

20 April 2023

ASX Code: COY

Mt Isa Project - Queensland Large geochemical and Airborne EM anomaly delineated at Shuffleton Prospect

Highlights

- Historical data analysis reveals the Shuffleton Prospect as 8 x 2.5 km coincident Airborne Electromagnetic (AEM) conductivity and stream/rock Cu geochemical anomaly.
- Shuffleton is situated along a segment of the Cloncurry Fault which is an important regional scale mineralisation fluid-flow conduit.
- Open file exploration reports map gossanous quartz breccia veins and altered amphibolite rock types are mapped at the prospect. At the historical Mt Kalkadoon Copper Mine a quartz vein infilled shear zone splay off the Cloncurry Fault hosts high grade oxide copper ore (up to 17% Cu) which was extracted in 1960s.
- Presence of small, high-grade historical Cu mine, favourable geology and coincident AEM, geochemical anomalies indicates Shuffleton is part larger mineralising system.
- Shuffleton has not been drill tested.

The Company is pleased to announce that the Shuffleton Prospect and a number of other potential copper gold targets have been identified by analysis of historical geological, geochemical and geophysical data, in the eastern successions, Mt Isa Inlier, Northwest Queensland.

Coppermoly's (ASX:COY) contiguous EPM 27835 (Foxes Creek) and 2022 EPM 27836 (Mount Tracey), located 55 km SSW of Cloncurry, are situated along the north-south striking Cloncurry Fault where highly prospective Proterozoic Staveley Formation, Corella Formation and Soldiers Cap Group metasediments are intruded by metal fertile Williams Batholith granites.

The Eastern Succession contains hundreds of Cu-Au occurrences and several important ore deposits including Ernest Henry (167 Mt @ 1.1% Cu; 0.54 g/t Au), Eloise (3.2 Mt @ 5.8% Cu; 1.5g/t Au; 19g.t Ag), Osborne (11.2 Mt @ 3.51% Cu; 1.49 g/t Au), Mt Elliot (3.3 Mt @ 3.6% Cu; 1.8 g/t Au) and Starra (6.9 Mt @ 1.65% Cu; 4.8 g/t Au) (Fig. 1).

