

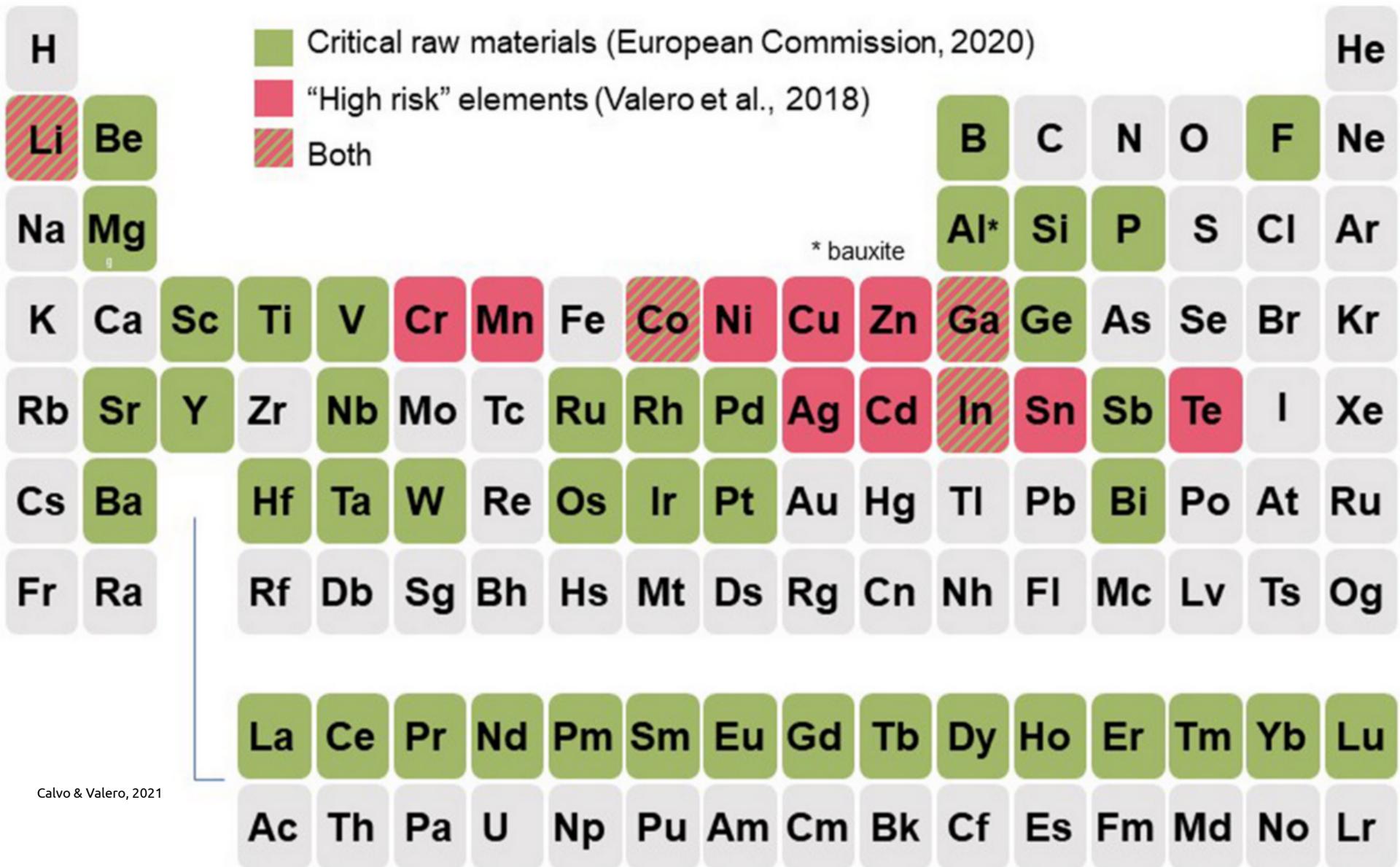
# Open Source GIS and Mining: a roadmap

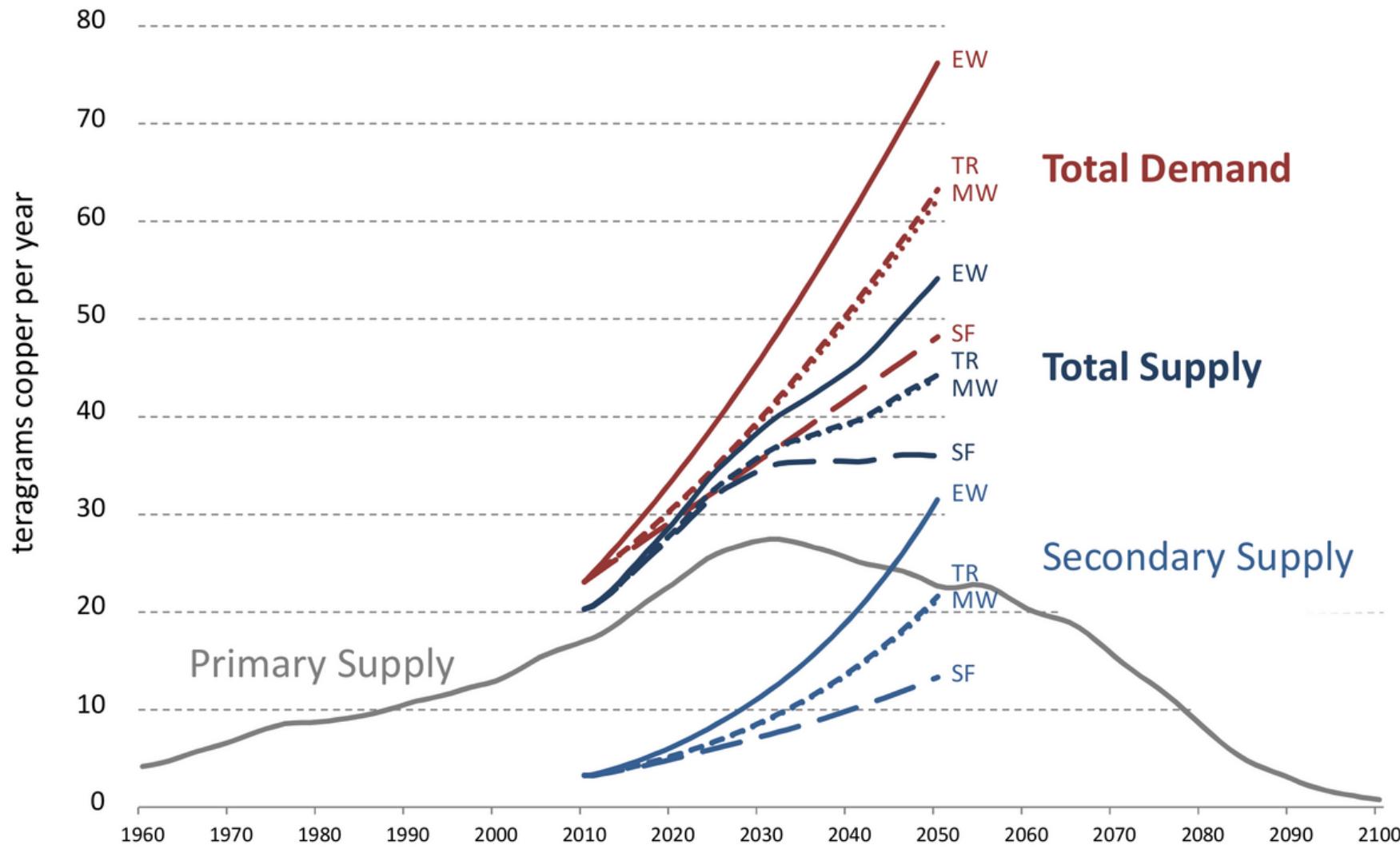
Evren Pakyuz-Charrier  
[evren@oslandia.com](mailto:evren@oslandia.com)



