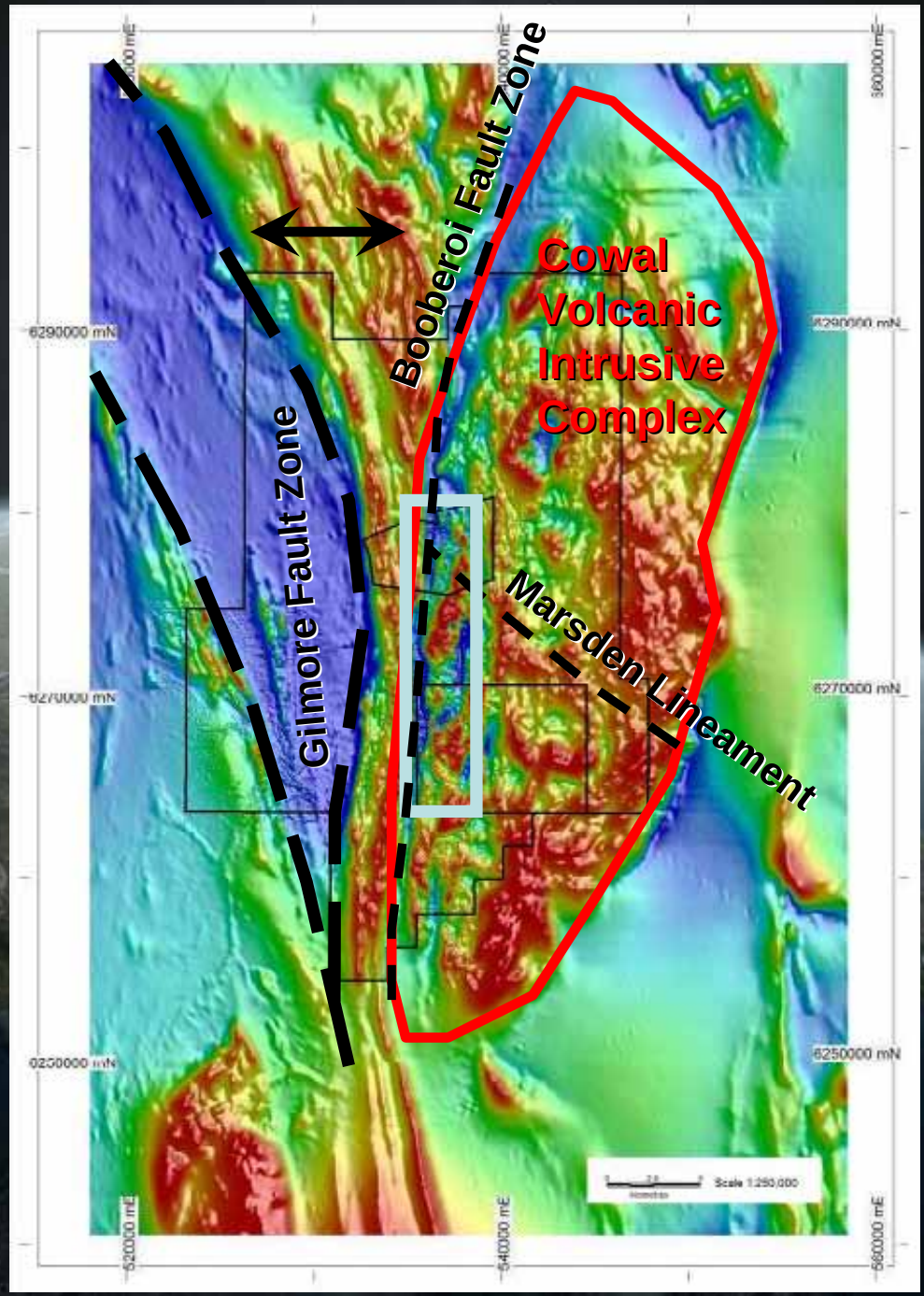

BARRICK
Cowal Gold Corridor
“Opening Other Doors”

Objectives

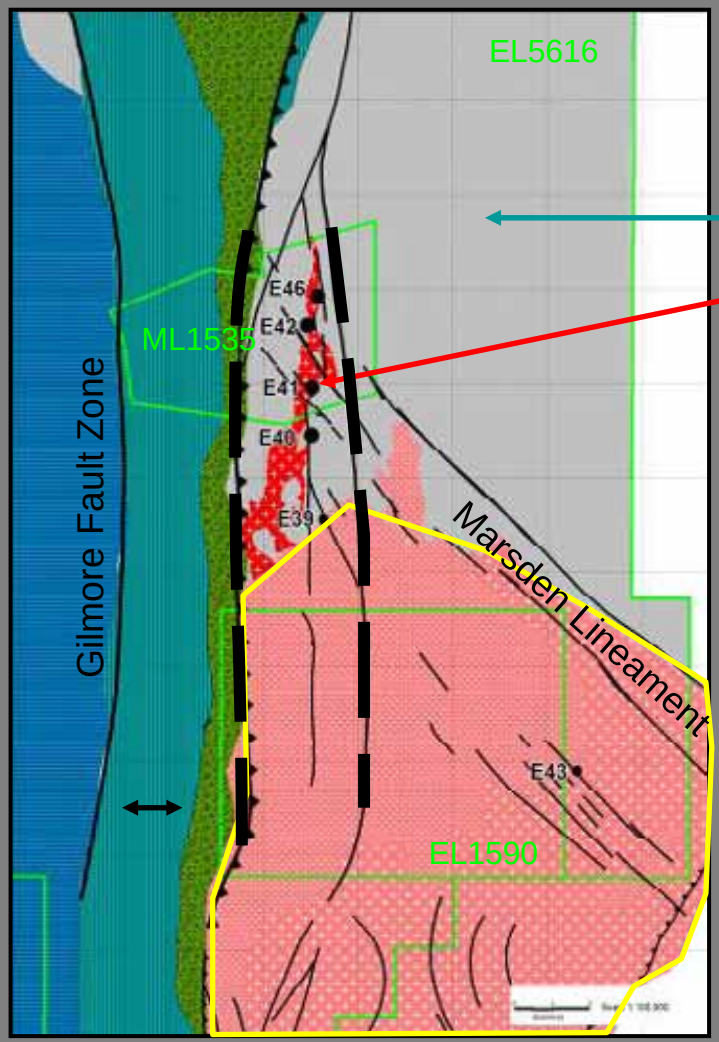
- “The Doors” of the Corridor – local geology of Cowal Gold Corridor
- Styles and controls on mineralisation within the Corridor
- Vein paragenesis
- Summary of characteristics of Cowal Gold Corridor and its deposits

Regional Geology

Modified from Holliday et al., 2002


Booberoi Fault Zone
Cowal
Volcanic
Intrusive
Complex
Gilmore Fault Zone
Marsden Lineament
6290000 mN
6270000 mN
6250000 mN
520000 mE
540000 mE
560000 mE
Scale 1:250,000

Regional Simplified Geology



Cowal Gold Corridor

Volcaniclastics

Muddy Lake Diorite

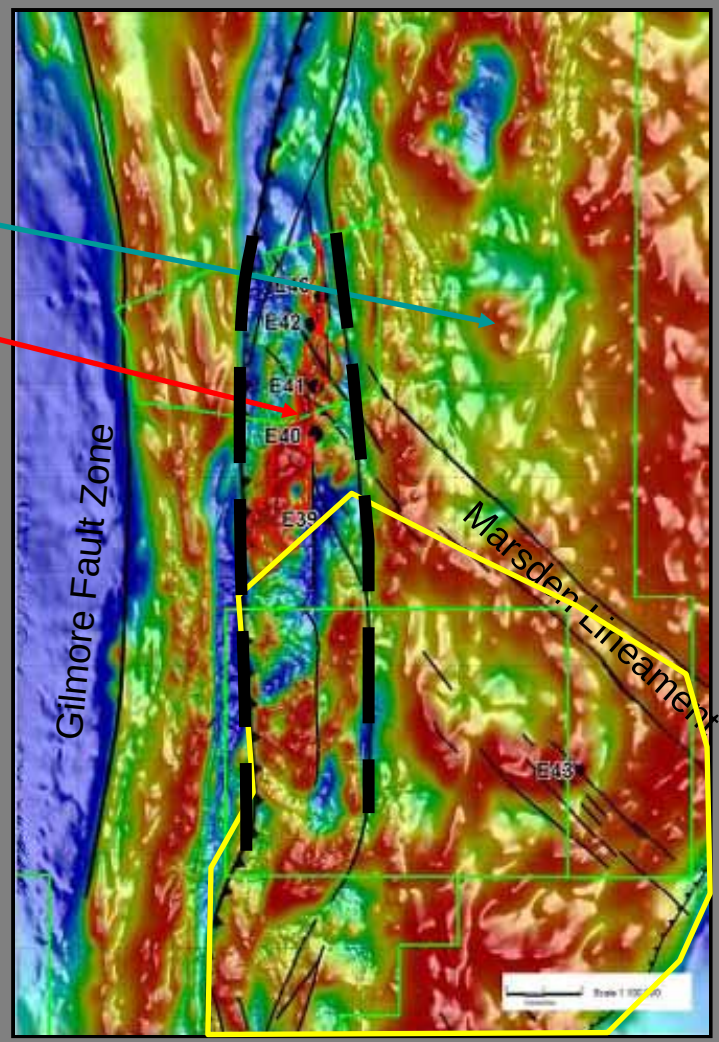
Phase 2 Intrusion

(455 – 467Ma)