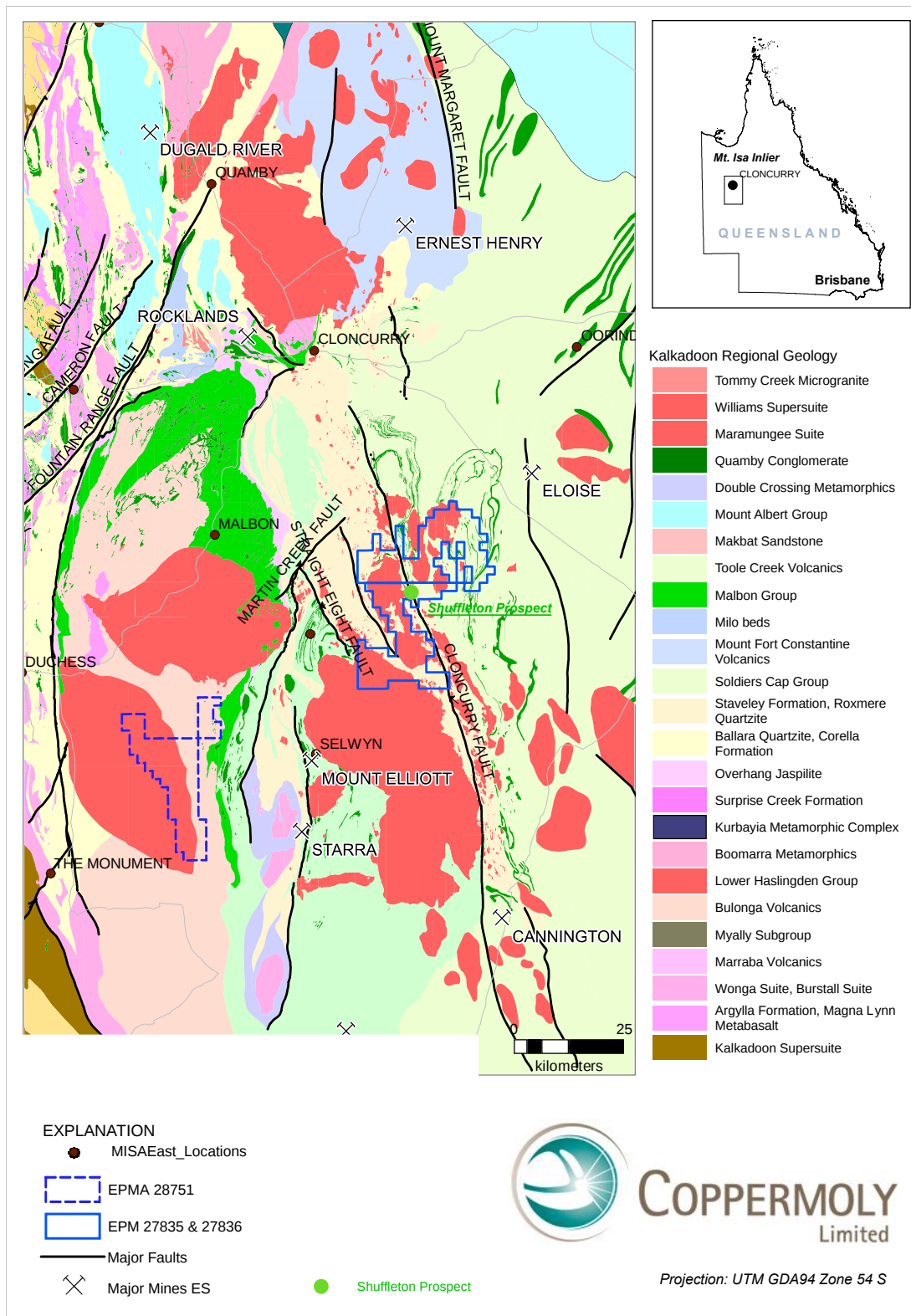


Fig. 1, Tenement location in the eastern Succession, Mt Isa Inlier, Northwest Queensland (Map compiled after Qld's Mines Department database - NWQ Geology 2011)

