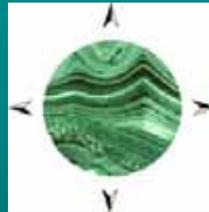
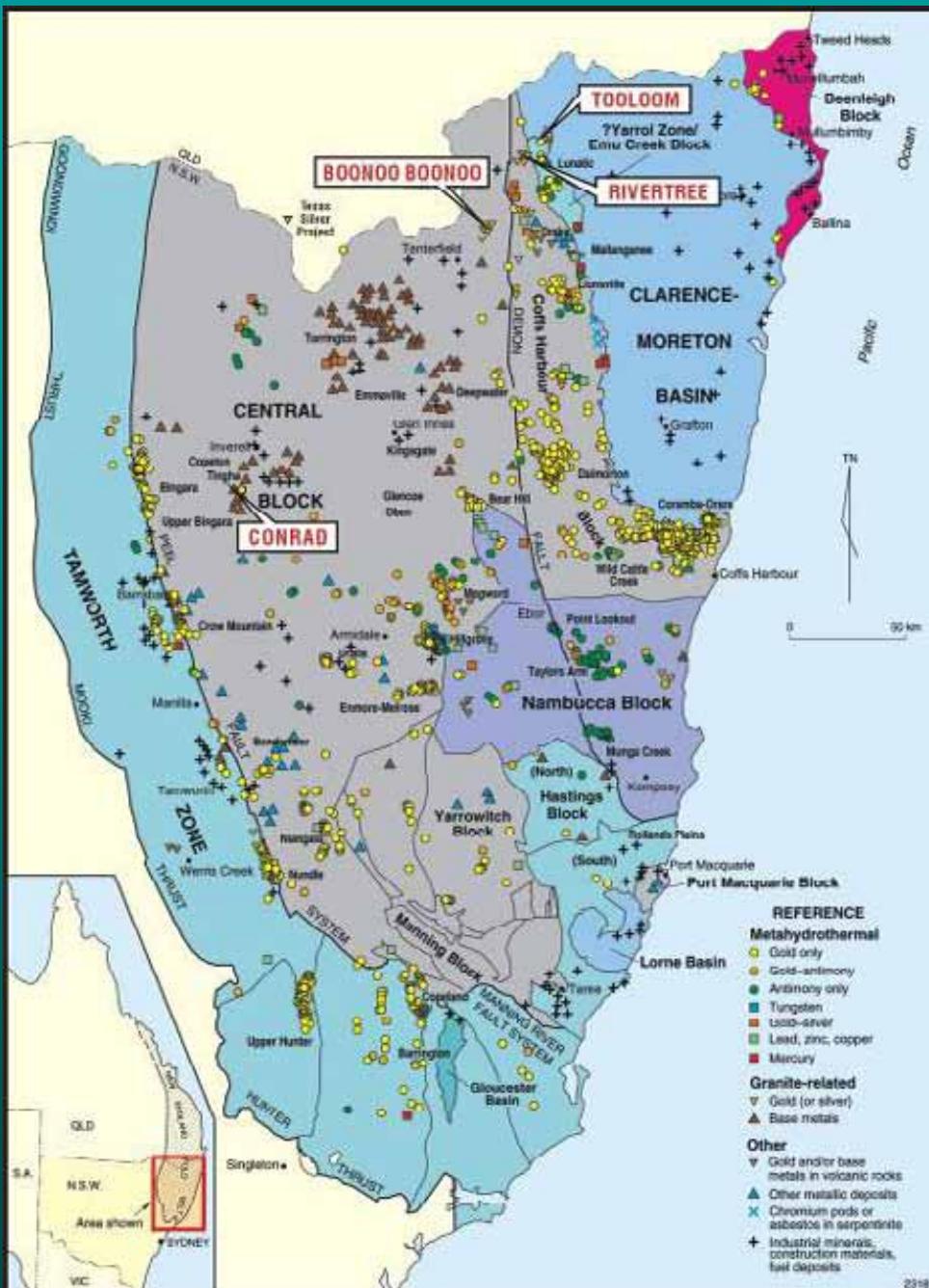


# **MINERALISATION STYLES AT THE CONRAD SILVER MINE**



**Russell Meares  
Executive Director  
Malachite Resources NL**

*Mines & Wines Conference, Orange, September 2007*



## Metallogeny of the New England Fold Belt

# Conrad Silver Project



- **Malachite's flagship project**
- **Largest silver mine in New England**
- **Past production: ~200,000t @ 20 oz/t Ag, 8% Pb, 4% Zn, 1.5% Cu & 1.5% Sn (= ~ 65 oz/t Ag<sub>EQ</sub>)**
- **Phase 1 resource drilling just completed**
- **Resource estimation in progress**
- **Metallurgical test work and mining studies commenced**
- **Project to be fast-tracked in 2008 with reserve drilling and scoping/pre-feasibility studies**



