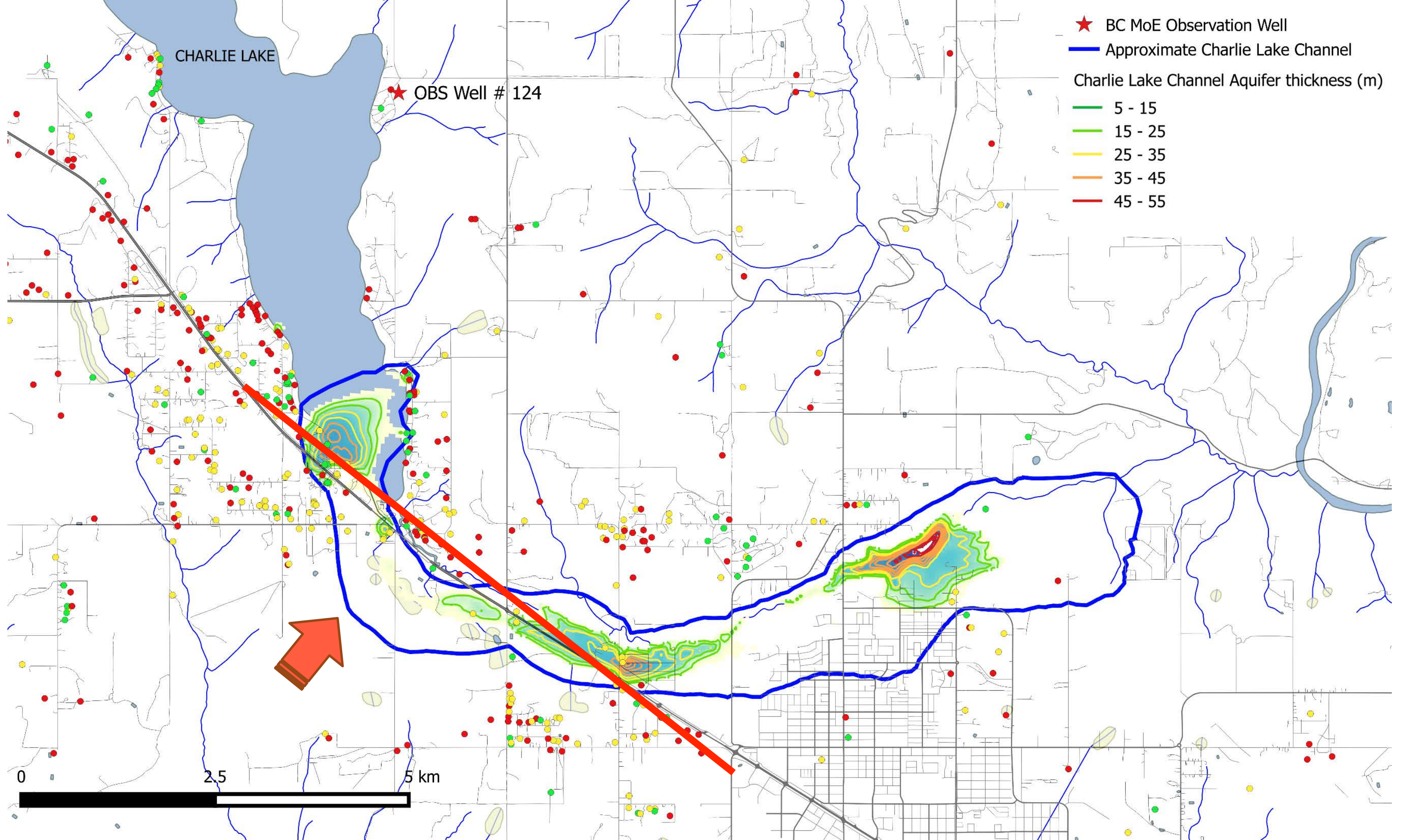
???