# Demand



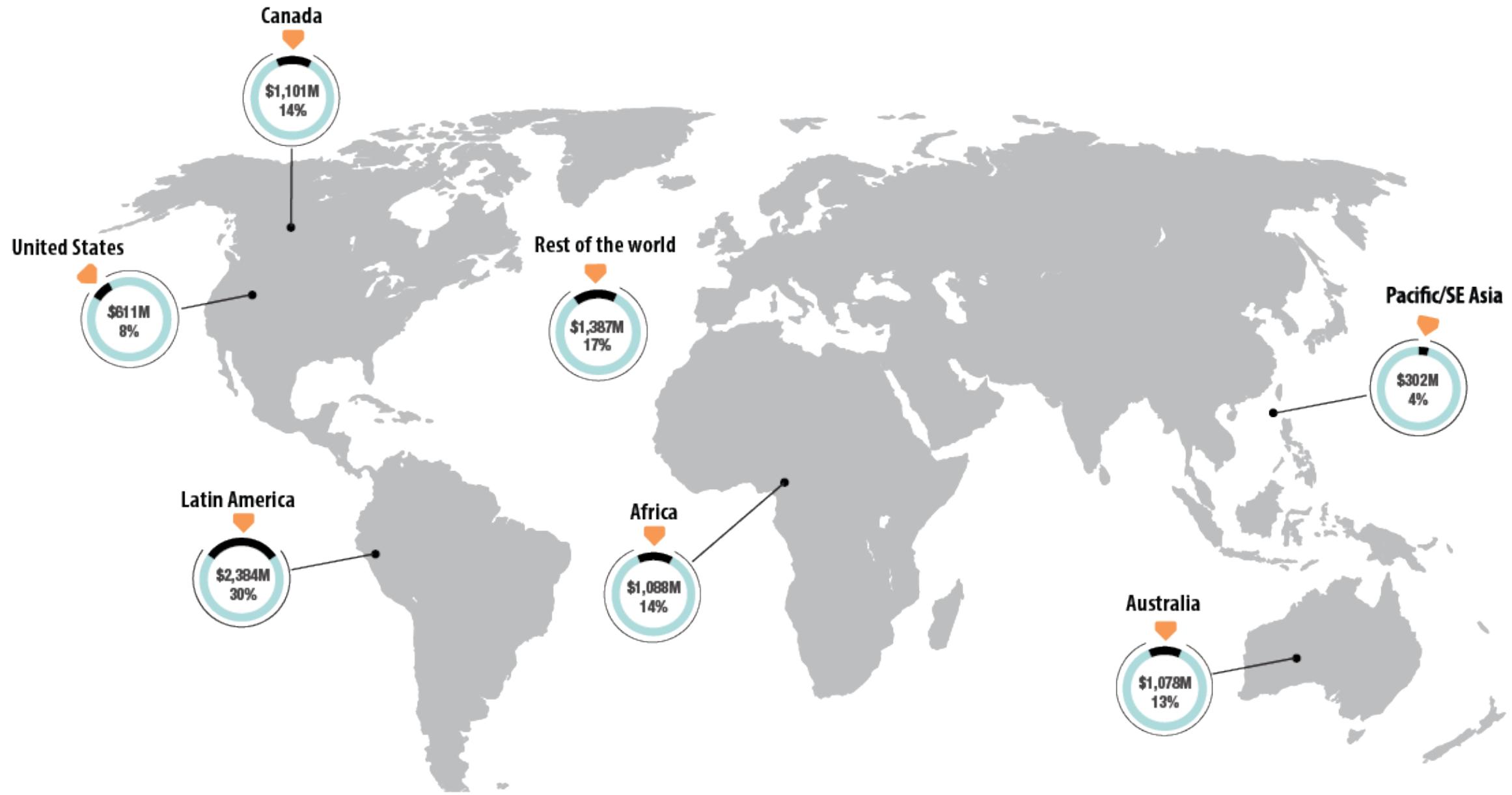


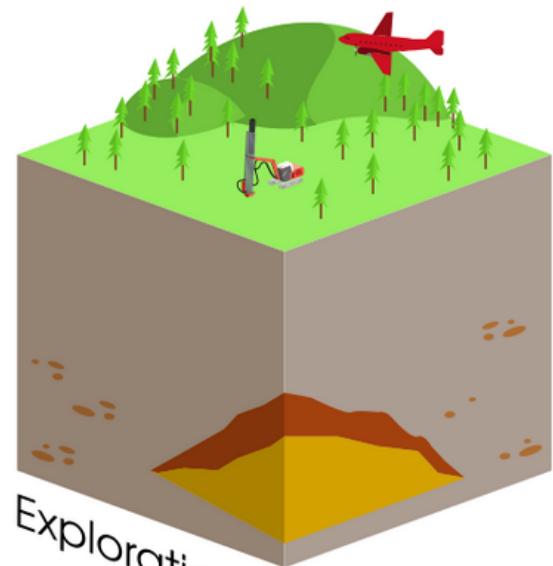


Elshkaki, 2018

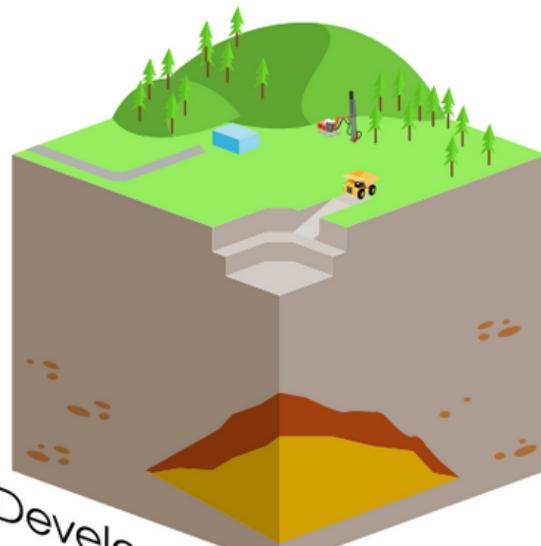
# Investment



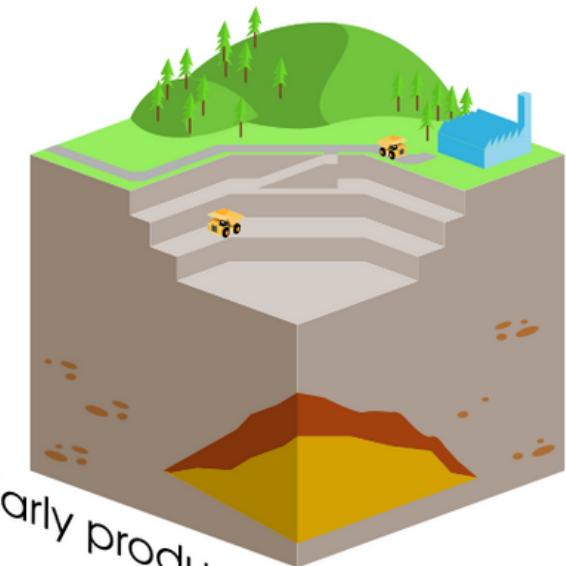




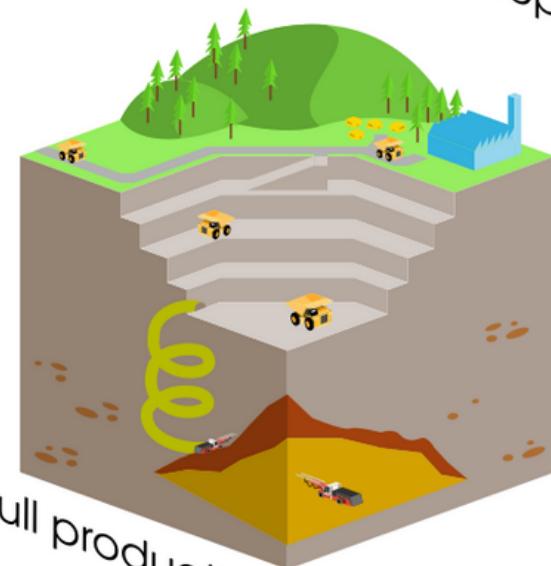
Exploration



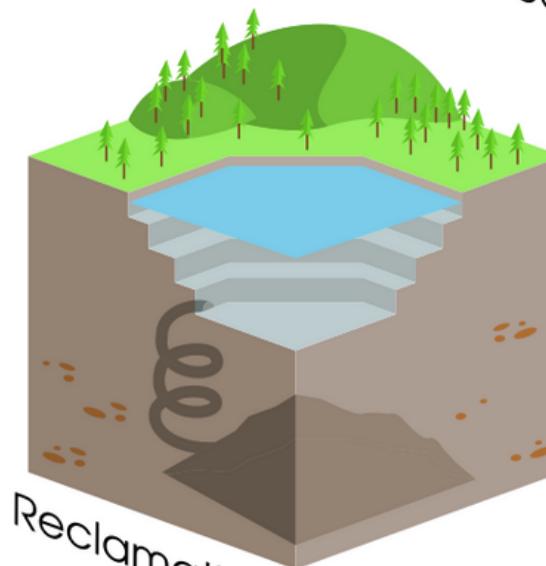
Development



Early production



Full production

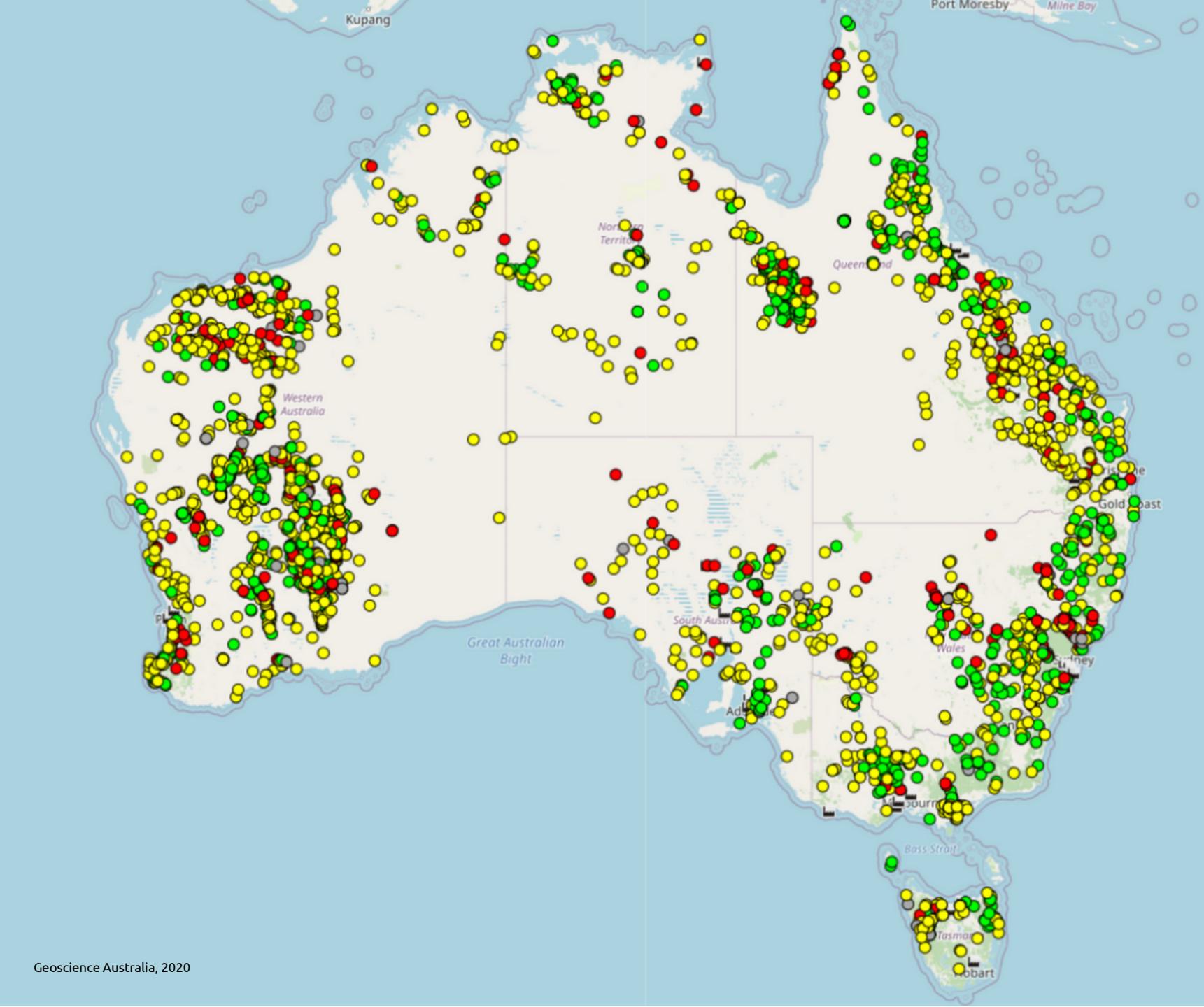


Reclamation



# Location





Geoscience Australia, 2020





#### Commodities

Ag..... Silver  
Al..... Alumina  
Au..... Gold  
Cu..... Copper  
Dmd..... Diamond  
Fe..... Iron  
Gr..... Graphite  