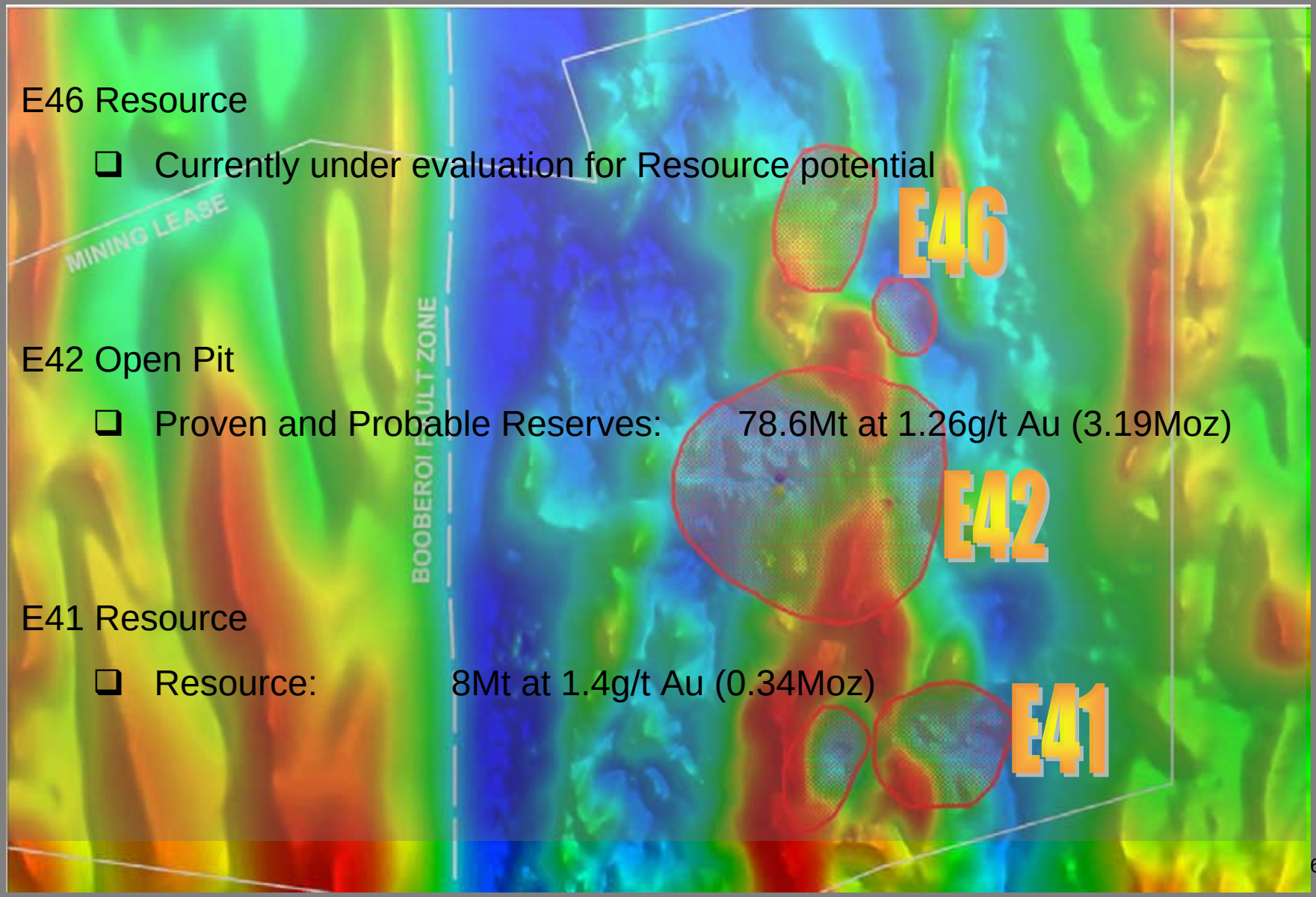
Granodiorite

Phase 3 Intrusion

(445-452Ma)



“The Doors” of the Corridor



E46 Resource

- Currently under evaluation for Resource potential

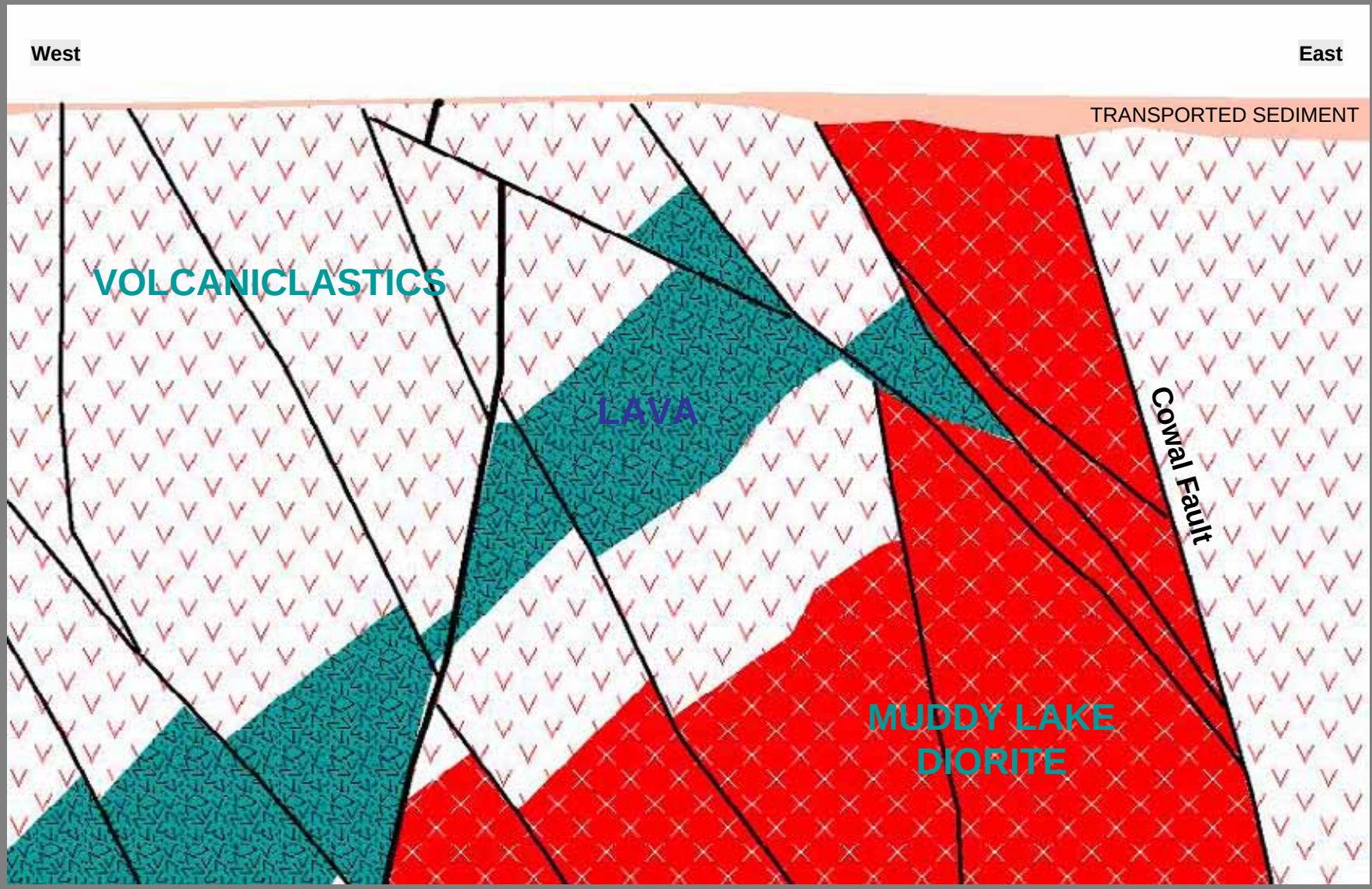
E42 Open Pit

- Proven and Probable Reserves: 78.6Mt at 1.26g/t Au (3.19Moz)