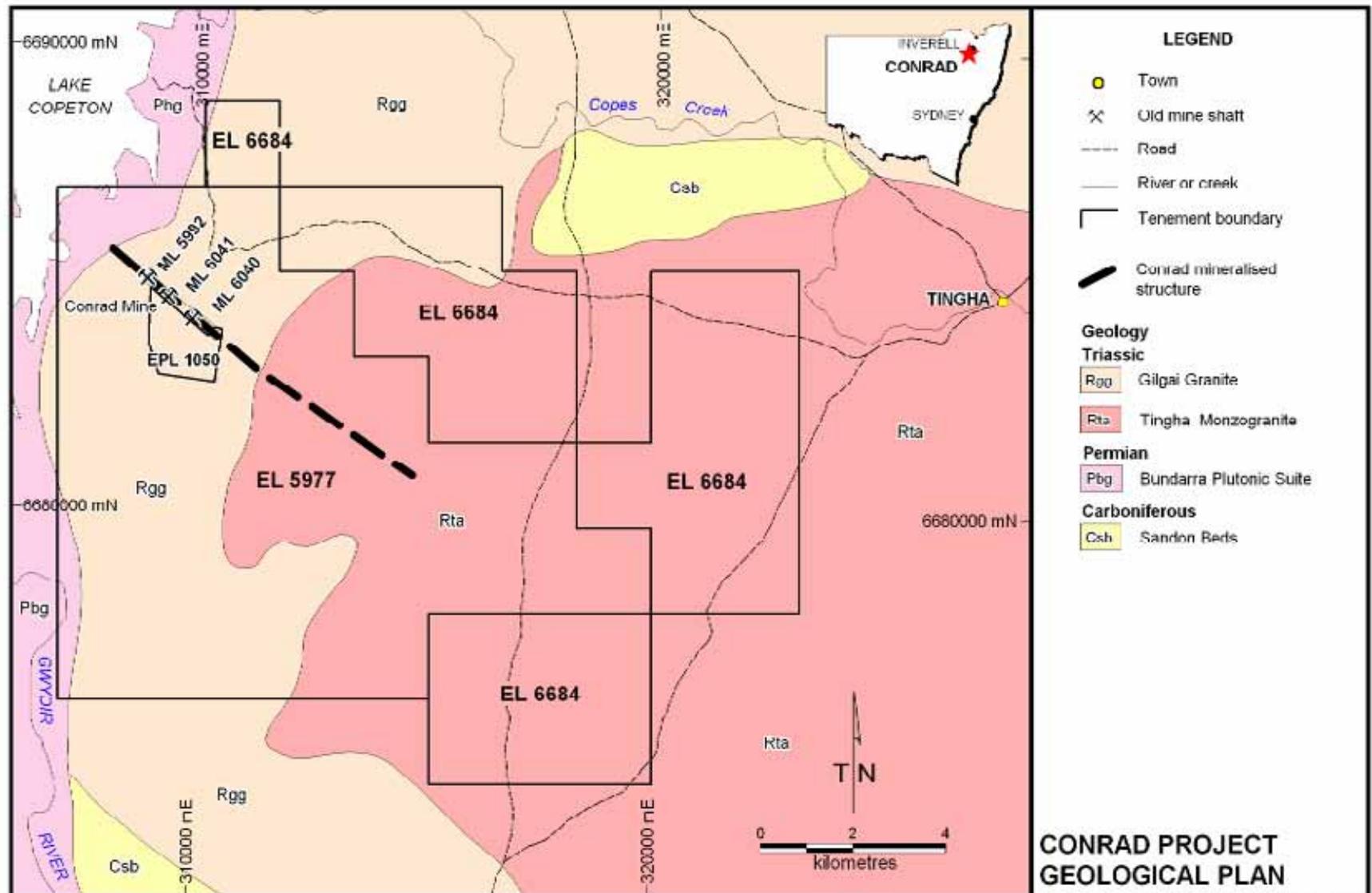
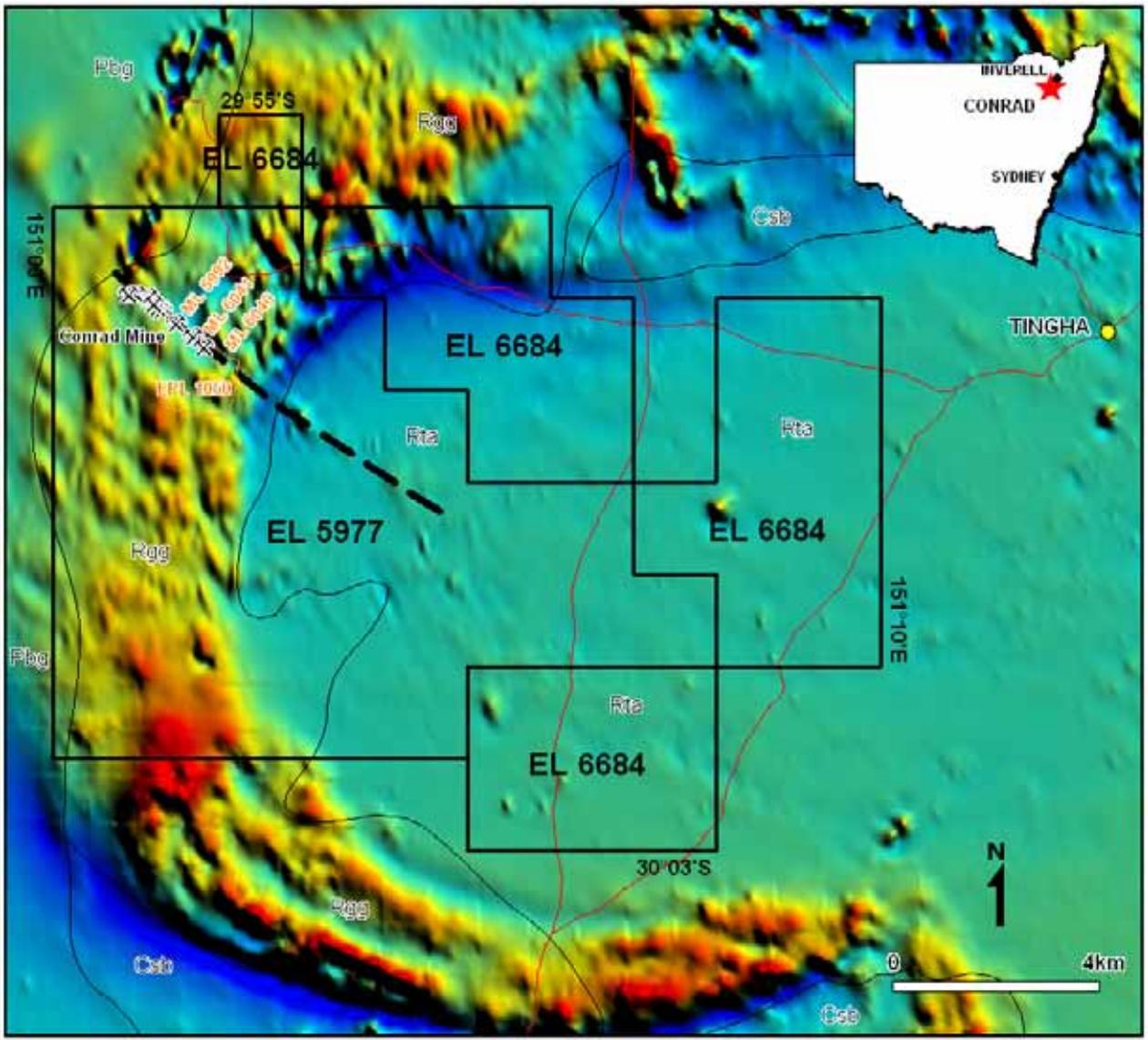


