

Transport

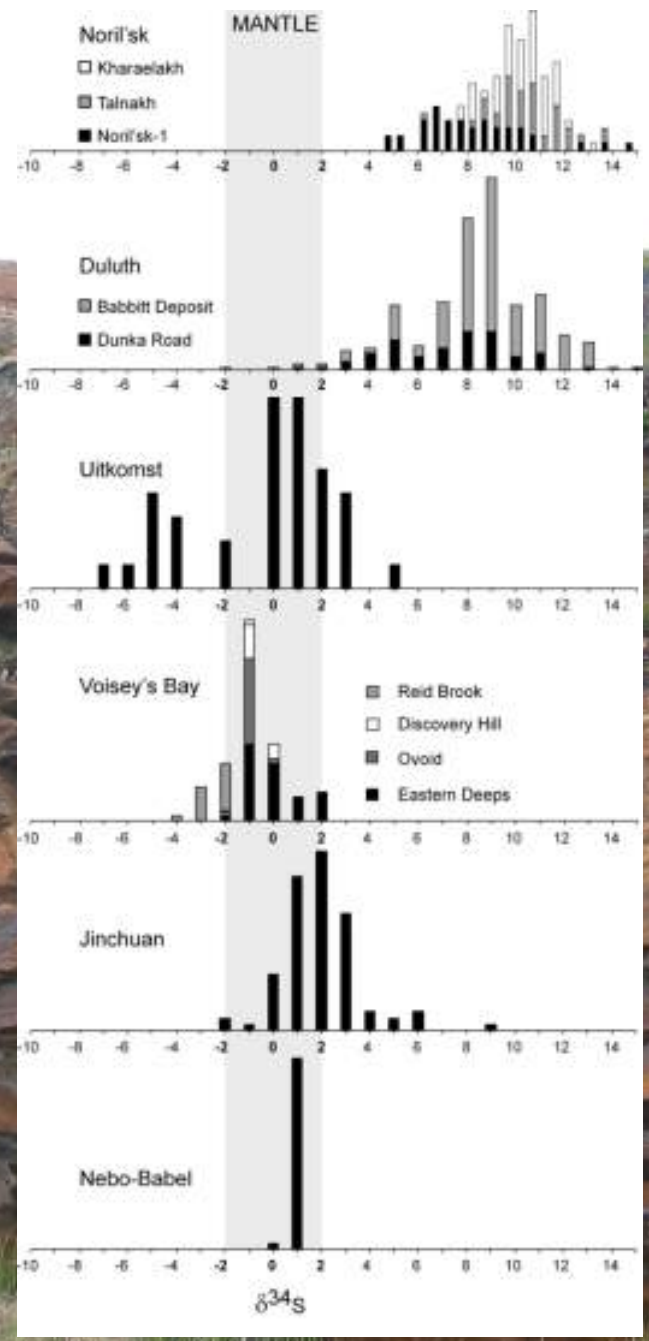
- Pressure and SCSS
- Depth of emplacement
- **S addition is not a ubiquitous process**
- Extrabasinal vs intrabasinal S
- New techniques - **Mass independent S fractionation**
- Physical emplacement
- Controls on clustering
- **Staging chambers**

Key idea

Pressure and polybaric assimilation plays a key role in magma and sulfide transport

Do we need staging chambers, can we image them?