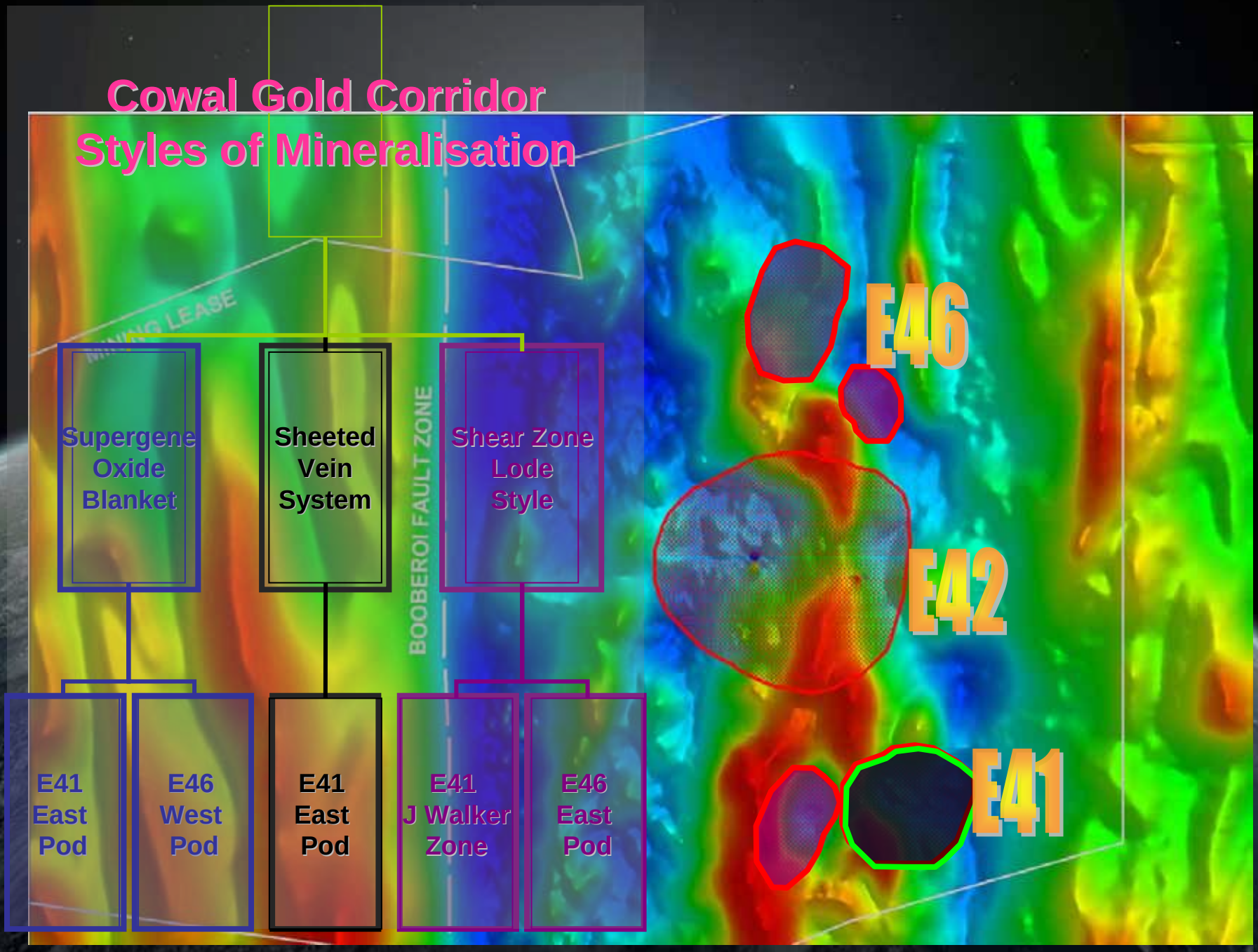
E41 Resource

- Resource: 8Mt at 1.4g/t Au (0.34Moz)