90 m

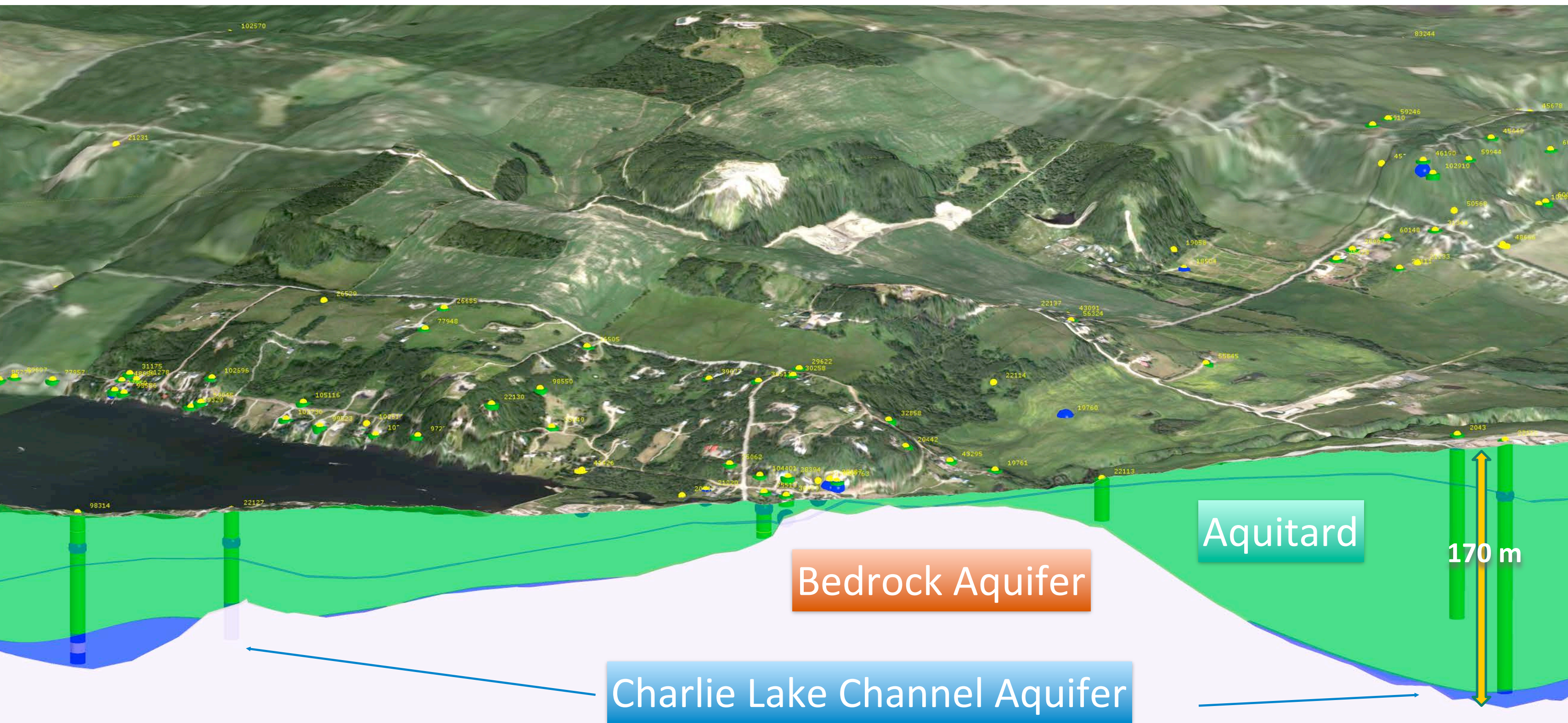
Charlie Lake Channel Aquifer





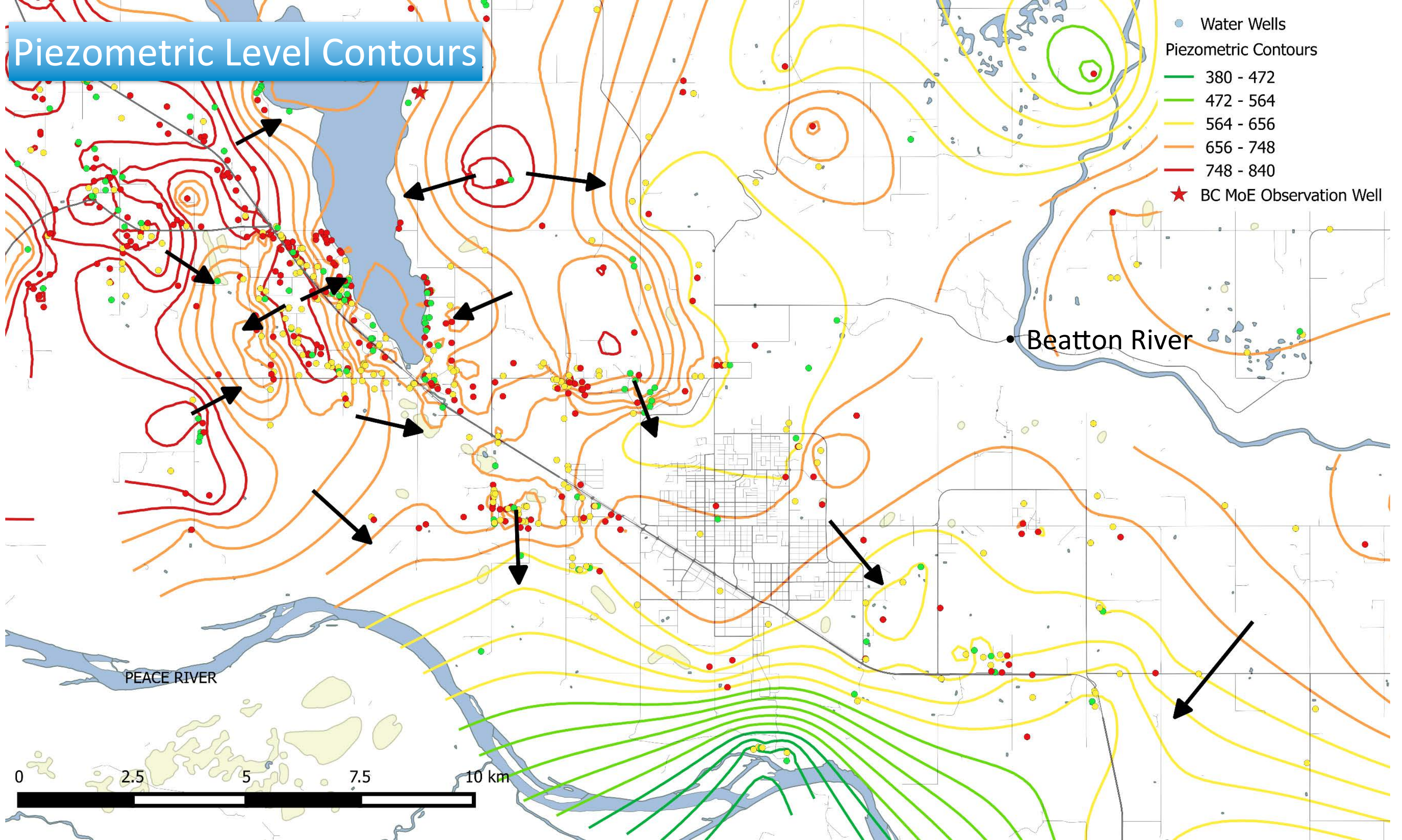