Grt..... Garnet  
K..... Potassium  
Kln..... Kaolin  
Li..... Lithium  
LNG..... Liquefied natural gas  
Mag..... Magnetite  
Mn..... Manganese  
Ni..... Nickel  
Pb..... Lead  
Pd..... Palladium  
Pt..... Platinum  
REE..... Rare earth elements  
Ta..... Tantalum  
Ti..... Titanium  
V..... Vanadium  
W..... Tungsten  
Zn..... Zinc  
Zr..... Zirconium

#### Mineral symbols

- ★ Precious mineral Dmd
- ◆ Precious metal Au (or as shown)
- ◆ Steel alloy metal Ni (or as shown)
- Specialty metal Ti-Zr (or as shown)
- ▲ Base metal
- Iron
- Bauxite
- Coal and lignite
- ▼ Uranium
- ▼ Industrial mineral
- ▣ Mineral Processing plant

#### Petroleum symbols

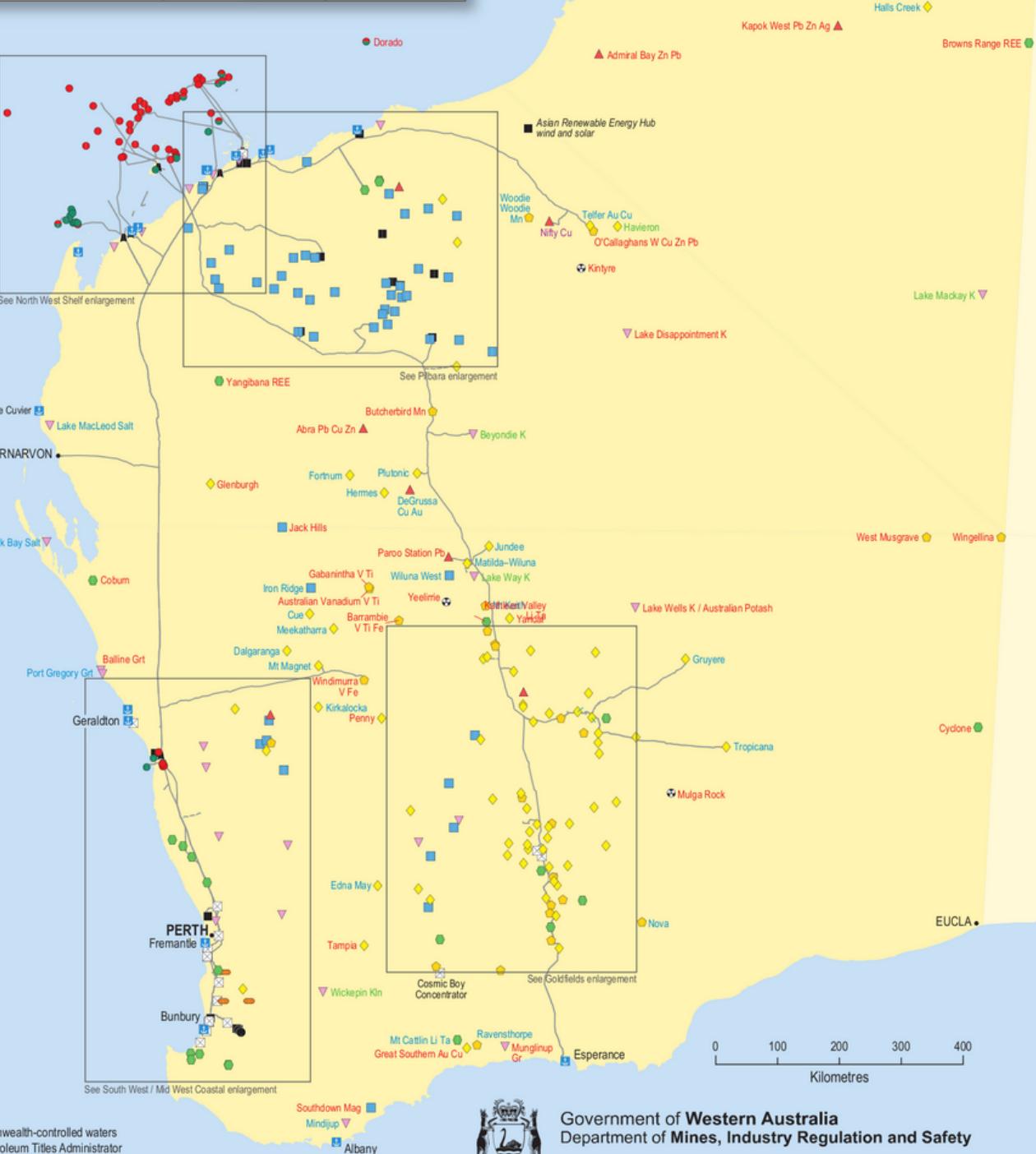
- Gas
- Oil
- Oil and gas
- ▲ Petroleum Processing plant
- Oil / gas pipeline, operating
- - - Oil / gas pipeline, proposed

#### Infrastructure

- Power plant
- Port

#### Infrastructure status

- Operating or under development  
Proposed



Enquiries for latest information for Commonwealth-controlled waters is available from the National Offshore Petroleum Titles Administrator (NOPTA) at <info@nopta.gov.au>



Government of Western Australia  
Department of Mines, Industry Regulation and Safety