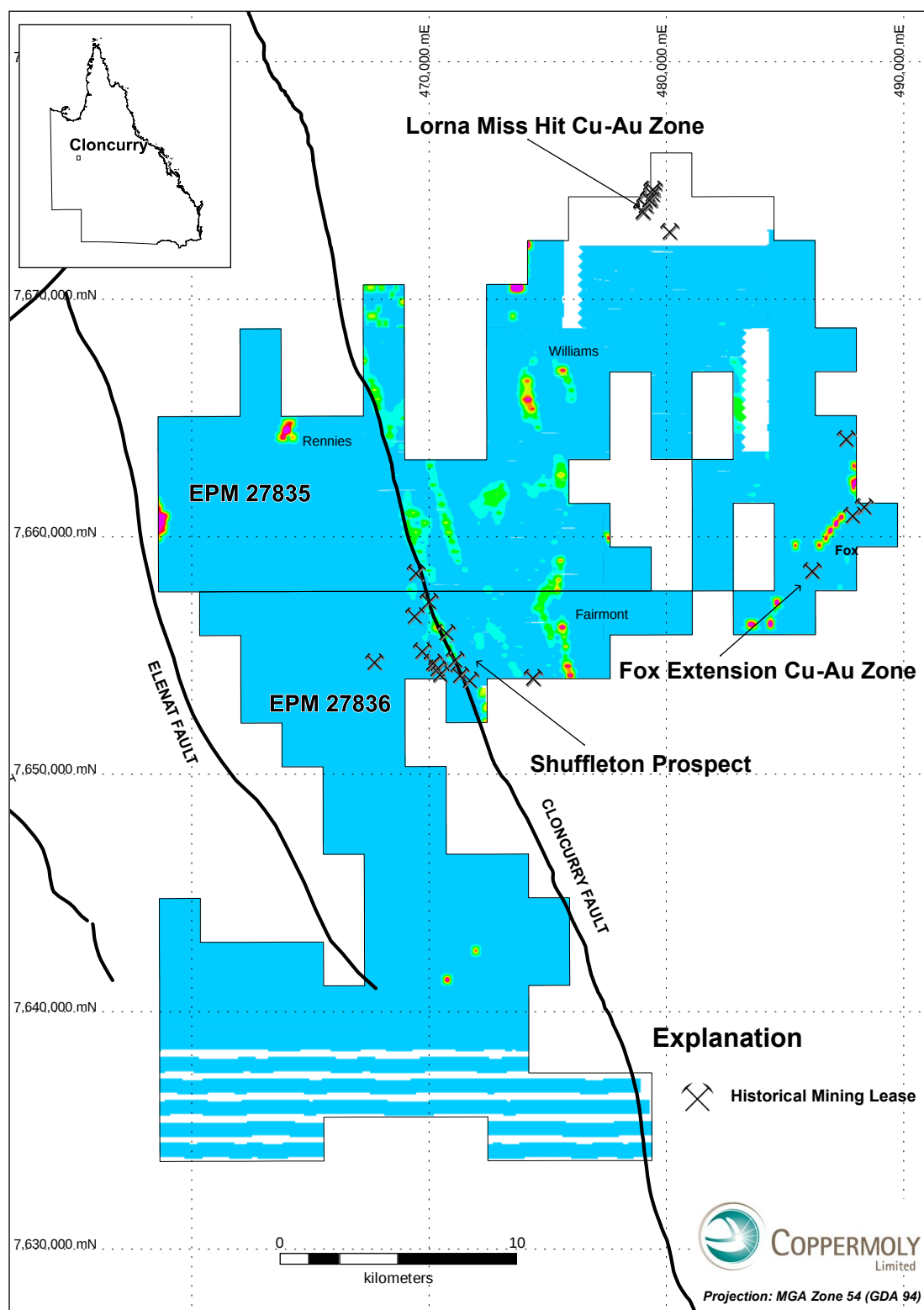


Figure 2, A stitched map of 3 Airborne EM and GEOTEM surveys showing AEM anomalies in tenement area.

The Cloncurry Fault, a major strato-tectonic structure along which major fluid flow and alteration has occurred, strikes for 150 km and is at least 20km in depth. Numerous Cu-Au and Ag-Pb-Zn mineral occurrences are scattered along and proximal to the Fault (Fig 1).

The company has completed the first phase of review of extensive historical data, including geochemical surveys, geological mapping and two abutting airborne GEOTEM surveys completed by BHP and Aberfoyle. Figure 2 shows a number of near surface middle to late time GEOTEM anomalies the majority of which have only been minimally investigated and not drilled.

A large airborne GEOTEM anomaly along the Cloncurry Fault Zone at Shuffleton are evident in an area of overlap of both the BHP (1992) and Aberfoyle (1990) surveys. The Shuffleton GEOTEM anomaly is coincident with a large steam sediment and rock Cu geochemical anomaly.

Shuffleton Prospect

The Shuffleton Prospect is situated along a NNE striking segment of the Cloncurry Fault (Fig 3).

Soldiers Cap Group, Staveley Formation, Corella Formation and Mesozoic cover stratigraphy intruded by a large part of the granitic Williams Batholith and numerous small mafic bodies are mapped in the area (Fig 3).

The Soldiers Cap Group comprises a fine- to coarse-grained, marine clastic sequence which includes iron formation and a suite of Fe-rich mafic igneous sills. The Soldiers Cap Group hosts numerous base metal ore bodies including Cannington and Eloise.

The calc-silicate rich Corella Formation contains significant discordant breccias in the district, in particular along and on the western edge of the Cloncurry Fault. These are polymictic sedimentary and porphyritic volcanic rock breccia with K-feldspar, albite and hematite alteration reminiscent of some of the rock types present at Ernest hennery and Mary Kathleen.

The Staveley Formation is dominated by a fine to medium grained, massive to well bedded immature and calcareous sediments with minor banded iron formations. They note ripple marks, halite casts, desiccation cracks and extensive brecciation.

The Williams Granite is 2km to the west of the Shuffleton Prospect is dated at 1530 ± 8 Ma. The Saxby Granite, which is also about 1530 Ma old, is mapped about 1~3 km to the north-east of Shuffleton. A number of minor dolerite/mafic intrusions are also present within and in the vicinity of the prospect.

In more detail, a 3.5km strike by up to 20m wide gossanous (iron stained) sub-vertical quartz breccia sheet is mapped along the interpreted Cloncurry Fault Zone at Shuffleton.

Out of a total of 50 rock chips samples taken within the prospect, the quartz breccia returned 16 with concentrations greater than 0.1% and a maximum of 15.9% Cu. (Fig 3).

The bulbous, NNW oriented 8 x 2km – 80# stream sediment Cu geochemical zone (n= 236,+ 50 ppm, max 235 ppm) is shown in Figure 4. The geochemical anomaly extends to include a part of the Staveley Formation and contact with the Williams Batholith. The eastern half of the geochemical anomaly follows the trace of the mapped Cloncurry Fault and surface mineralised quartz breccia. The eastern edge of the geochemical anomaly is also coincident with the similar strike length GEOTEM conductivity (Figure 4)

Within the prospect area, the Queensland Mines Department has recorded small historical production of copper from the Mt Kalkadoon Mine between 1940's and 1960s (Table 1 – source GSQ CR 5180) . The copper mine worked high grade surface oxide ores located approximately 800m west of the Cloncurry Fault.