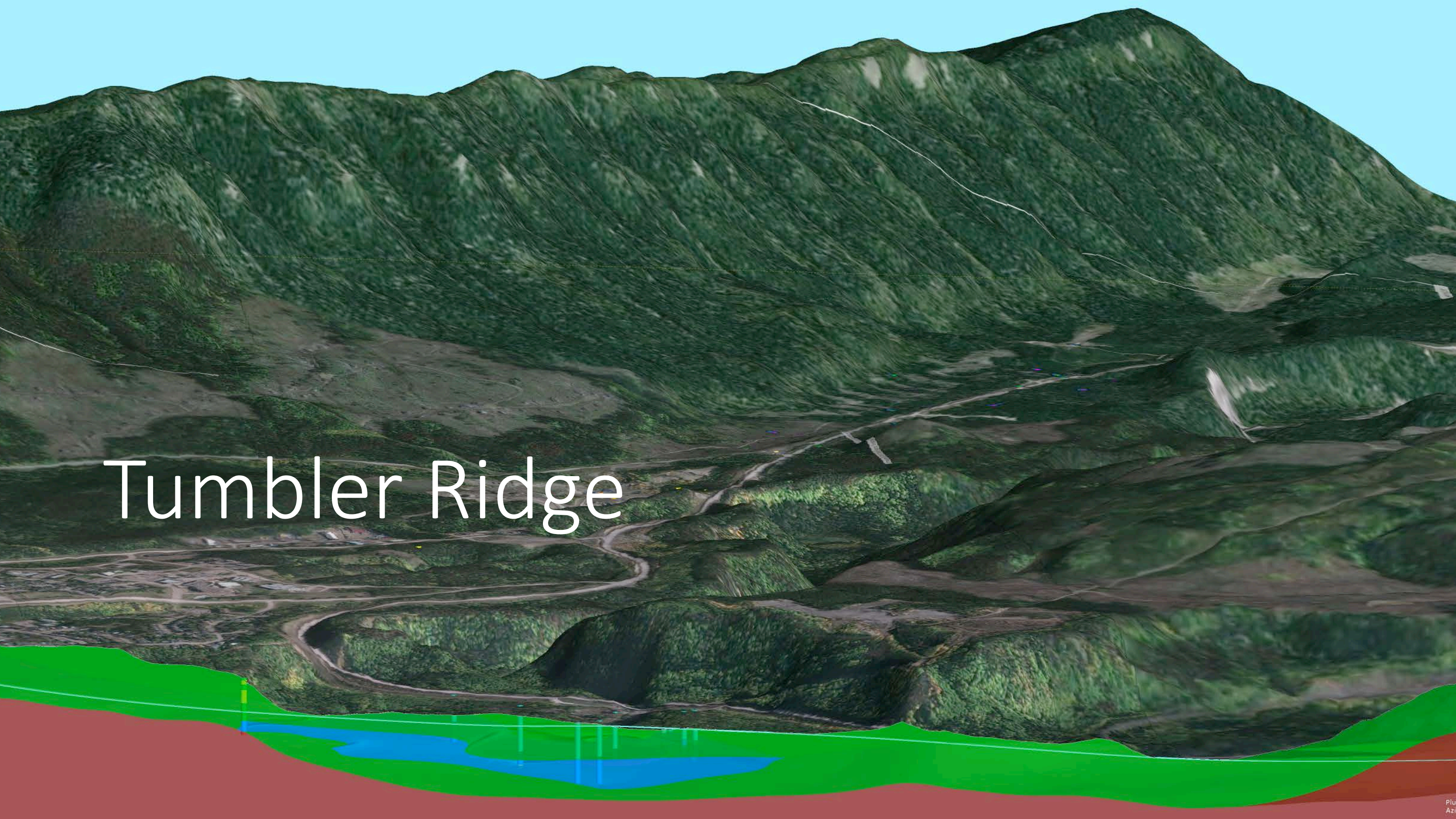




# Piezometric Level Contours

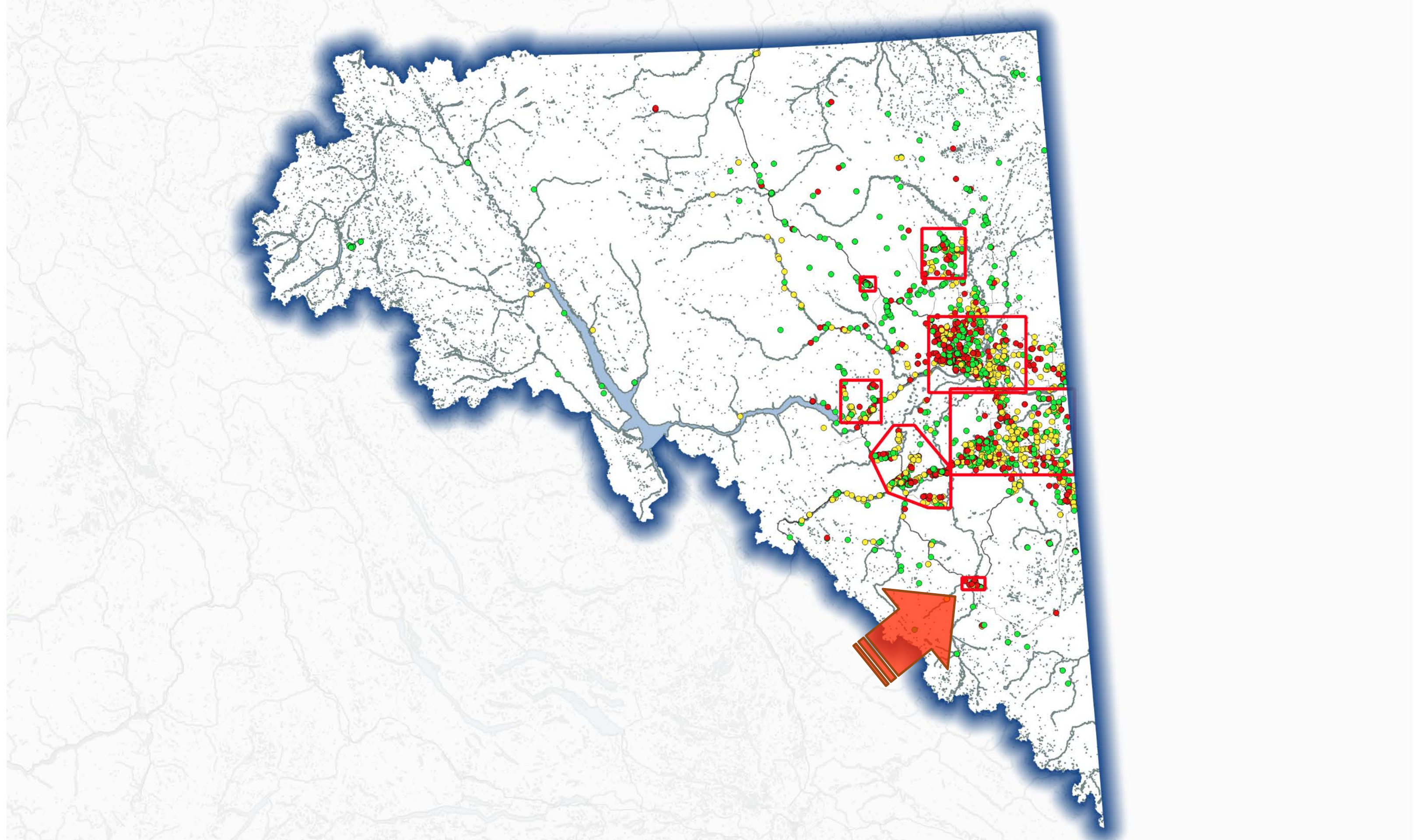