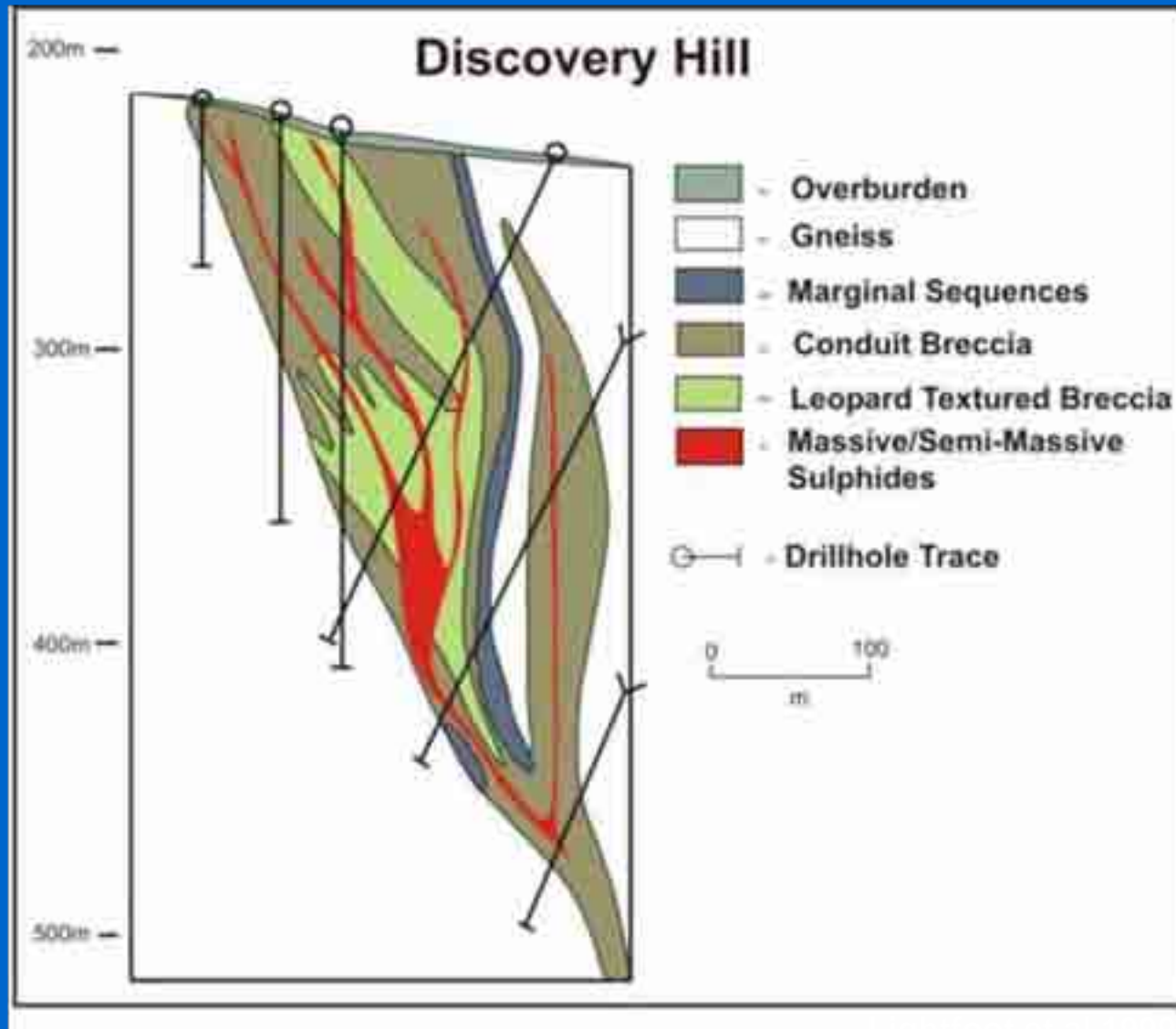
Is crustal S necessary for all parts of the continuum



Key idea

The mafic end member of the magmatic Ni-Cu-PGE spectrum is characterised by non-gravitational settling

Discrete massive sulfide?