# Logistics

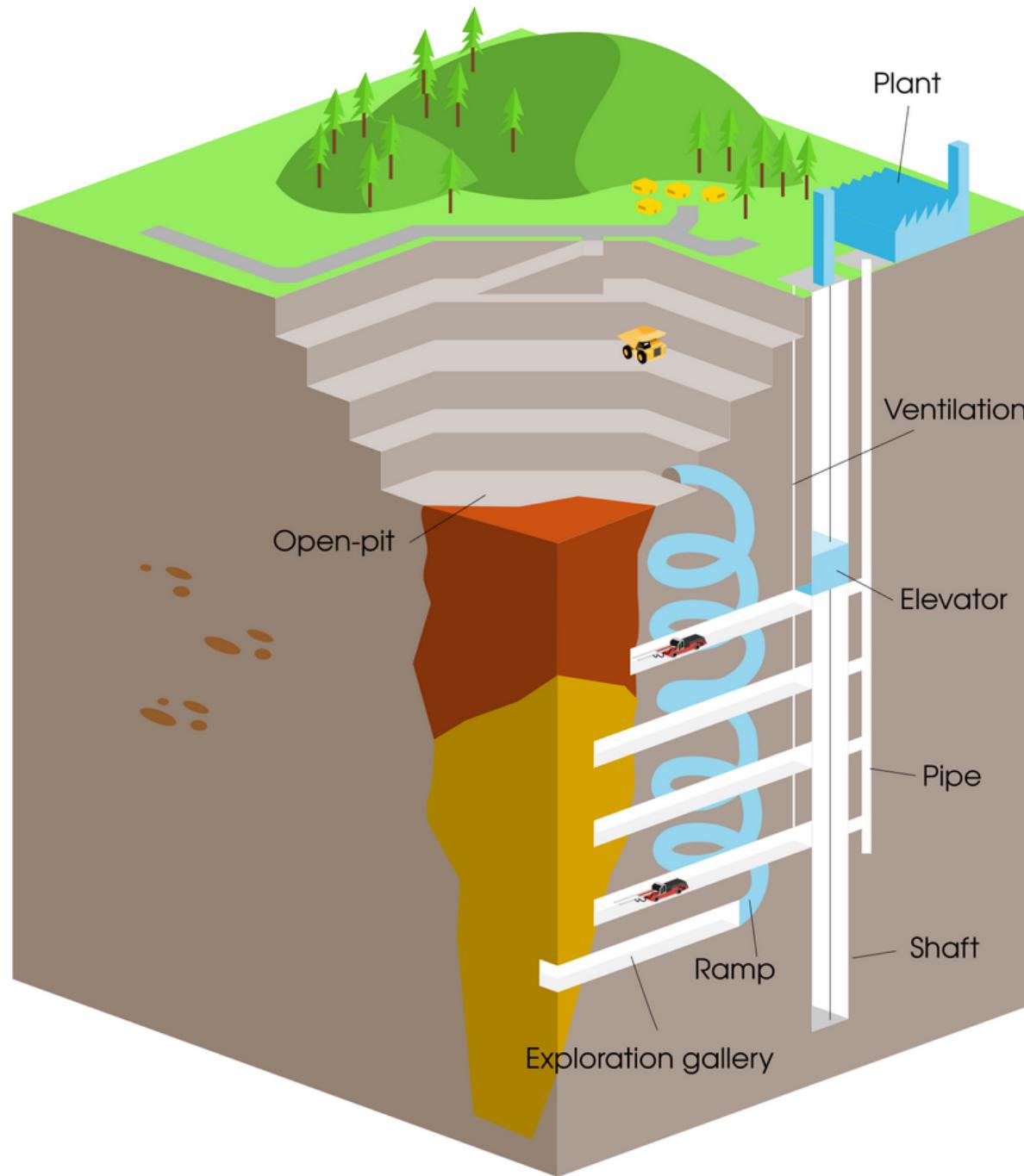




Calistemon







# Infrastructure & Networks



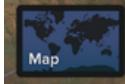
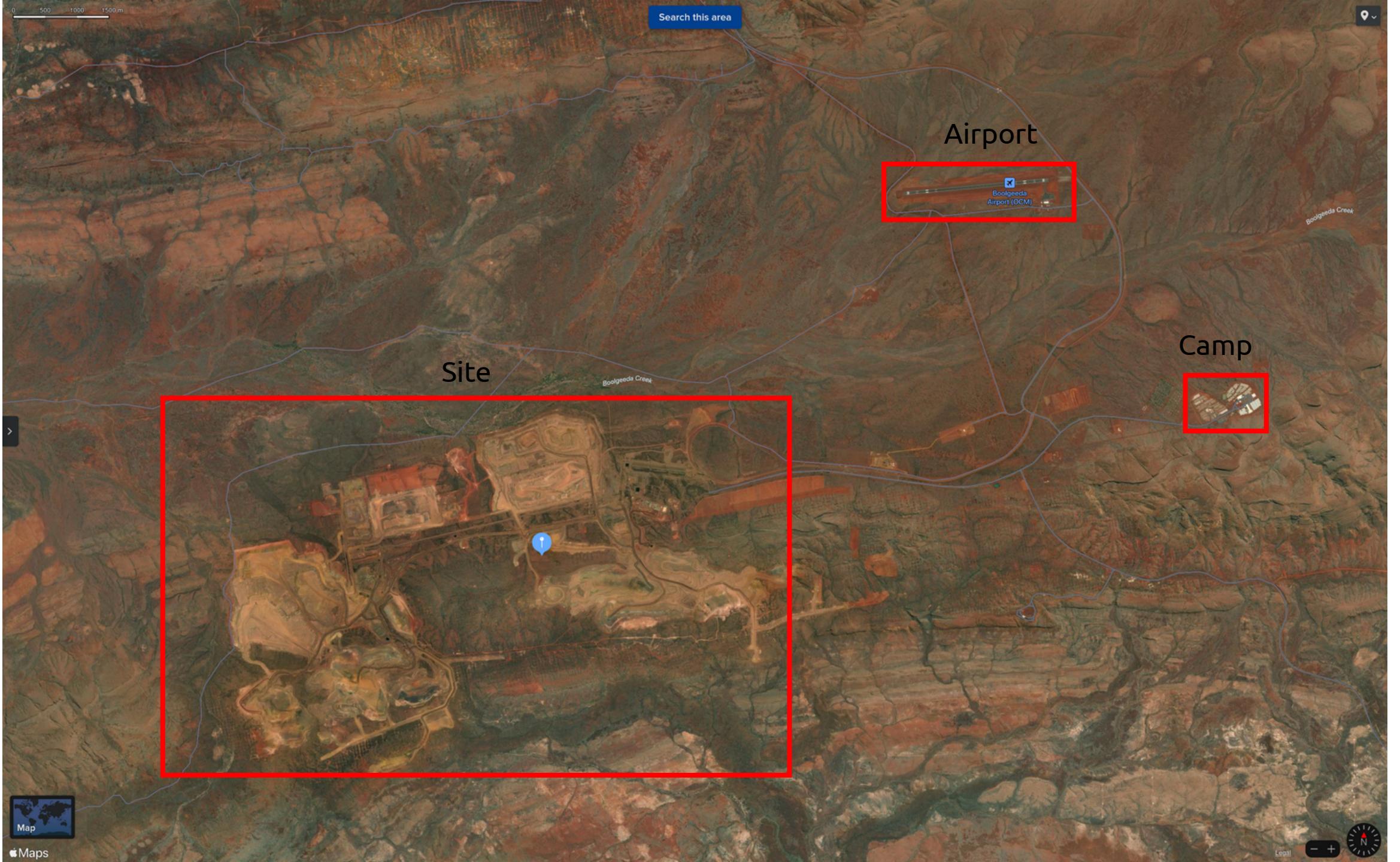