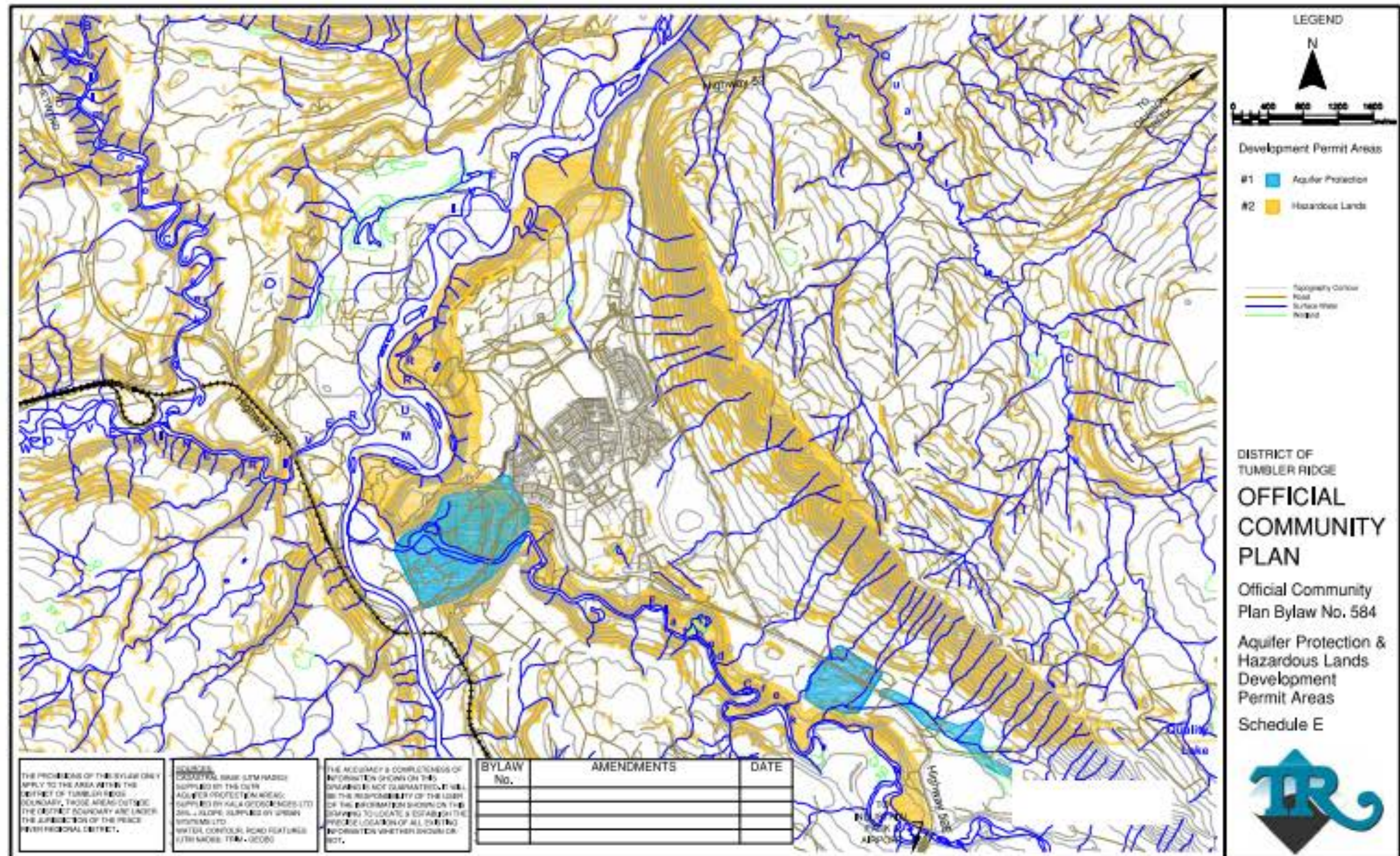
# Tumbler Ridge



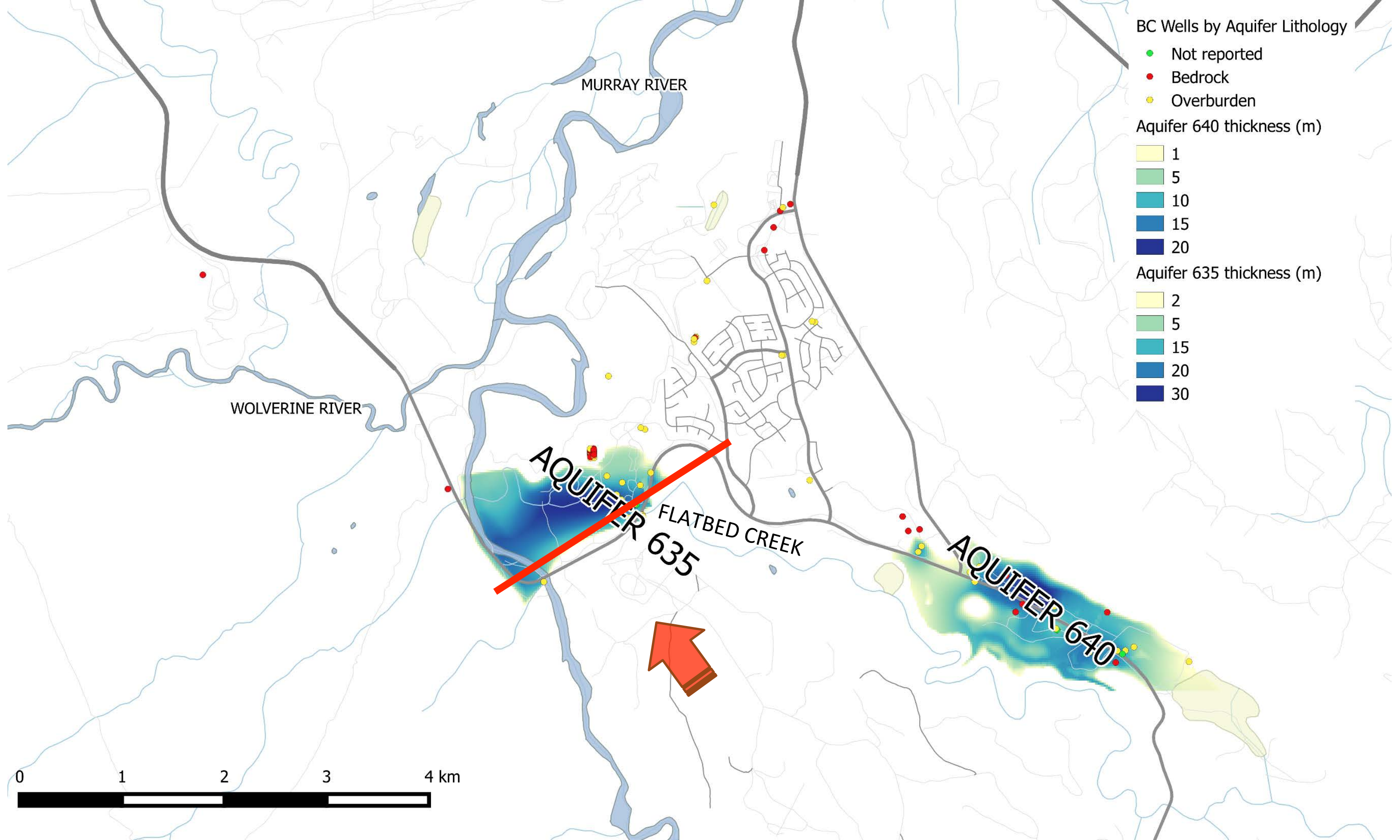