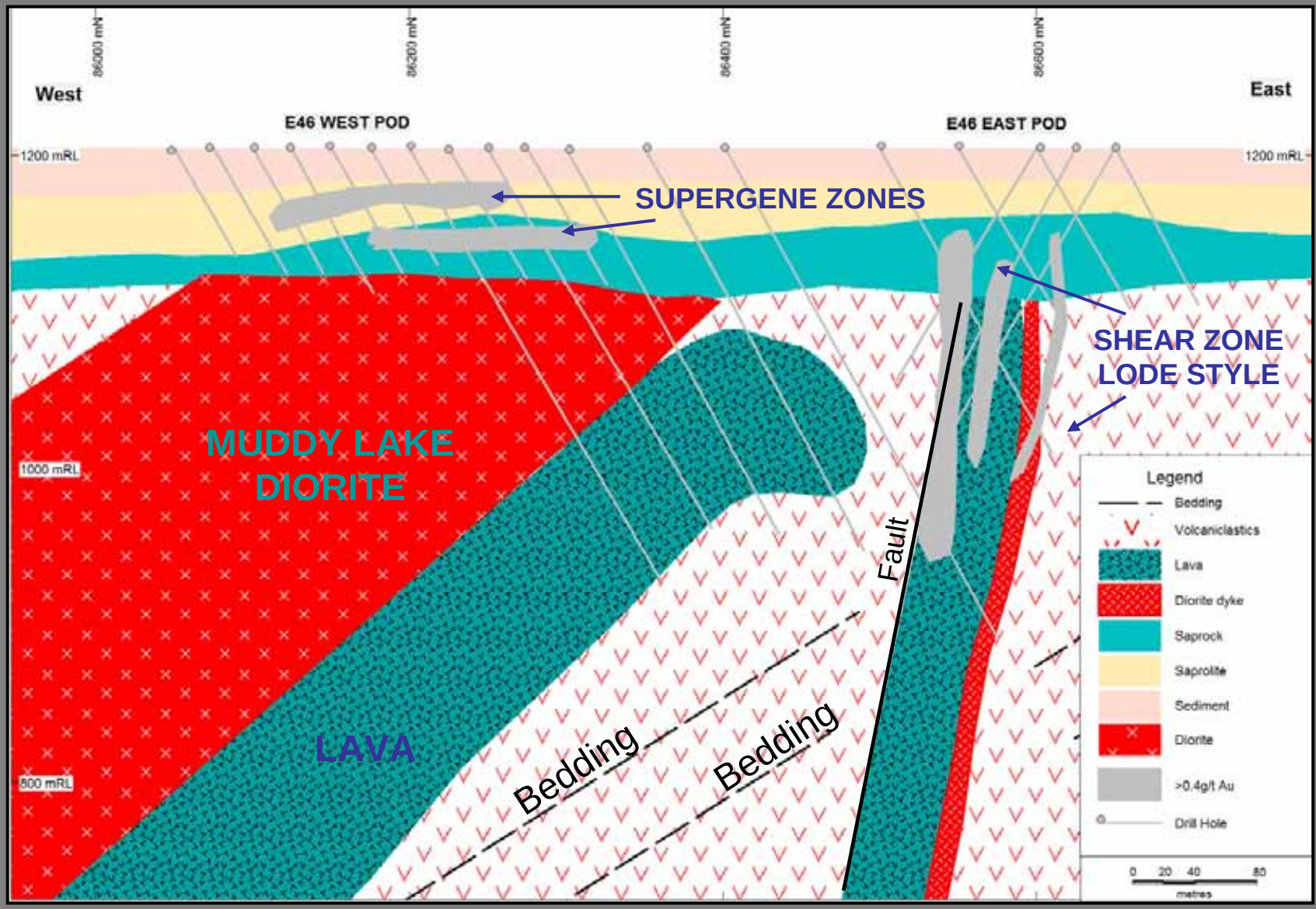
E42 Geology


West
East
TRANSPORTED SEDIMENT
VOLCANICLASTICS
LAVA
Cowal Fault
MUDDY LAKE
DIORITE

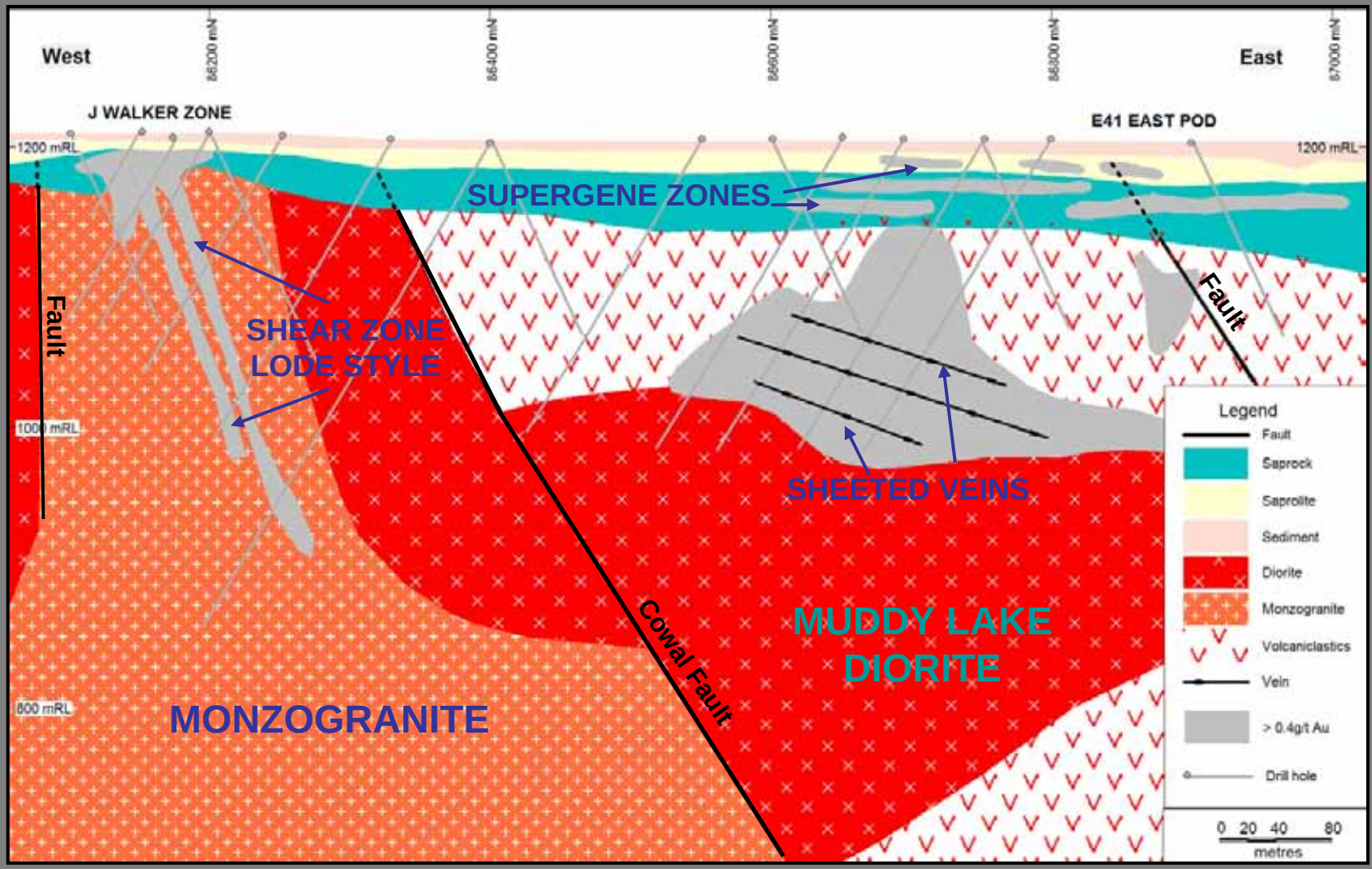
Cowal Gold Corridor
Styles of Mineralisation



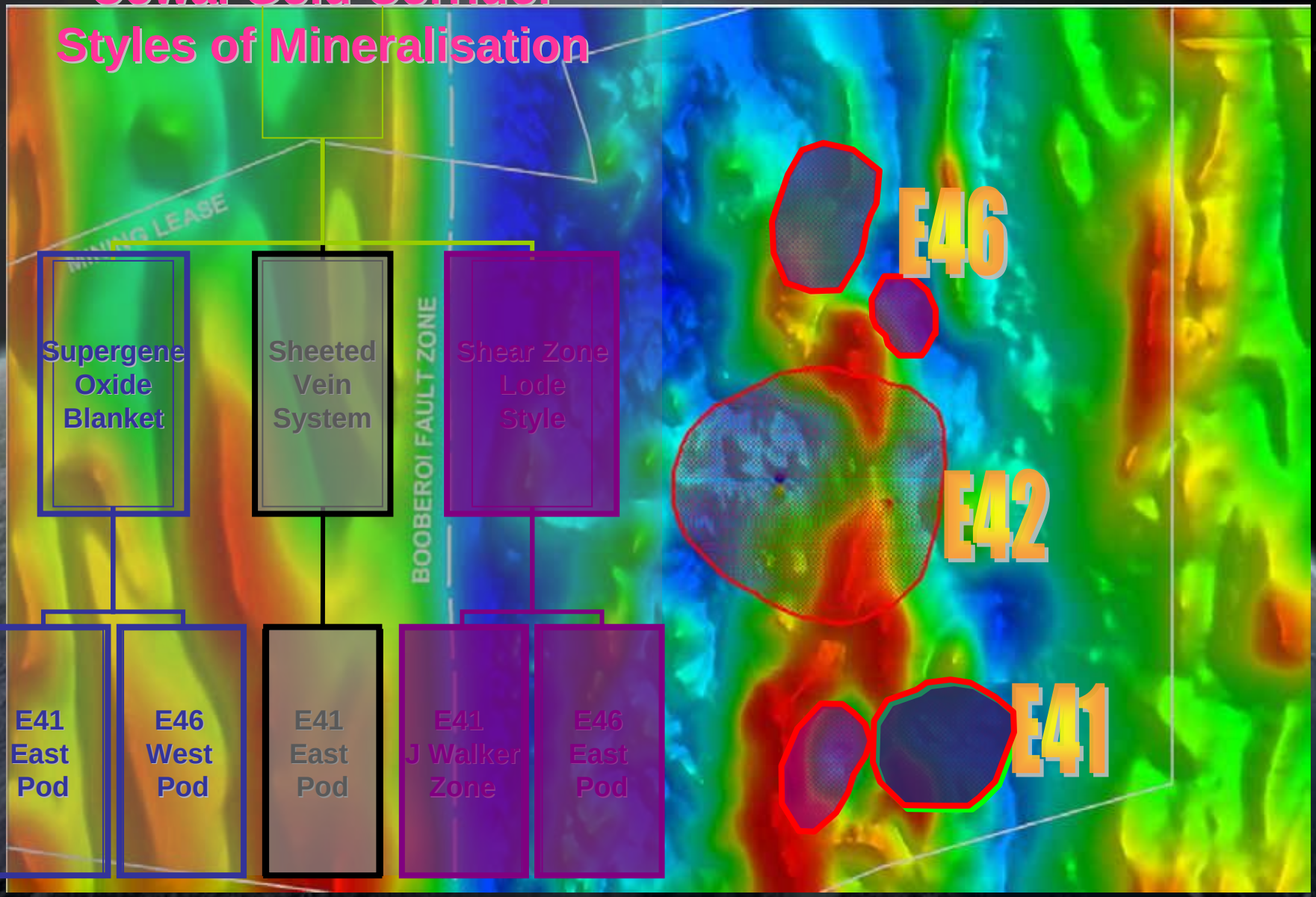
E46 Geology


West
East
E46 WEST POD
E46 EAST POD
1200 mRL
1000 mRL
800 mRL
SUPERGENE ZONES
SHEAR ZONE
LODE STYLE
MUDDY LAKE
DIORITE
LAVA
Bedding
Bedding
Fault
Legend
Bedding
Volcaniclastics
Lava
Diorite dyke
Saprock
Saprolite
Sediment
Diorite
>0.4g/t Au
Drill Hole
0 20 40 80
metres