Calistemon





Calistemon



Map

Apple Maps



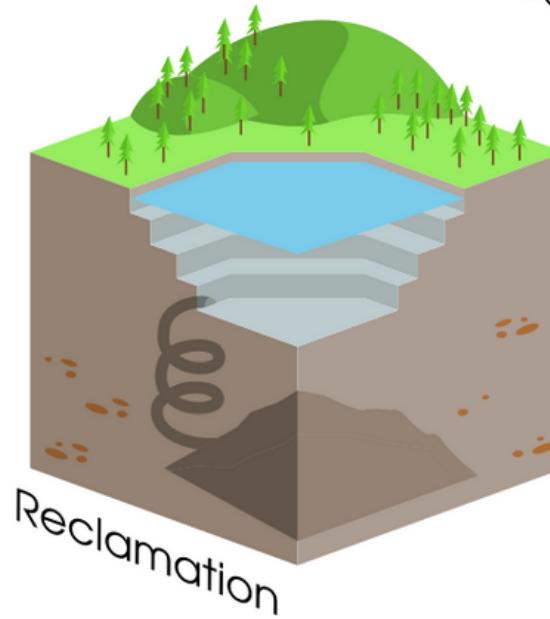
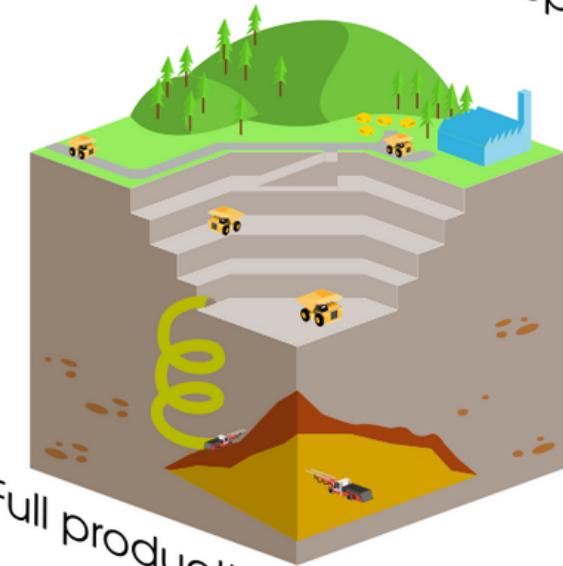
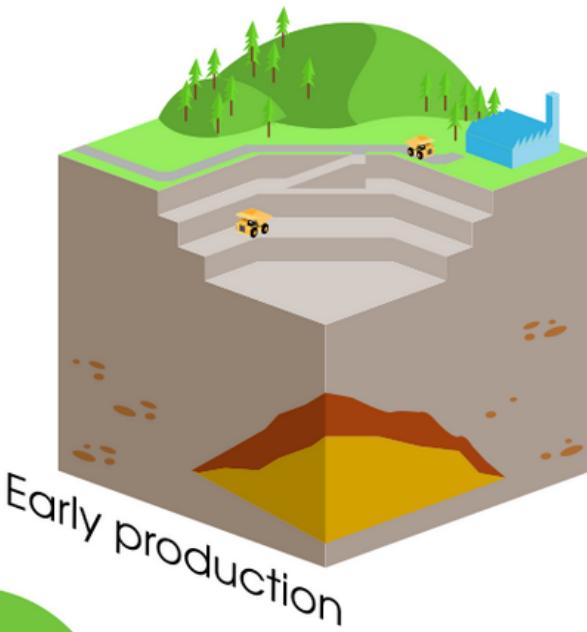
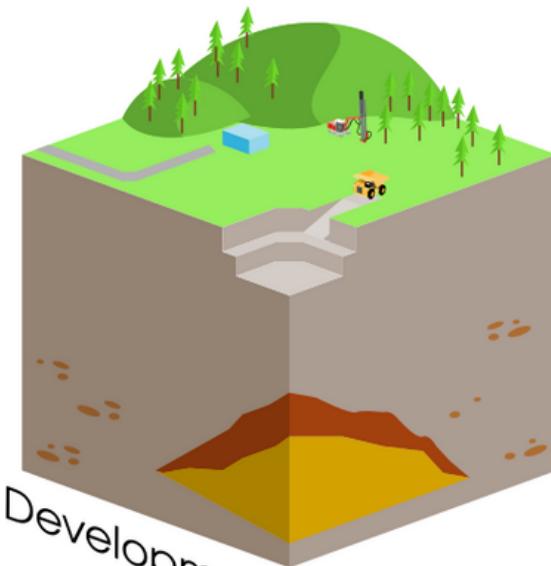
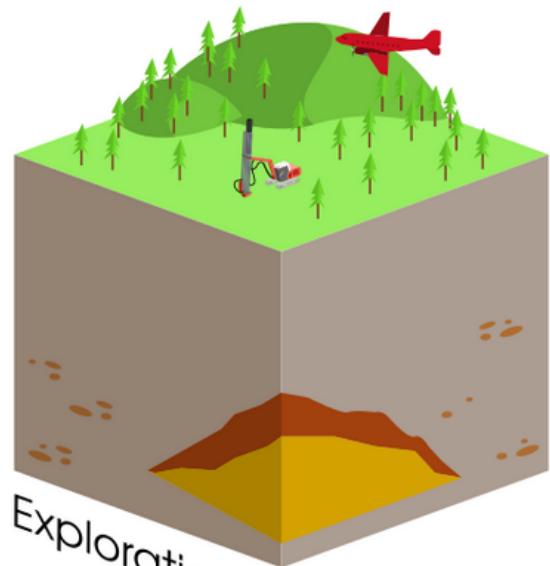
-