# Tumbler Ridge Aquifer Protection

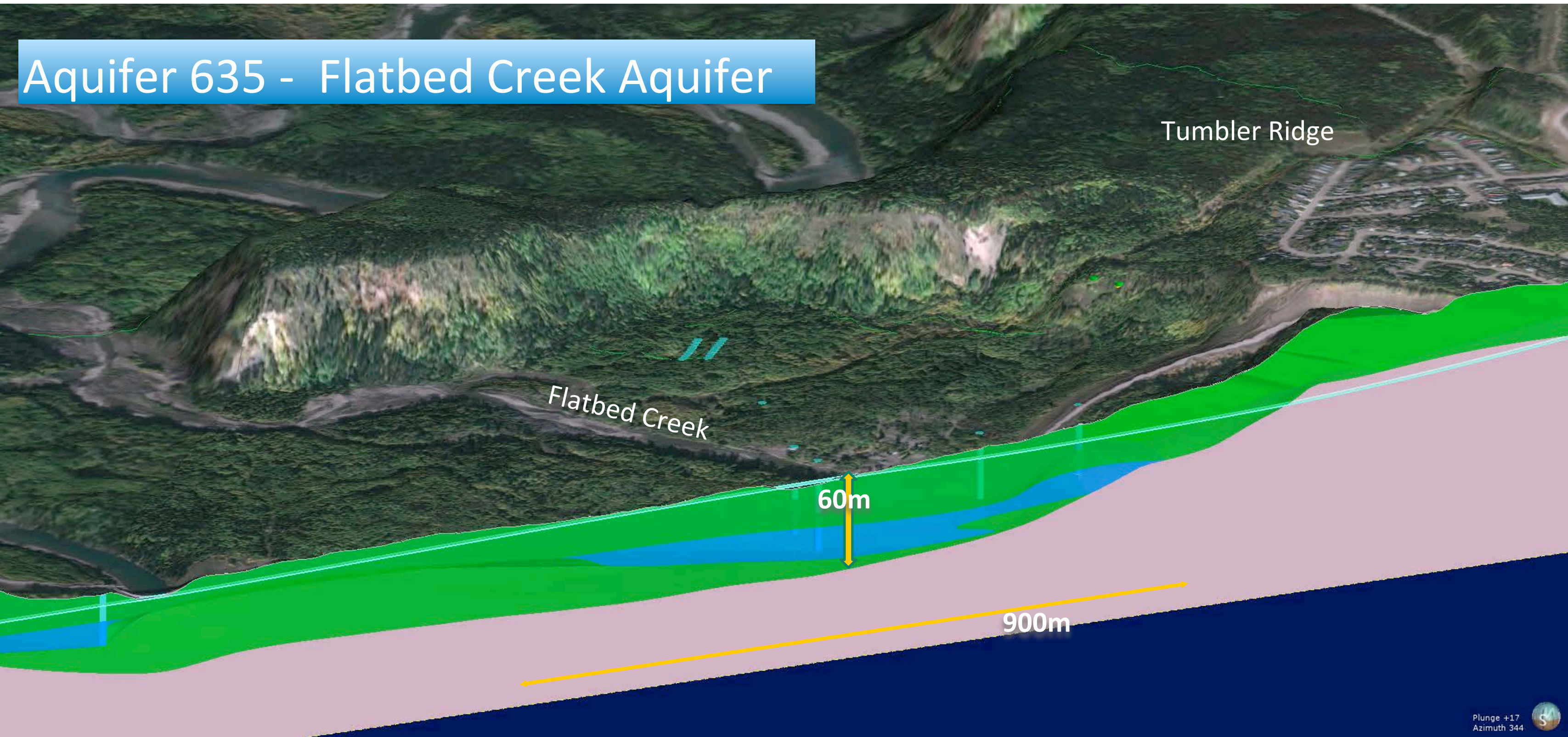




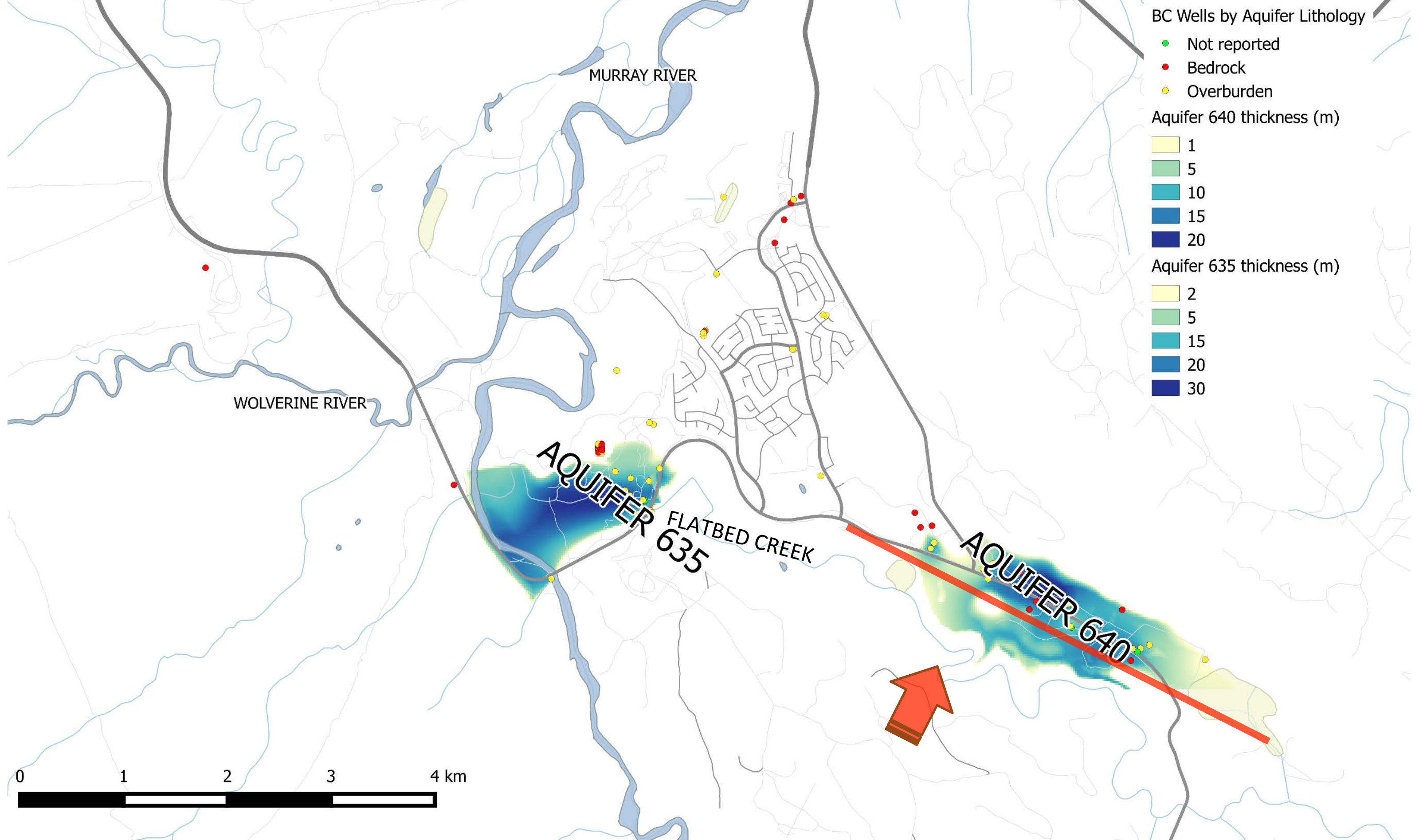