FIGURE 1

# Aeromagnetic image of the Conrad Silver Project

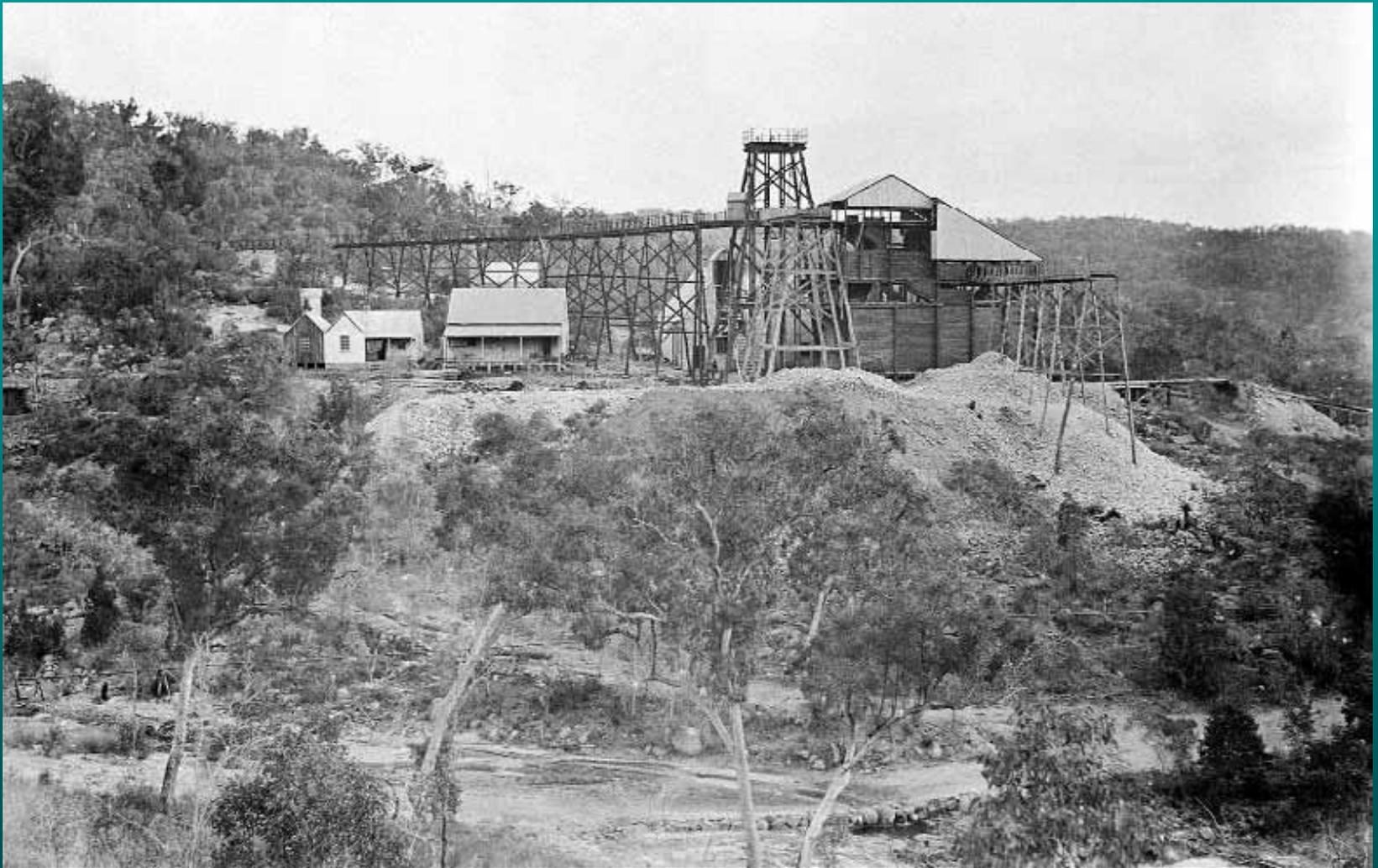


# Conrad: The Early Days



**The 200-strong workforce at the Conrad Mine about 1902**

# Conrad: The Early Days



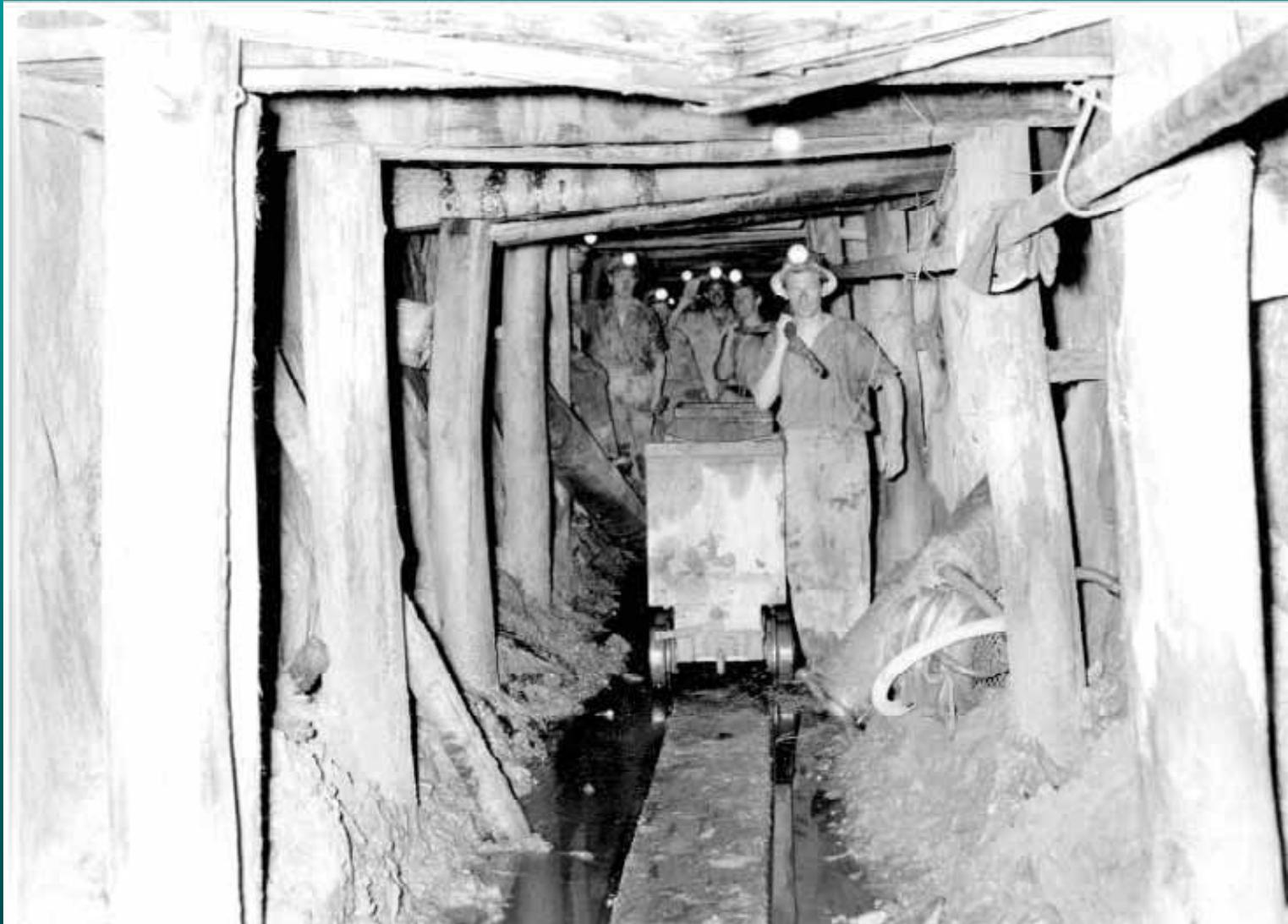
**King Conrad Mine about 1910**

# Conrad: The Early Days



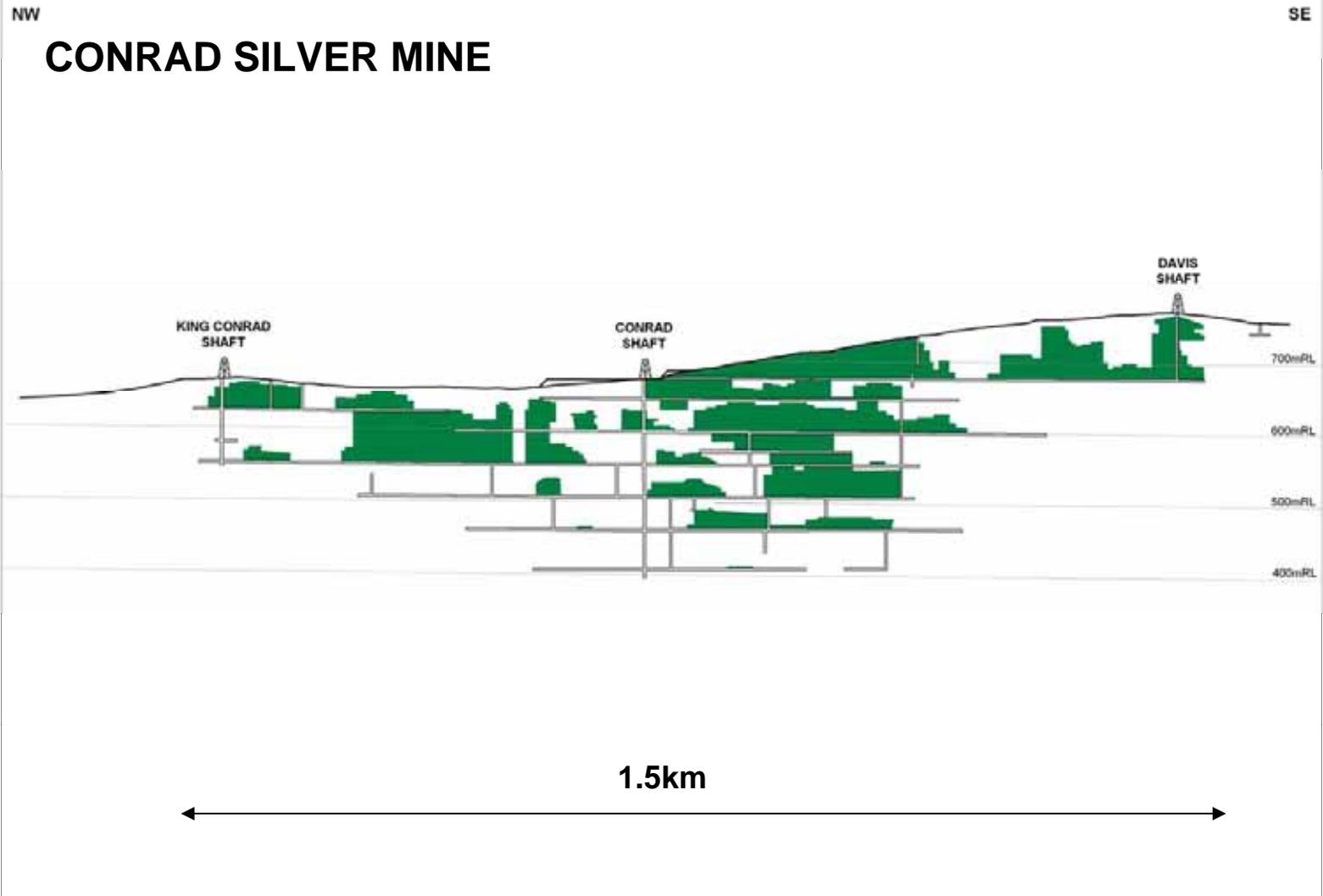
**The Conrad mine in 1957**

# Conrad: The Early Days



Underground at Conrad Mine, 1957