E41 Geology

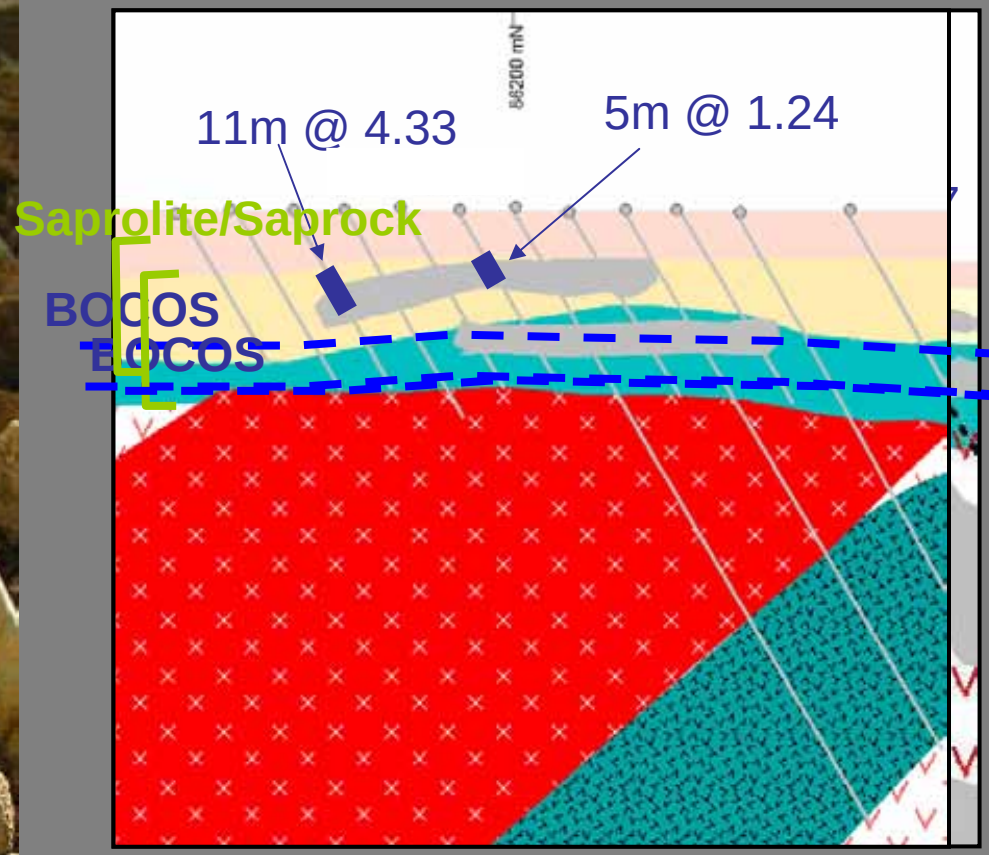

West
East
J WALKER ZONE
E41 EAST POD
1200 mRL
1200 mRL
SUPERGENE ZONES
Fault
Fault
SHEAR ZONE
LODE STYLE
1000 mRL
SHEETED VEINS
Cowal Fault
MUDDY LAKE
DIORITE
800 mRL
MONZOGRANITE
Legend
Fault
Saprock
Saprolite
Sediment
Diorite
Monzogranite
Volcaniclastics
Vein
> 0.4g/t Au
Drill hole
0 20 40 80
metres

Cowal Gold Corridor
Styles of Mineralisation



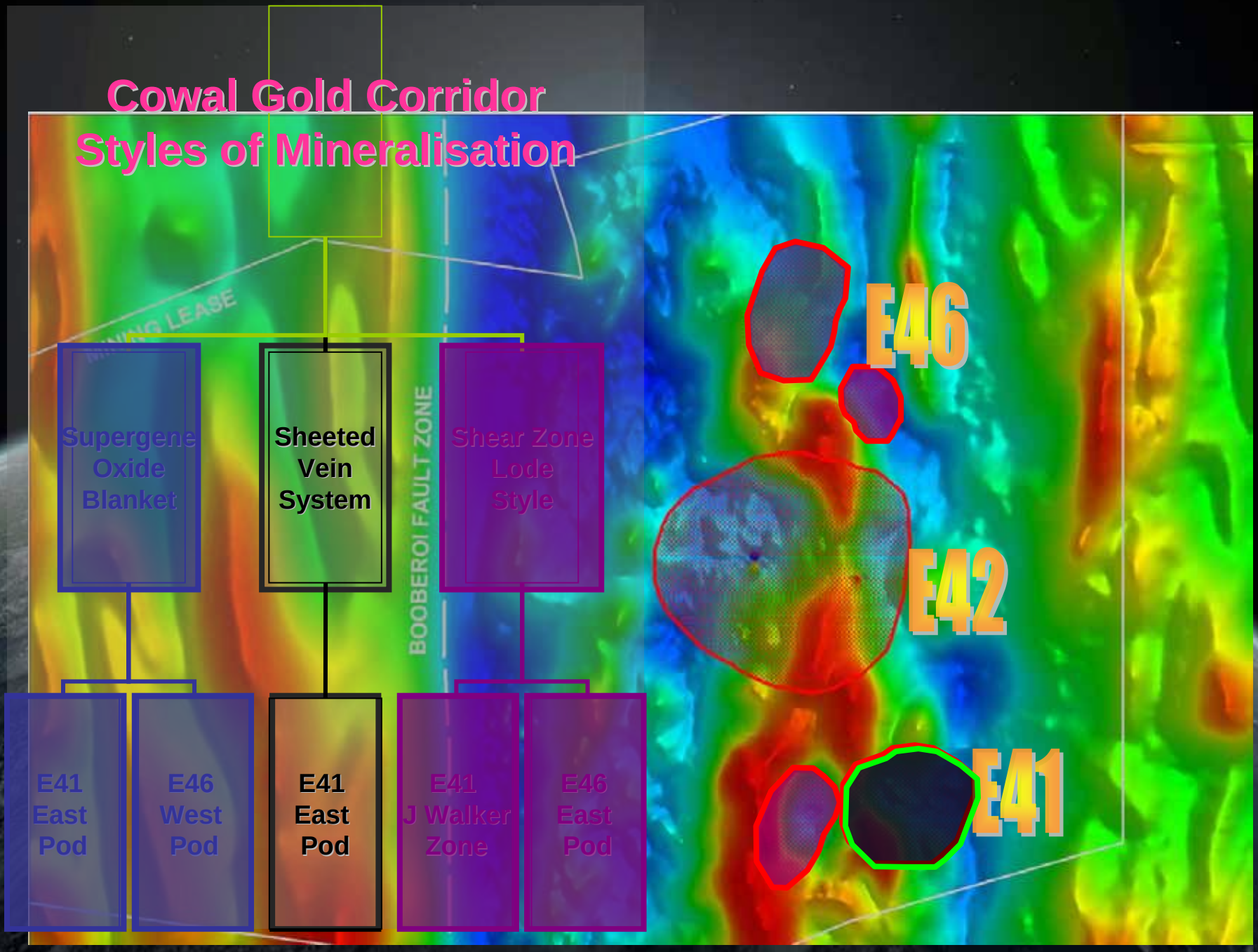
Supergene oxide zones

- Several hundred metres wide; 1-15m thick
- Associated with dark brown- black goethite stringer veining and goethite rich quartz veins



E46 West Pod

Cowal Gold Corridor
Styles of Mineralisation



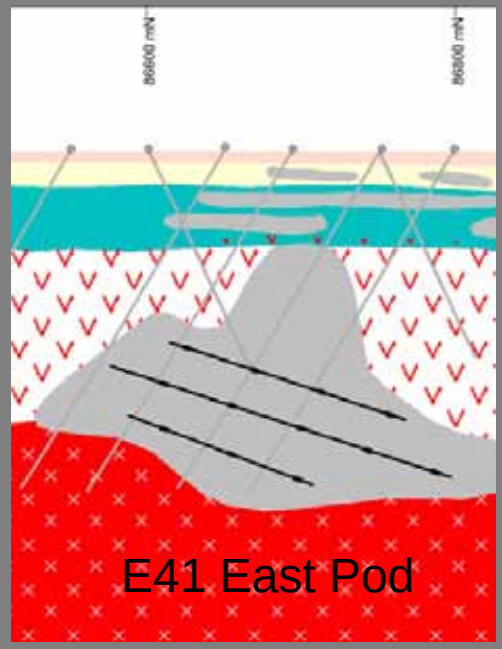
Sheeted Vein Systems

- Moderately dipping dilational veins with disseminated sulphides
- Calc-potassic alteration
- Overprinted by carbonate-base metals