# Aquifer 635 - Flatbed Creek Aquifer

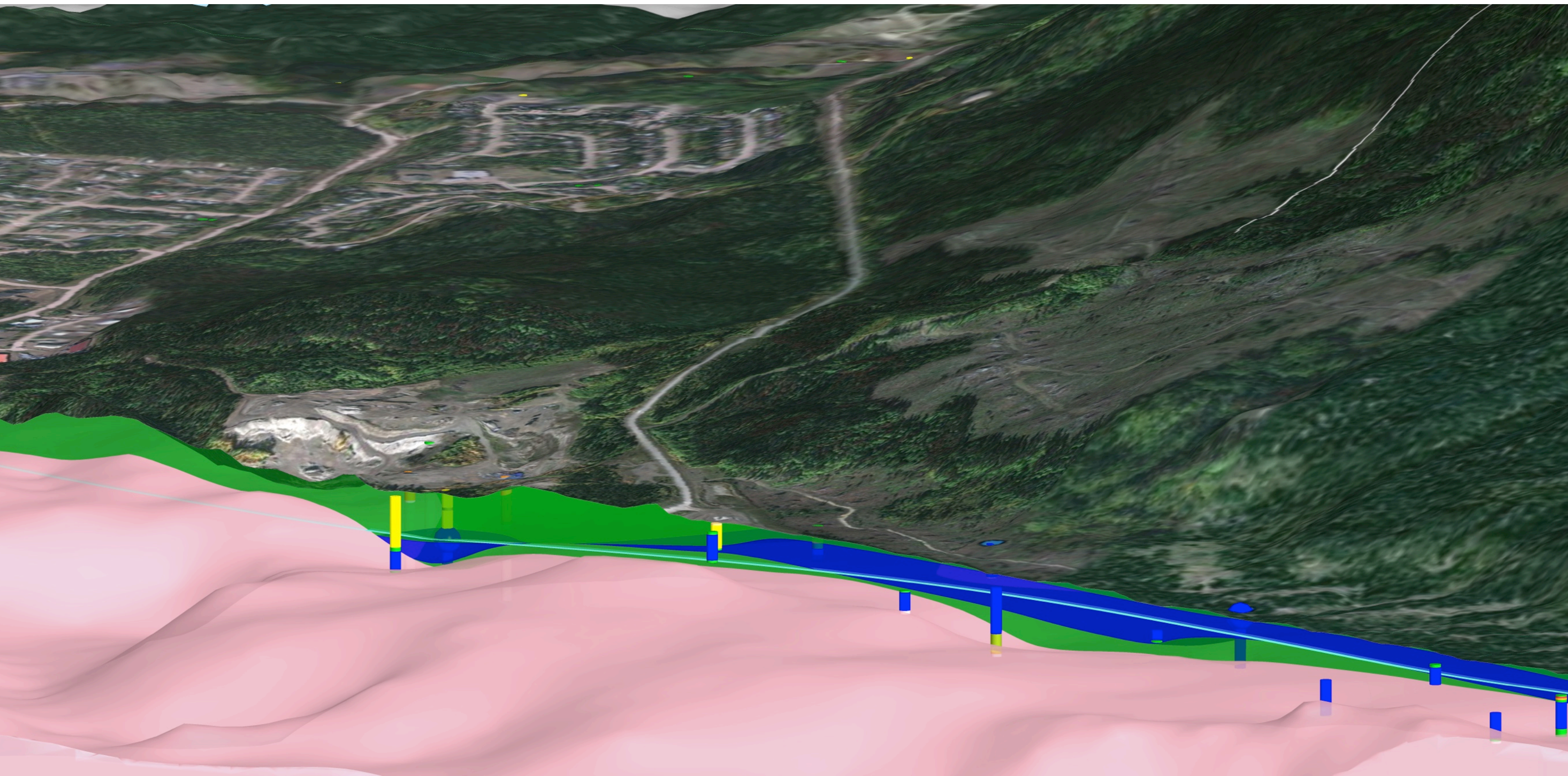






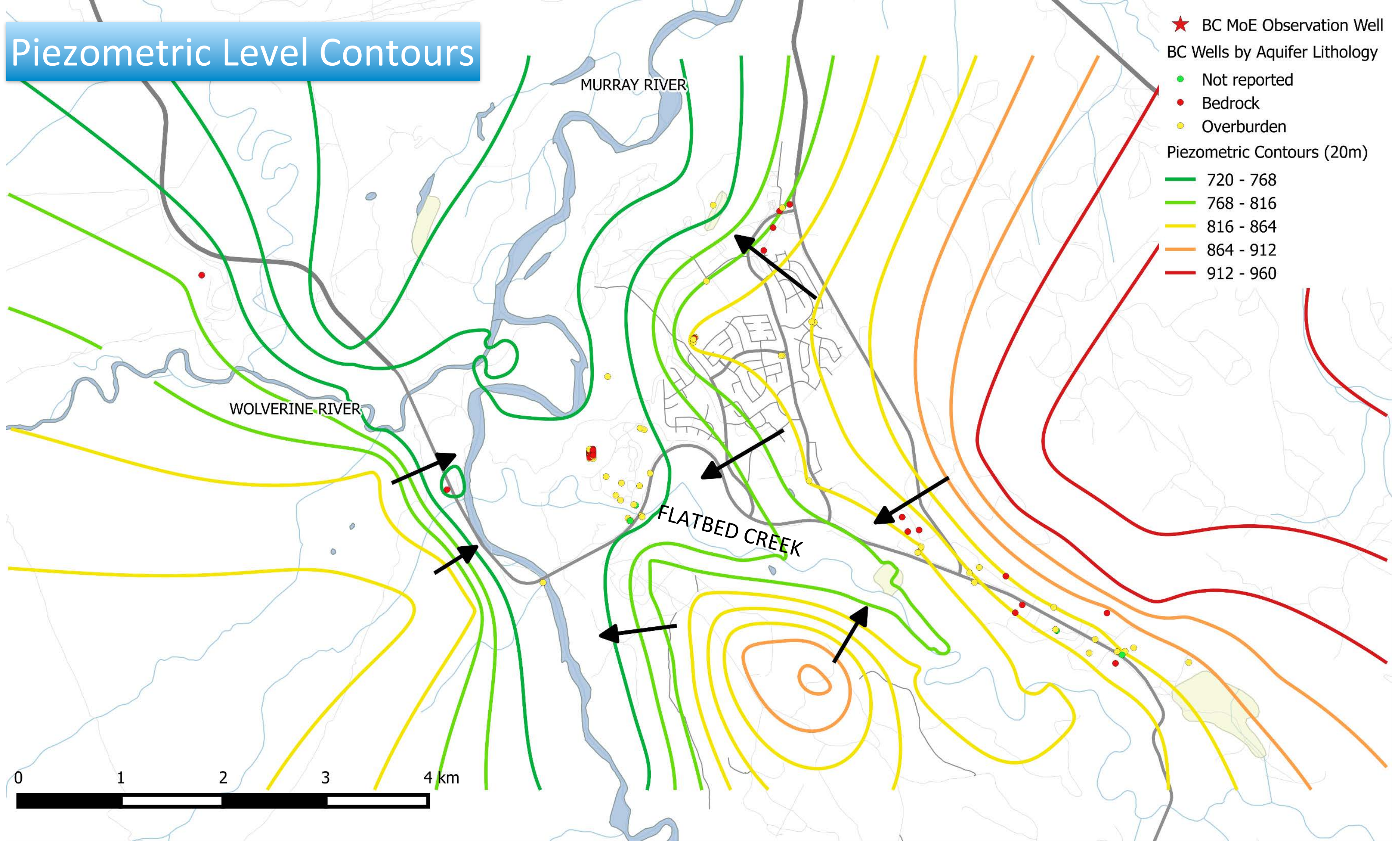


# Aquifer 640 - Tumbler Ridge Aquifer





# Piezometric Level Contours





# Work in progress

- South-Peace / Lower Kiskatinaw / Groundbirch in partnership with FLNRO/MOE/SFU
- Mapping of bedrock aquifers



Thank You