# Conrad: The Early Days



# Mineralisation Styles



## Massive Sulphide Veins

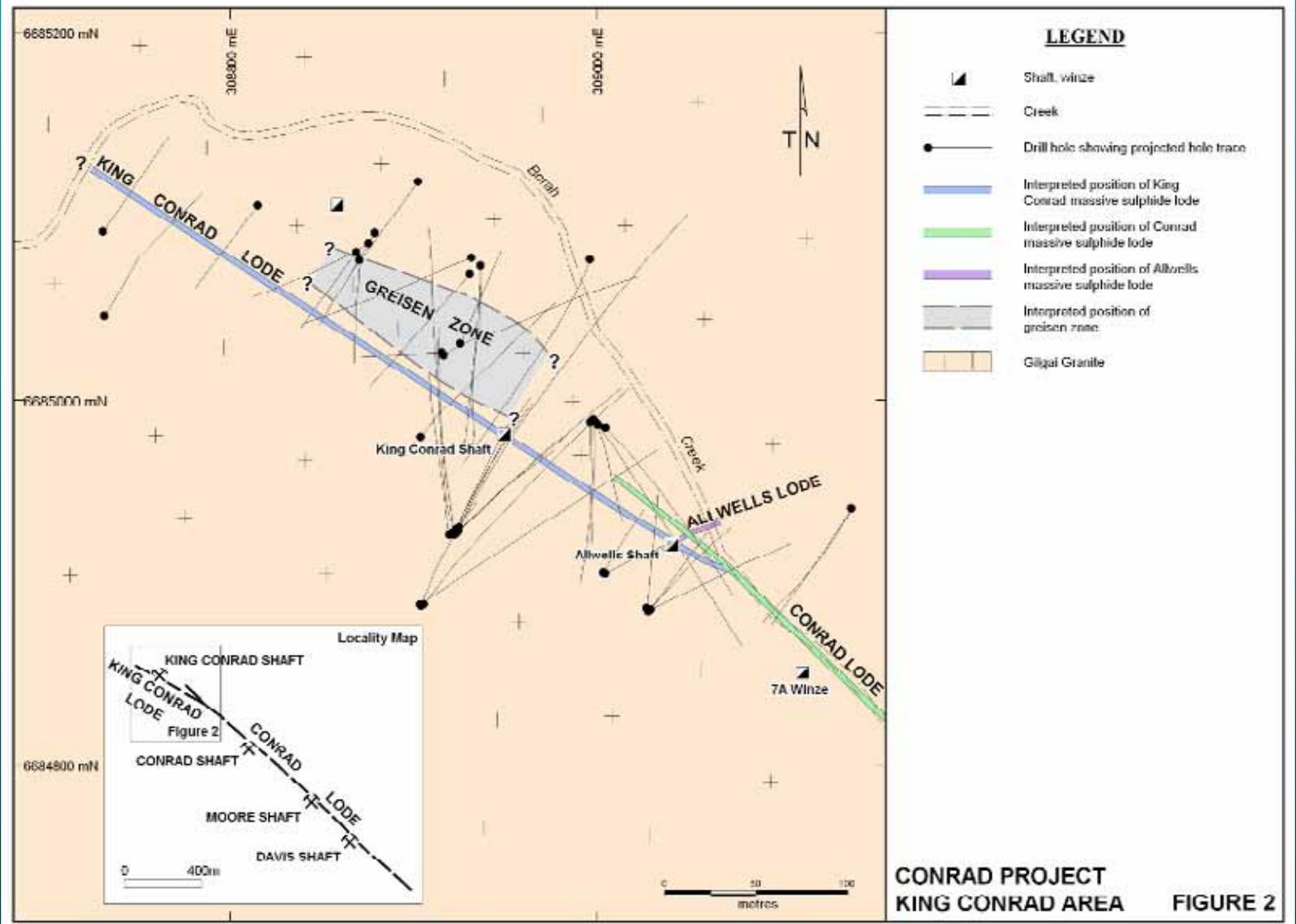
- Narrow, high grade polymetallic sub-vertical quartz-sulphide lodes
- Lode widths average 0.5m to 1m

## Vein Envelopes

- Disseminated and veinlet polymetallic mineralisation in sericitic selvages to high grade veins
- Lode package (lode + envelope) widths average 3m

## Greisen Zone

- Disseminated and veinlet bulk tonnage style mineralisation hosted by greisen
- Size: at least 150m x 40m and open at depth



# Massive Sulphide Vein Type



**Conrad Shaft & Headframe today**

# Massive Sulphide Vein Type



**Outcrop of Conrad Lode in Borah Creek**

# Massive Sulphide Vein Type



- **Lodes:**  
Conrad, King Conrad & Allwells
- **Mineralogy:**  
Quartz + sulphides + cassiterite  
= Galena, sphalerite, chalcopyrite, tetrahedrite  
+ cassiterite, stannite  
+ pyrite, pyrrhotite, arsenopyrite
- **Form:**  
Commonly symmetrically banded sulphide veins  
with a quartz core