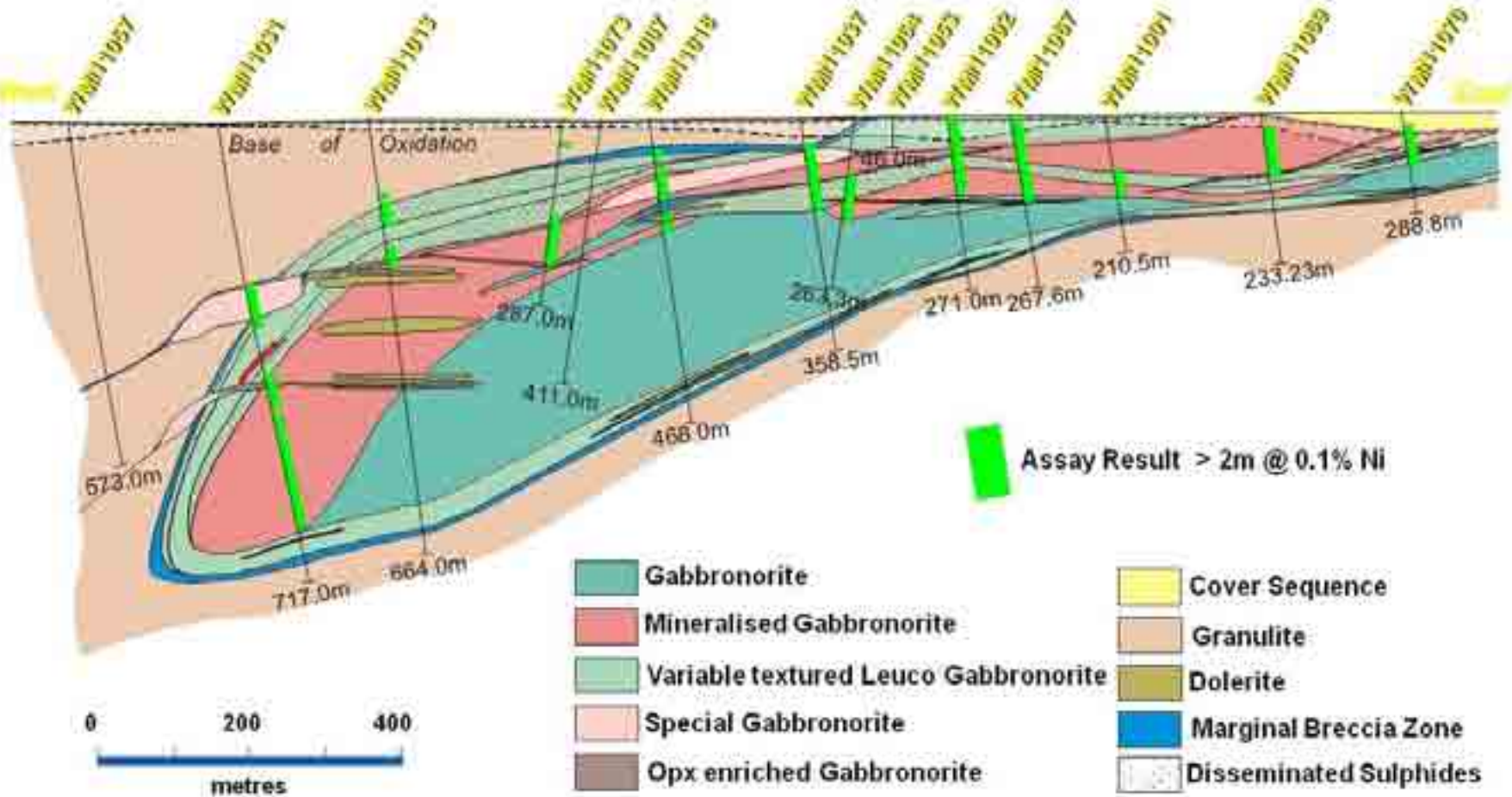
Trap

- **Understanding deposit footprints**
- **Chonoliths – what are they, how emplaced?**
- **Are sulfides mobilised from massive sulfides or disseminated, how far?**
- **Breccia pipes eg Aguablanca, Giant Mascot**
- **Funnels are a myth**

Key idea

Magmatic Ni-Cu-PGE deposits are associated with vertical or horizontal pipe like conduits

