

## Ironstone hosted Cu-Au±Bi

**Province:**

**Potential:**

**Certainty:**

**Index (out of 10):**

Critical Elements (Assessment Criteria)	Identified	Not Identified, but likely	Unlikely	Weighting
Setting <ul style="list-style-type: none"> <li>• Extensional basins (predominantly Proterozoic intracratonic)</li> </ul>				
Source (fluid, metal, energy) <ul style="list-style-type: none"> <li>• Fluids: Basinal; metamorphic; magmatic (rift-fill rocks with evaporites; greenschist to amphibolite facies metamorphism; I-type oxidised granitoids)</li> <li>• Metal: basinal sequence; mafic rocks; I-type granitoids</li> <li>• Energy: deformation and metamorphism; granitoids</li> </ul>				
Fluid pathway <ul style="list-style-type: none"> <li>• Regional fault zones (first order to lower order)</li> <li>• Zones of regional Fe-Mg-K-Na metasomatism indicative of fluid channelling structures</li> </ul>				
Trap (any of the following) <ul style="list-style-type: none"> <li>• Structural: breccia zones, faults and shear zones</li> <li>• Chemical: Iron oxide rich rocks, carbonaceous rich (meta)sediments</li> </ul>				
Signs of mineralising process (any of the following, but if occurrences have been identified the level of certainty increases) <ul style="list-style-type: none"> <li>• Wall rock alteration (any of the following):</li> </ul>				

<ul style="list-style-type: none"> <li>• Regional Fe-Mg-K-Na metasomatism (At Tennant Creek no K-Na metasomatism)</li> <li>• Haematitic</li> <li>• Bleaching (silicification with K-and/or Na-feldspars, sulphides, magnetite and/or haematite)</li> <li>• Carbonate</li> <li>• Geochemical anomalies</li> <li>• Geophysical: magnetic</li> <li>• Known occurrences</li> </ul>				
<p>Preservation (not very important)</p> <ul style="list-style-type: none"> <li>• Age: all known deposits are of Palaeo-Mesoproterozoic age</li> </ul>				