# Massive Sulphide Vein Type



**Conrad Lode in  
CMDD43**

**Sphalerite &  
Chalcopyrite**

**King Conrad Lode in  
CMDD43**

**Sphalerite & Galena**



# Massive Sulphide Vein Type



**Conrad Lode in  
CMDD43**

**Sphalerite, Galena &  
Chalcopyrite**



# Massive Sulphide Vein Type



Massive  
galena from  
Allwells Lode

CMDD43



0.8m @ 692g/t Ag, <0.1% Cu, 17.9% Pb,  
0.7% Zn, 0.1% Sn & 6g/t In

= 2,115 g/t Ag<sub>EQ</sub>

# Massive Sulphide Vein Type



**King Conrad Lode: CMRD13**



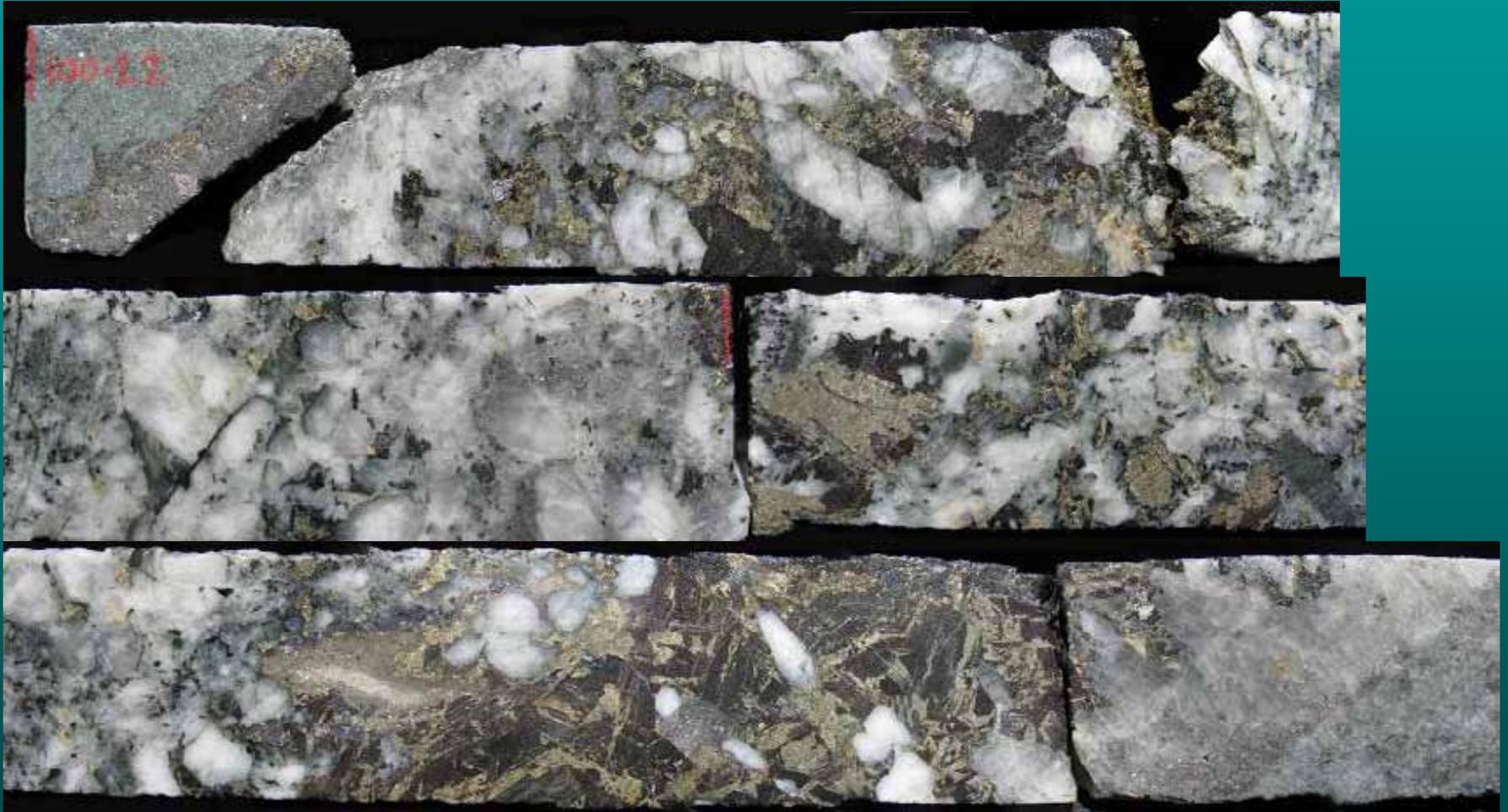
**King Conrad Lode: CMRD15**



# Massive Sulphide Vein Type



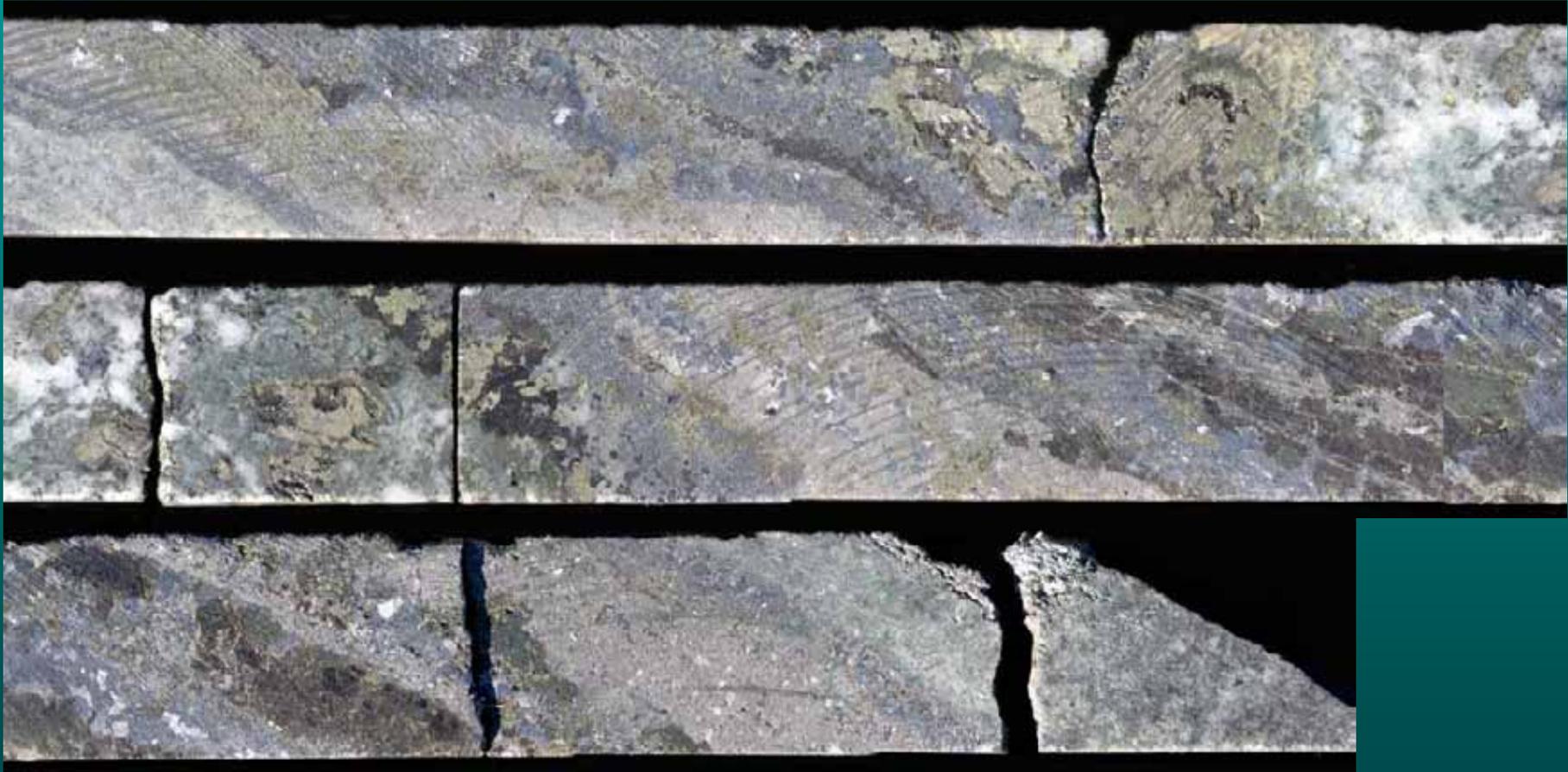