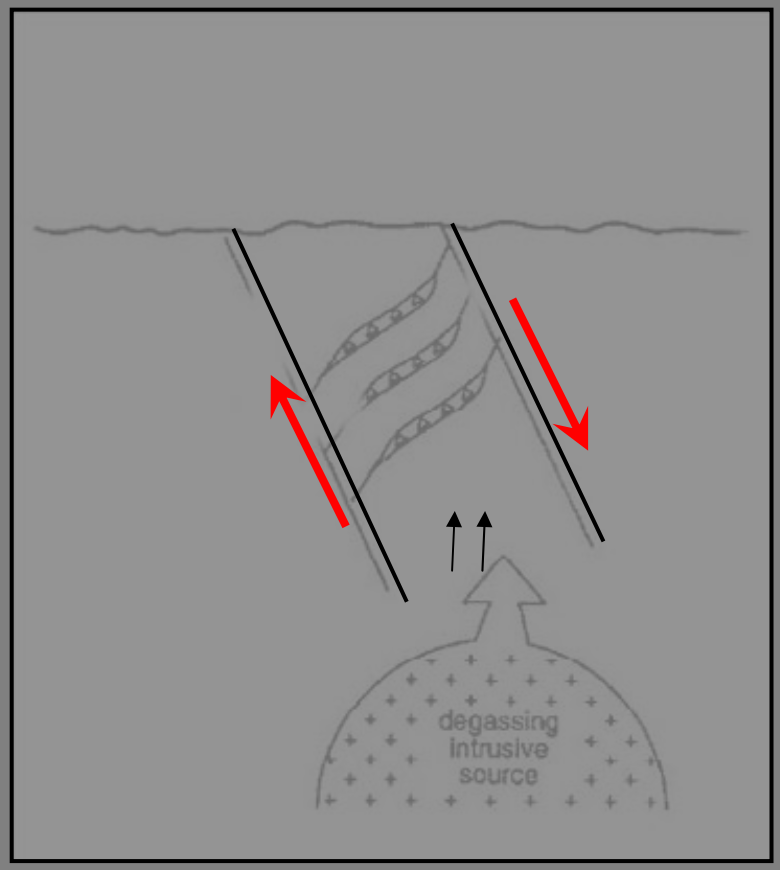
e.g. rare sphalerite

and galena, mainly

chalcopyrite



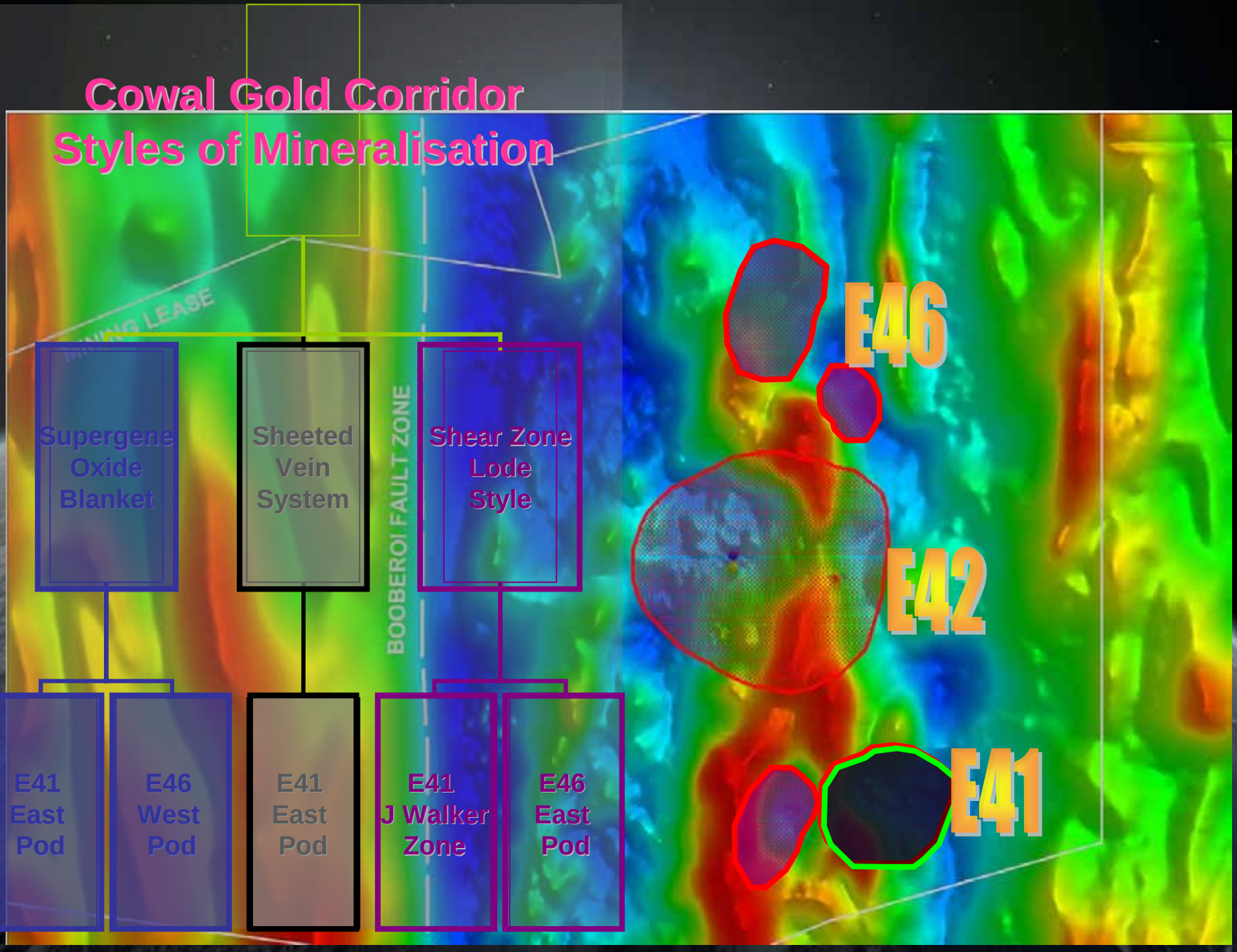
Sheeted Vein Systems



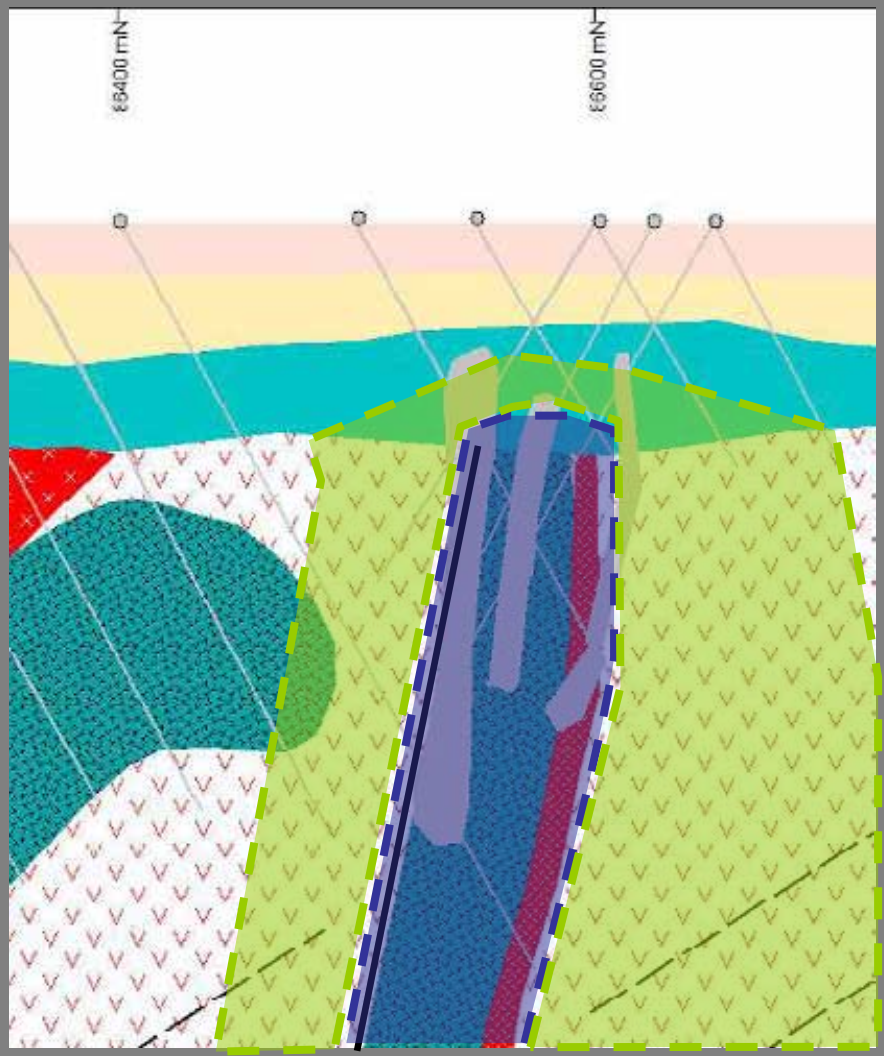
Adapted from Corbett and Leach, 1998

- Pre- Au mineralising event
- Rock competency – dilational veins in diorite and volcaniclastics
- Structures
- Degassing deep intrusive source