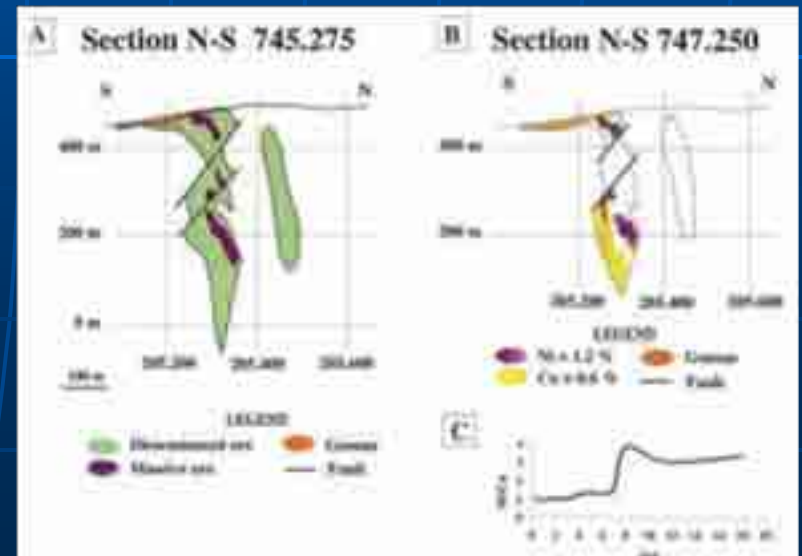
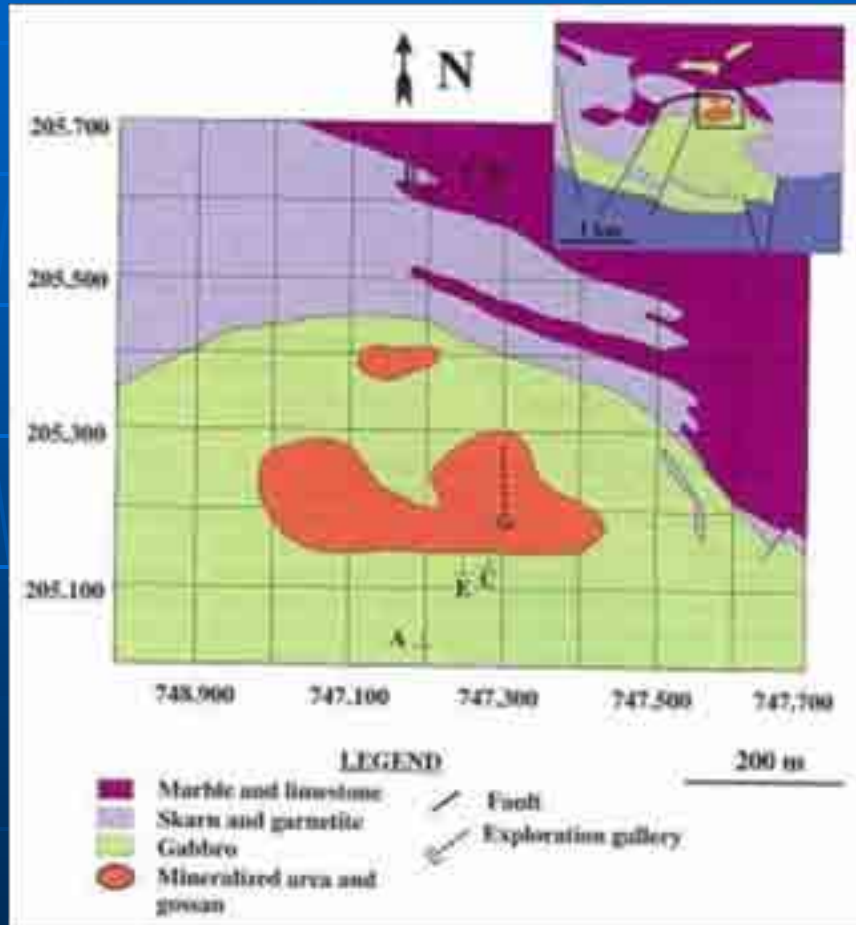
Nebo- Babel