Conrad Lode: CMRD41



# Massive Sulphide Vein Type



King Conrad Lode: CMDD50



# Envelope Mineralisation



## King Conrad Lode

Envelope mineralisation  
in CMDD43

## King Conrad Lode

Envelope mineralisation  
in CMRD15



# Greisen Mineralisation Type



<b>CONRAD PROJECT</b>	
DATE: 3-3-07	BOX No: 4
DRILL HOLE No: CMD030	INTERVAL: 11.9-15.2

**Disseminated and veinlet mineralisation hosted by micaceous greisen**

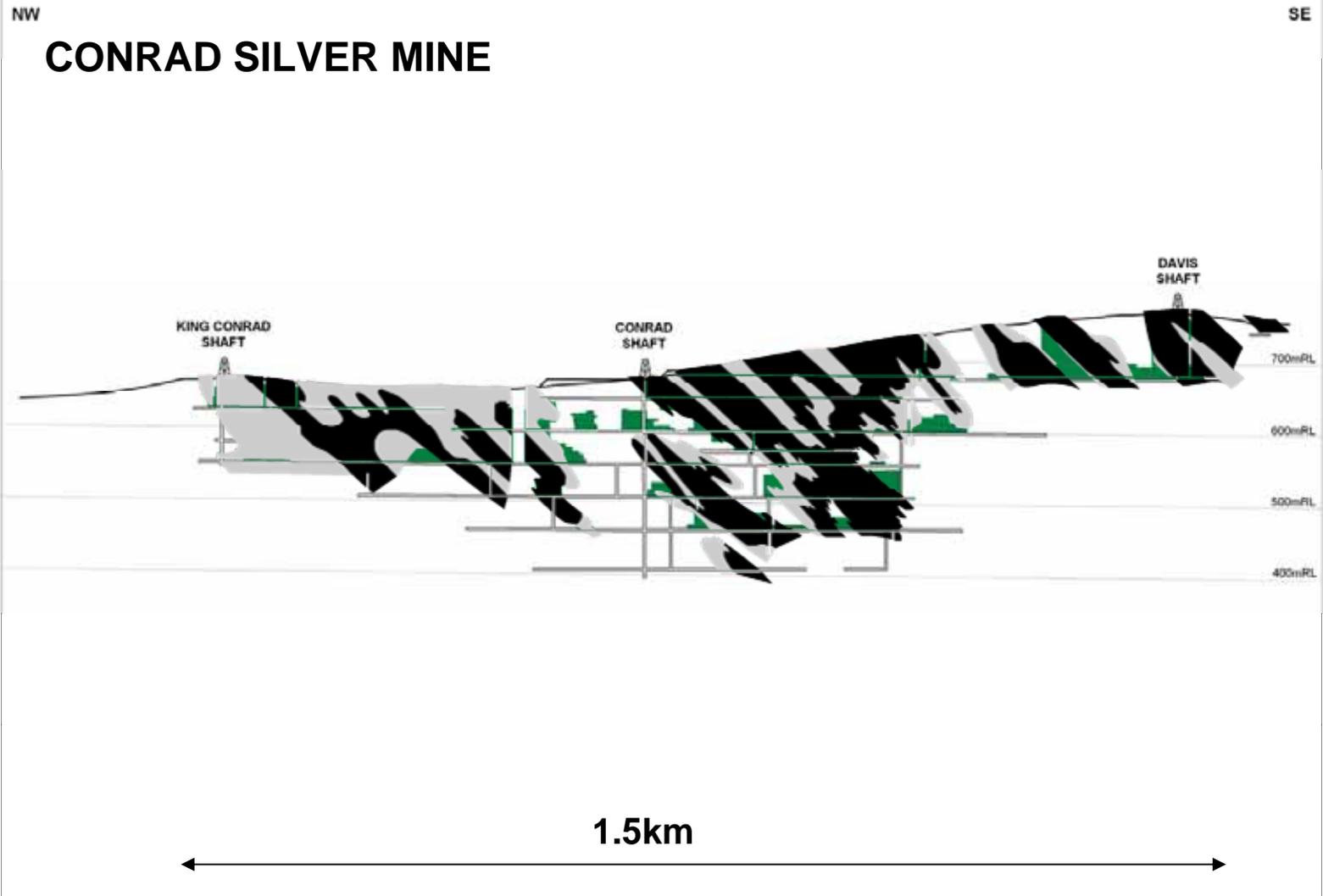
# Ore Mineralogy



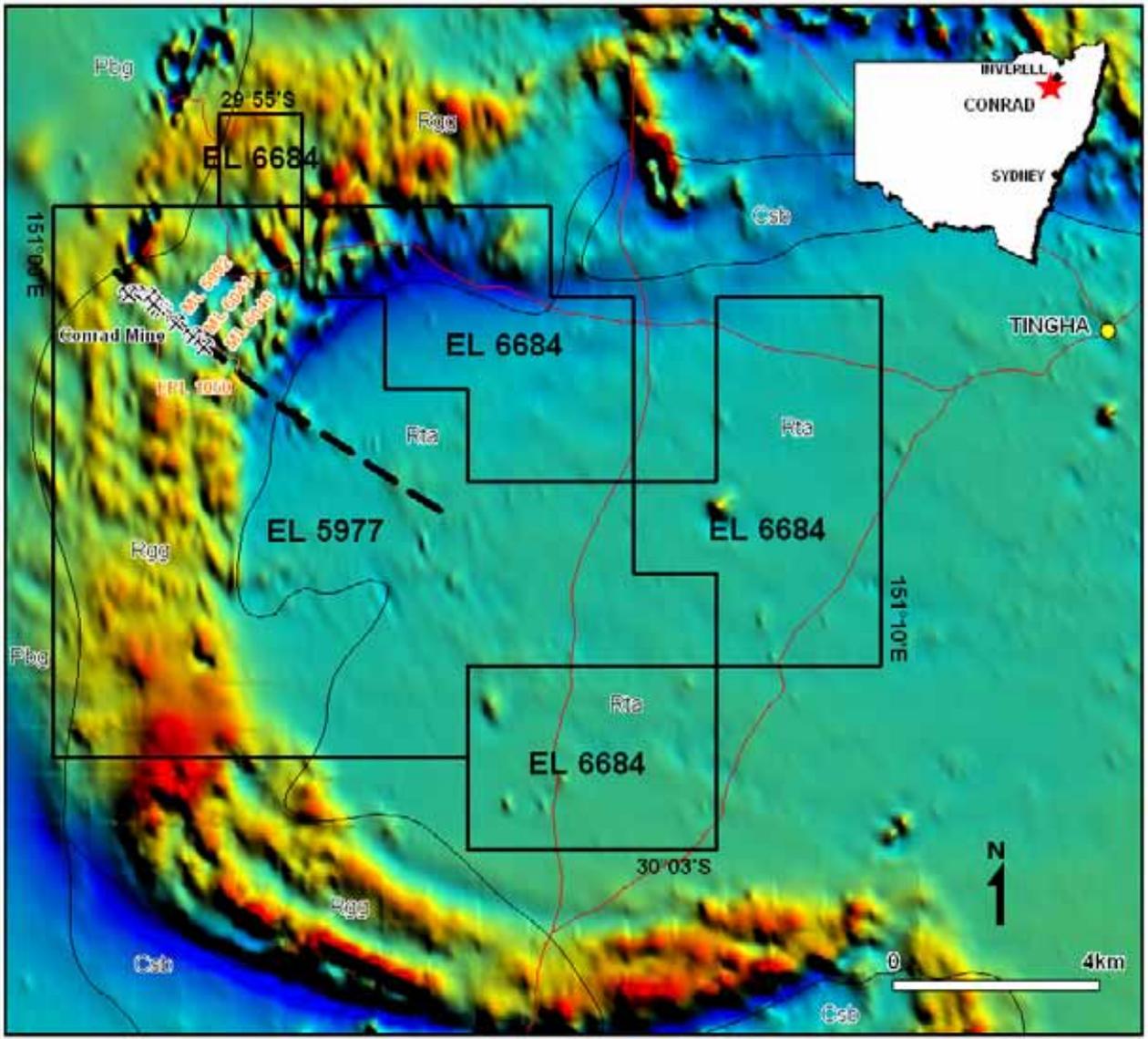
**Silver:** Tetrahedrite & Galena  
**Copper:** Chalcopyrite & Stannite  
**Lead:** Galena  
**Zinc:** Sphalerite  
**Tin:** Cassiterite & Stannite  
**Indium:** Sphalerite? Roquesite?



# Ore Controls



# Aeromagnetic image of the Conrad Silver Project



# What's Next at Conrad?

- Phase 1 resource drilling just completed
- Initial mineral resource estimate due in November
- Conceptual economic model developed ...
- ... Subject to refinement as new data are generated
- Metallurgical test work underway
- Engineering scoping study to follow
- Phase 2 resource drilling to commence January 2008





# Mines & Wines !