Cowal Gold Corridor
Styles of Mineralisation

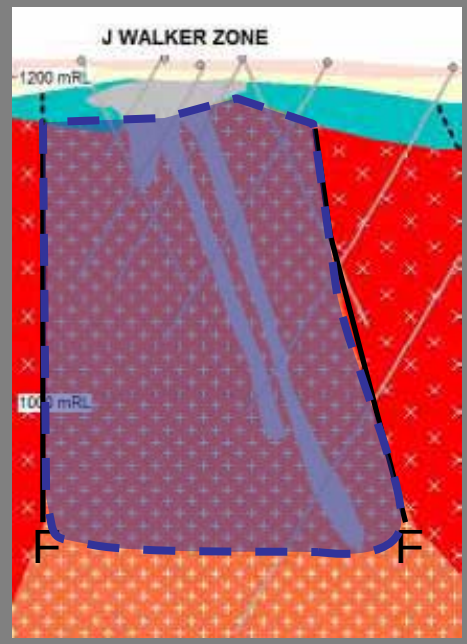


Shear zone lode style



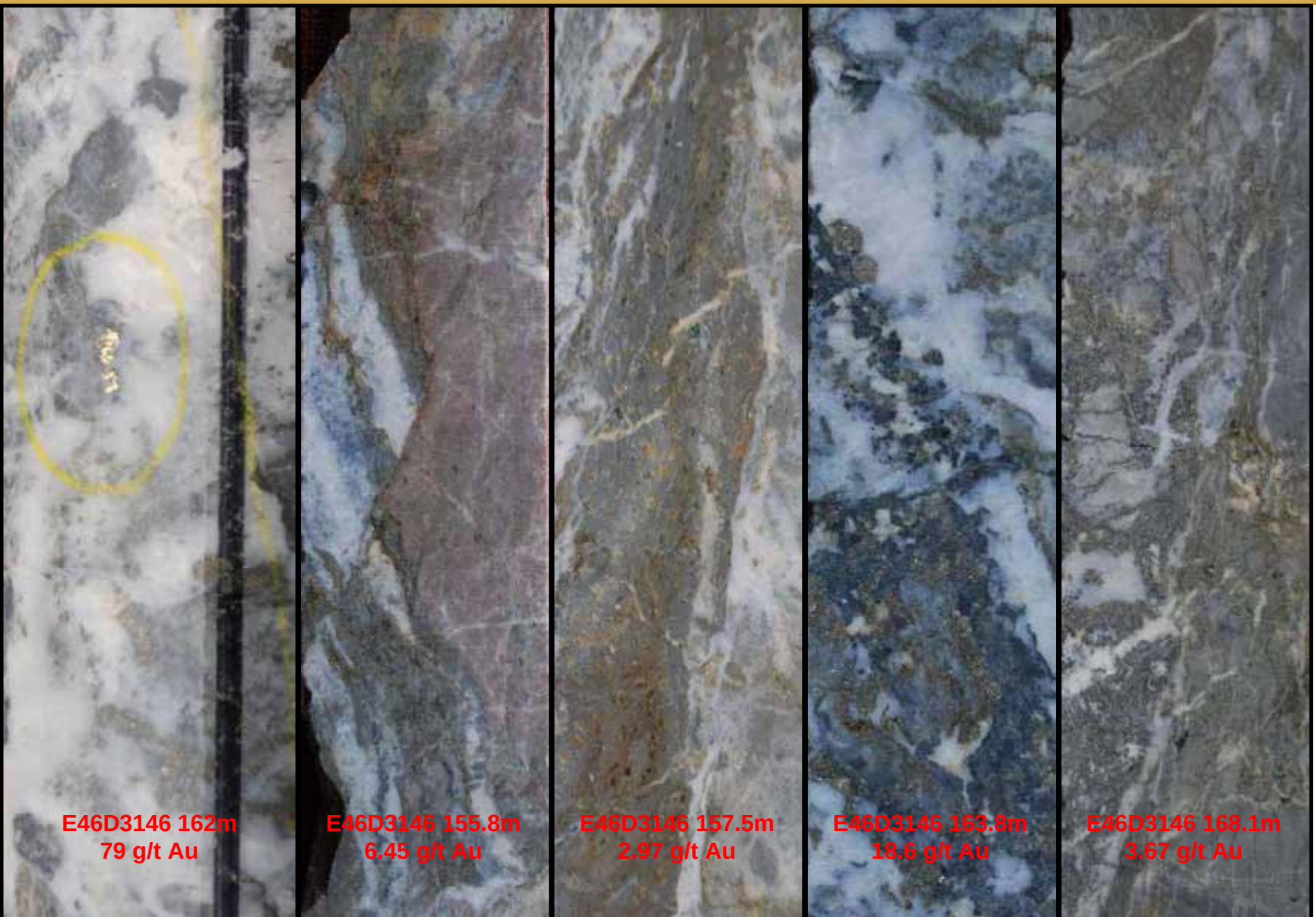
Fault

- Structurally controlled mineralisation
- Phyllic alteration: ser ± si ± py ± cb (ankerite)