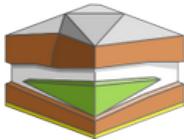
+

Legal

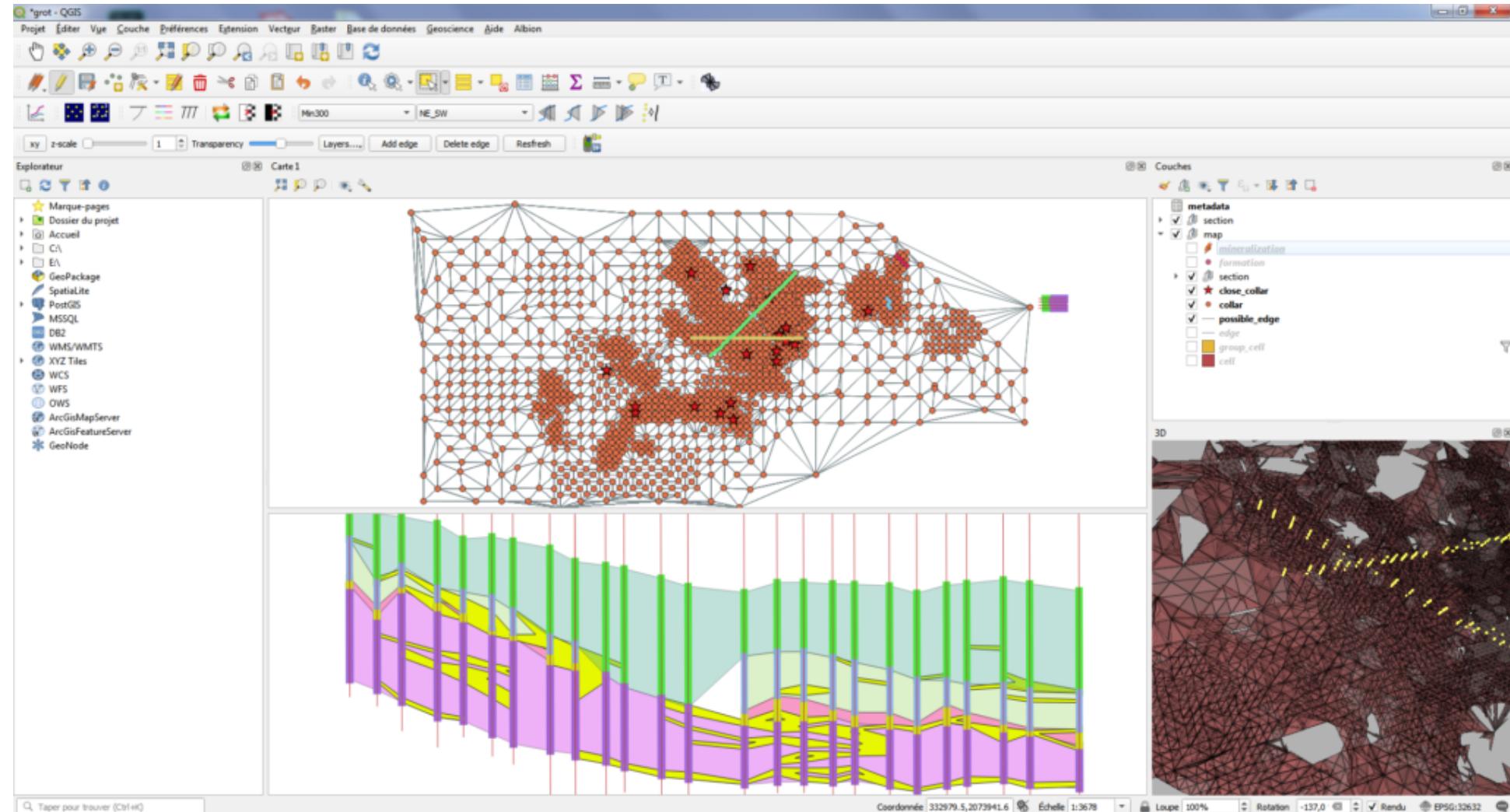
# Contribution





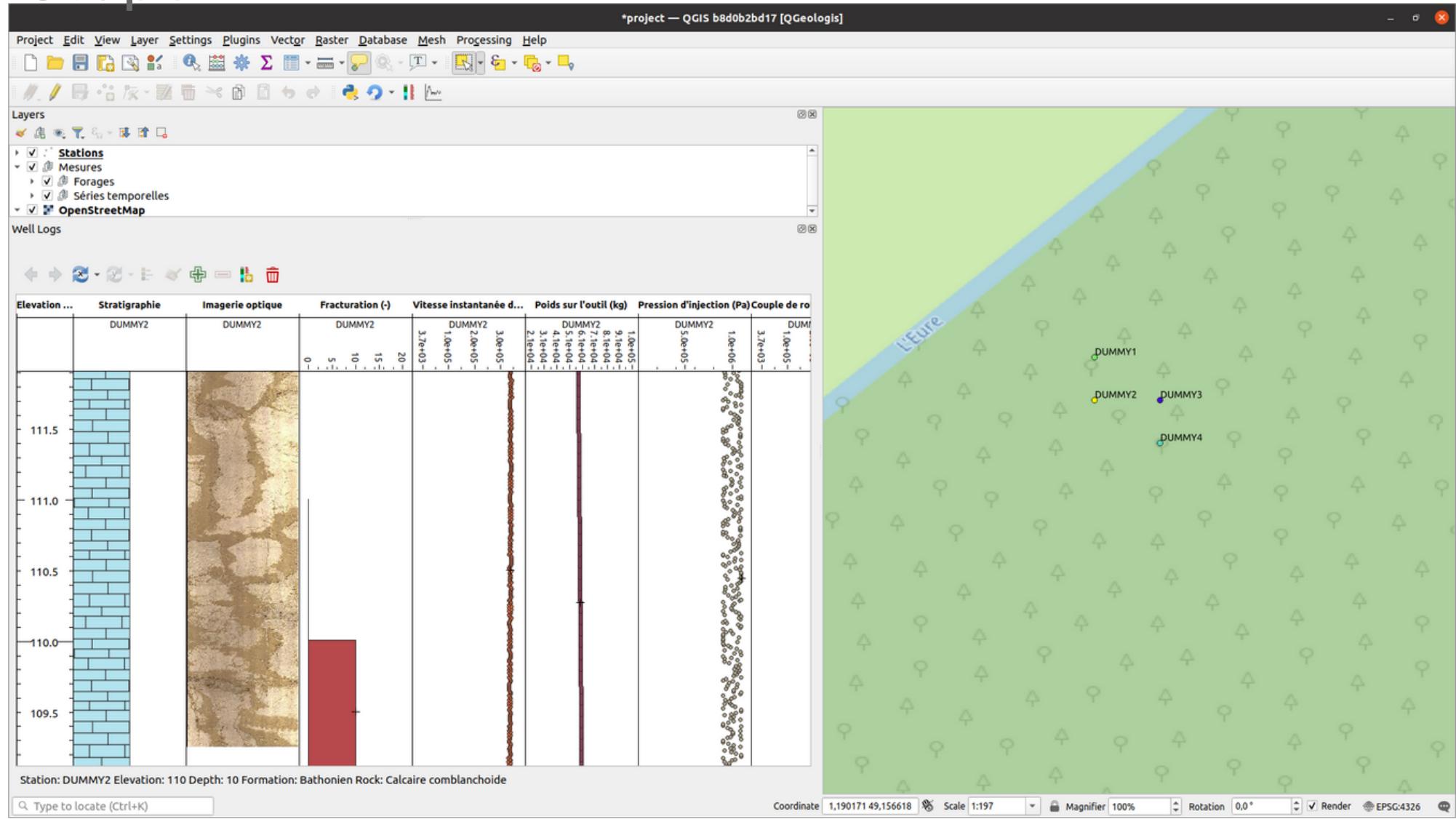


# Albion

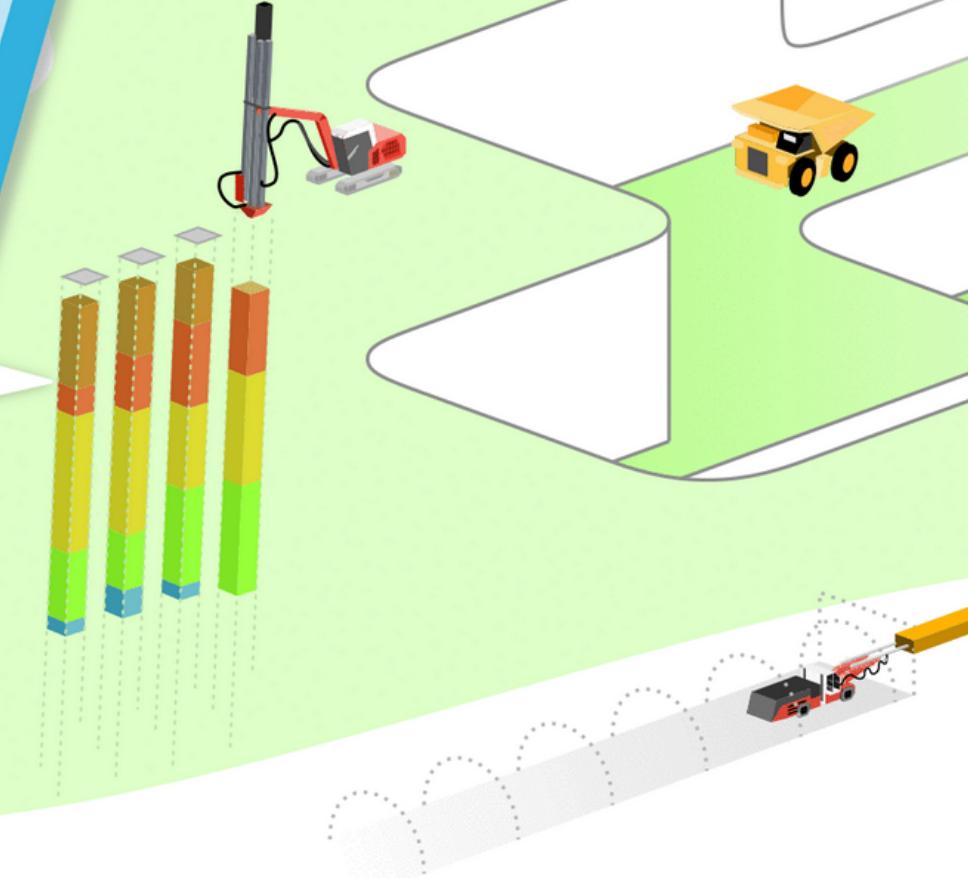


**FOSS4G**  
BUENOS AIRES 2021

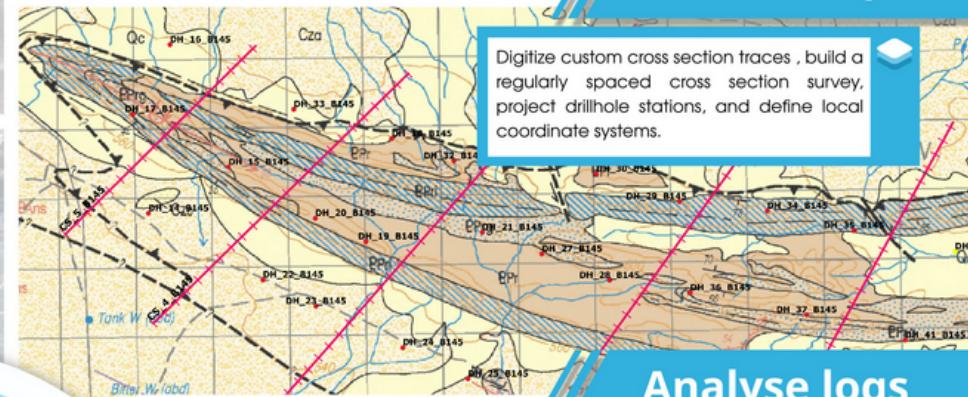
# OpenSlope



# OpenLog



# Read maps



## Project cross sections

Establish structural trends easily with the cross section viewer featuring variable projection distance, assay/structural data on trace rendering, and hybrid-driven correlation tools.

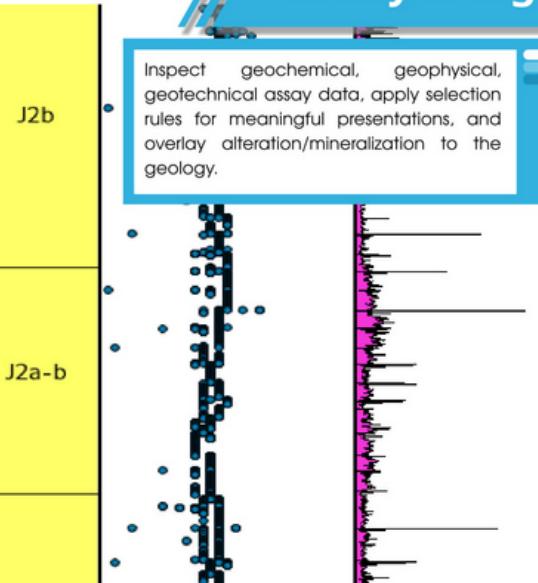
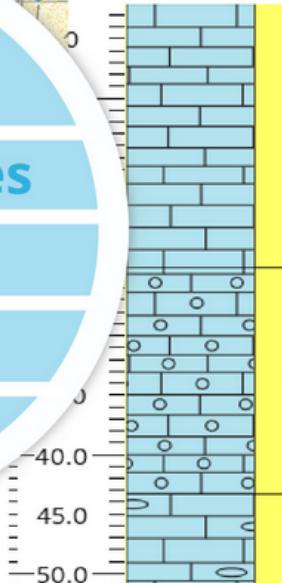
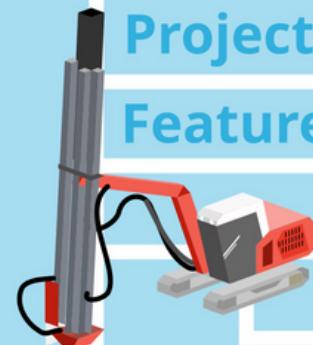
## Upscale to 3D

Render thousands of drillholes for improved spatial awareness, focus on crucial data via clipping and filtering controls, and take it to the field on mobile.

## Manage databases

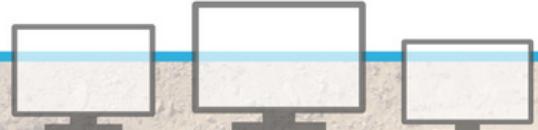
Integrate with existing commercial drillhole databases or build your own with PostGIS OGC implementation, import standard CSV tables, and ensure quality through a dedicated QA system.

# Project Features



## Link Views

Operate in real time between cross section, map, 3D, and log views with a unified reload free synchronous data handler.



OSLANDIA