Seate al 2007

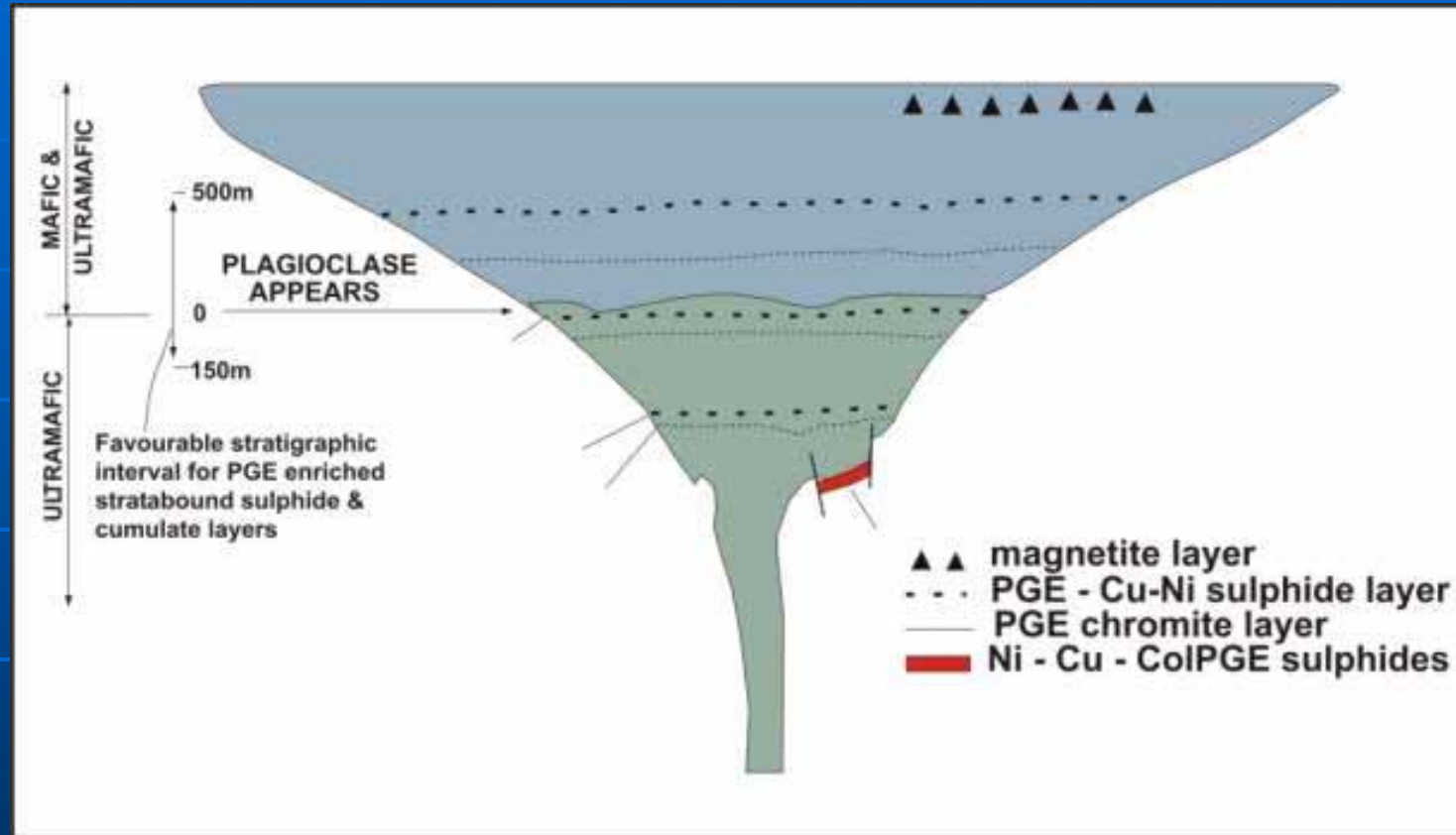
NiS Breccia pipes - specific case of sulfide mobilisation

eg Aguablanca



Where are sulfides being mobilised from?

Myth



Funnel shaped intrusions
– no world class examples

Hoatson 2005

Conclusions

Detection science is advancing well. As exploration moves deeper under cover we need to express models in integrated geophysical and geochemical space

Predictive exploration – Little to no focus in academia and little confidence across the industry and yet area selection will be even more crucial in under cover exploration

This is not a criticism but an opportunity