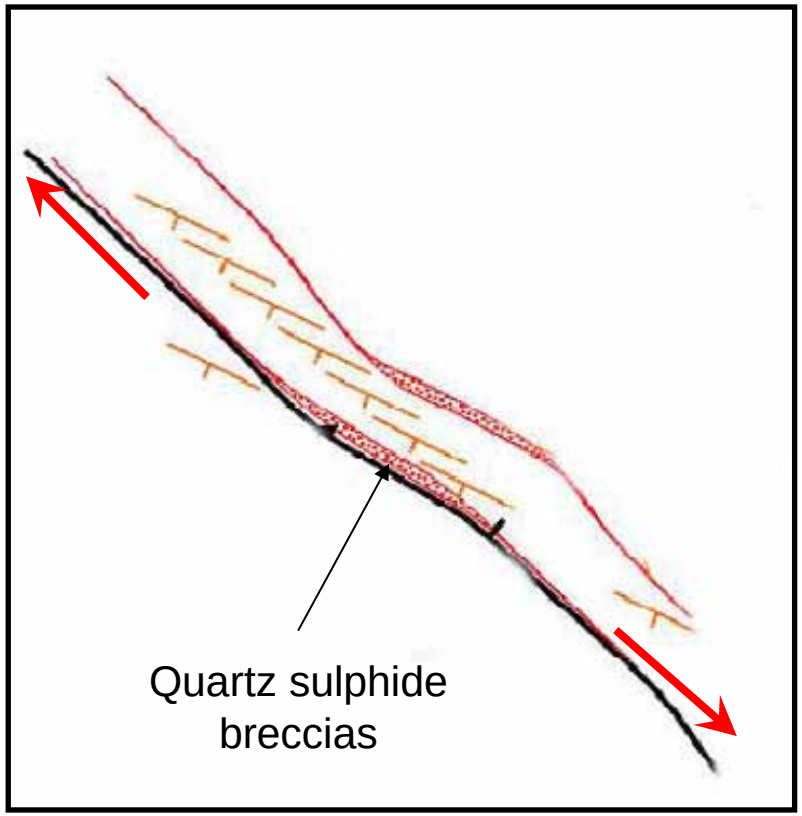


Qz-ank-py veins
E41 J Walker Zone

Shear zone lode style



Shear Zone Lode Style



Vein Paragenesis

Act-ab-mgt-chl alteration cross cut by qz-ksp-cb

Qz-py±cb vein hosted in act-ab-mgt-chl altered diorite

Qz-cb-py shear vein with minor cpy-gn-sph hosted in volcaniclastics

Late cb-ep vein cut by ep-cb-prehnite veins hosted in diorite

Calc-potassic alteration

Quartz-sulphide event

carbonate base metal sulphide event

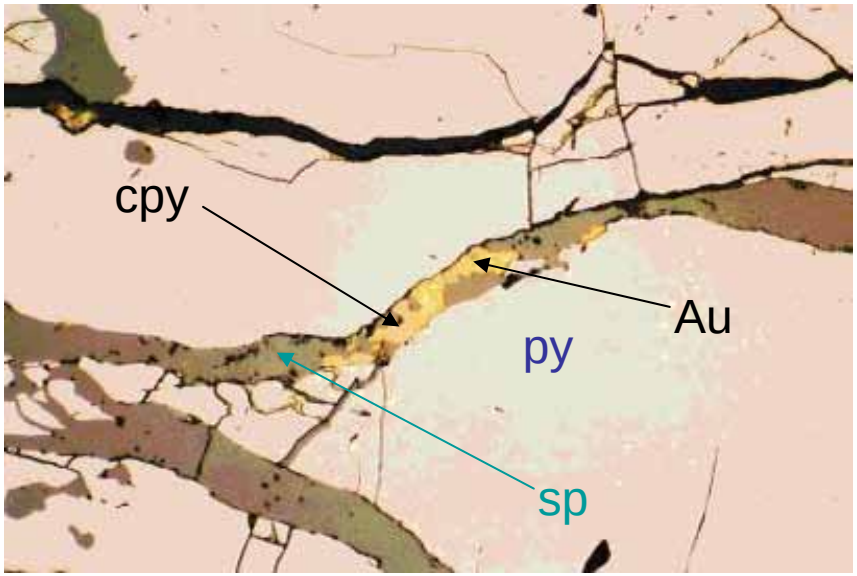
Epithermal association

High Temperature

Sheeted veins

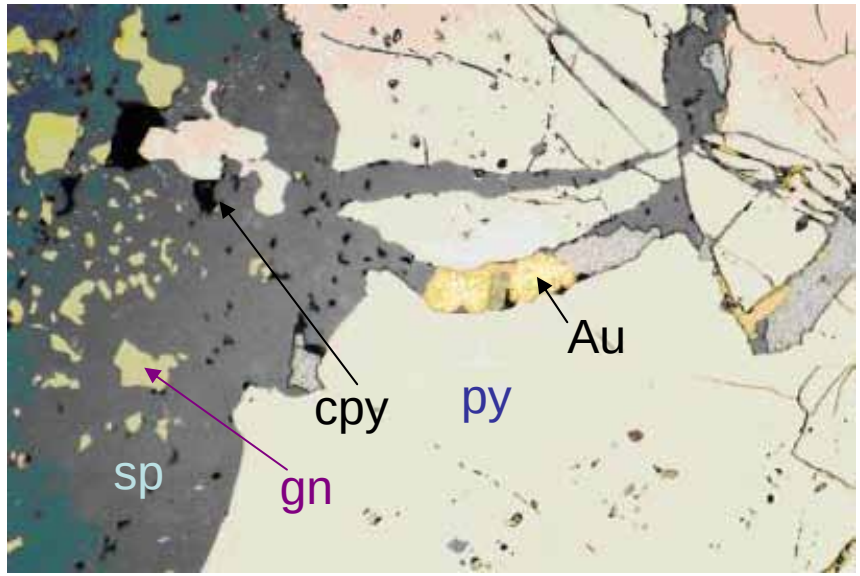
Taken from “Controls to Low Sulphidation Epithermal Au-Ag” Greg Corbett, 2006

Vein Paragenesis – CBMS Event



Dilational vein

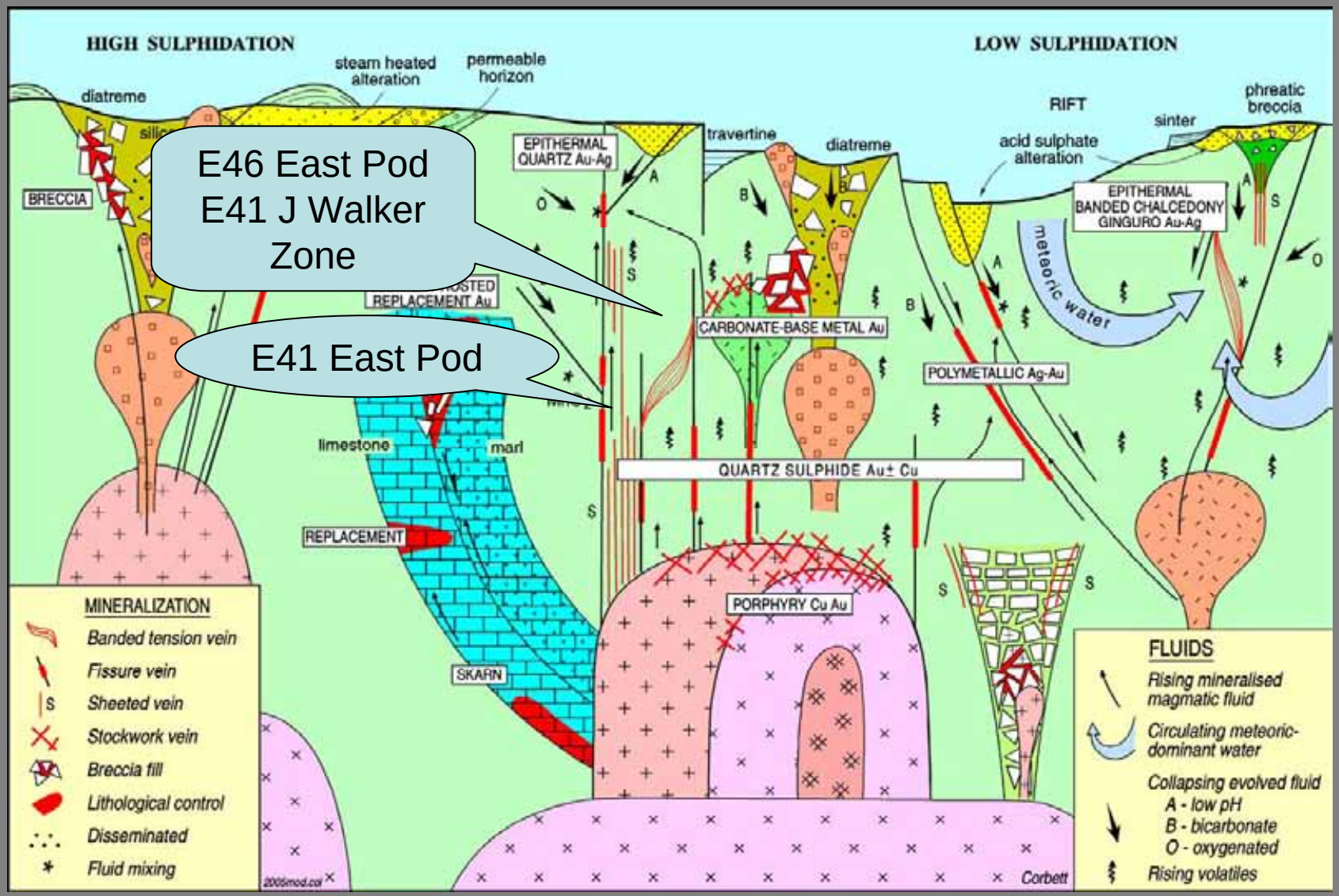
Fractured pyrite (creamy) containing vein fillings of sphalerite (mid-grey), gold (bright golden yellow) and a little chalcopyrite (yellow, less bright than gold). Plane polarised reflected light, field of view 0.25 mm across.



Quartz sulphide breccia

Fractured pyrite (creamy) invaded by sphalerite (mid-grey) with chalcopyrite inclusions, galena (pale grey) and gold (golden yellow). Largest gold grain is 25 µm across. Plane polarised reflected light, field of view 0.25 mm across.

Taken from “Controls to Low Sulphidation Epithermal Au-Ag” Greg Corbett, 2006



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Questions?