Table 1. Production details of Mt Kalkadoon Copper Mine*

Year	Tons ore treated	Tons Cu recovered	Oz. Ag	% Yield
1941	21.74	4.46	31.48	20.5
1955	47.09	8.09		17
1955	20.88	6.43		30.8
1956	9.96	0.58		5.9
1960	5.83	1.08		18.6
1964	25.19	4.25		17
1965	10.3	1.08		10.8
1966	7.22	0.76		10.6
1968	6.39	0.32		5.1
Total	154.64	27.1		17.5

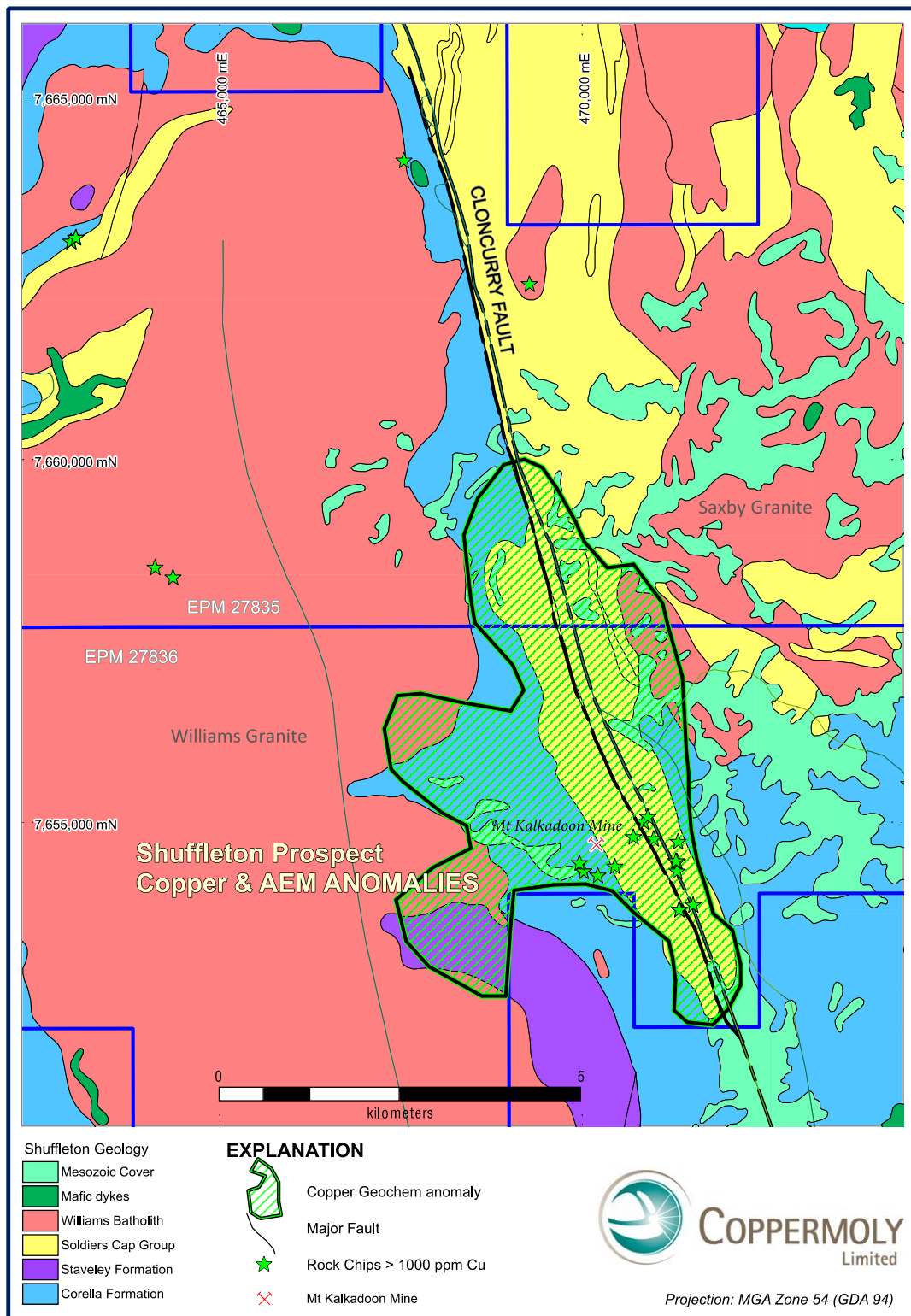


Figure 3 – Shuffleton Prospect - Geology with outline of stream geochemical anomaly overlain by location of highlight Cu rock chip results.

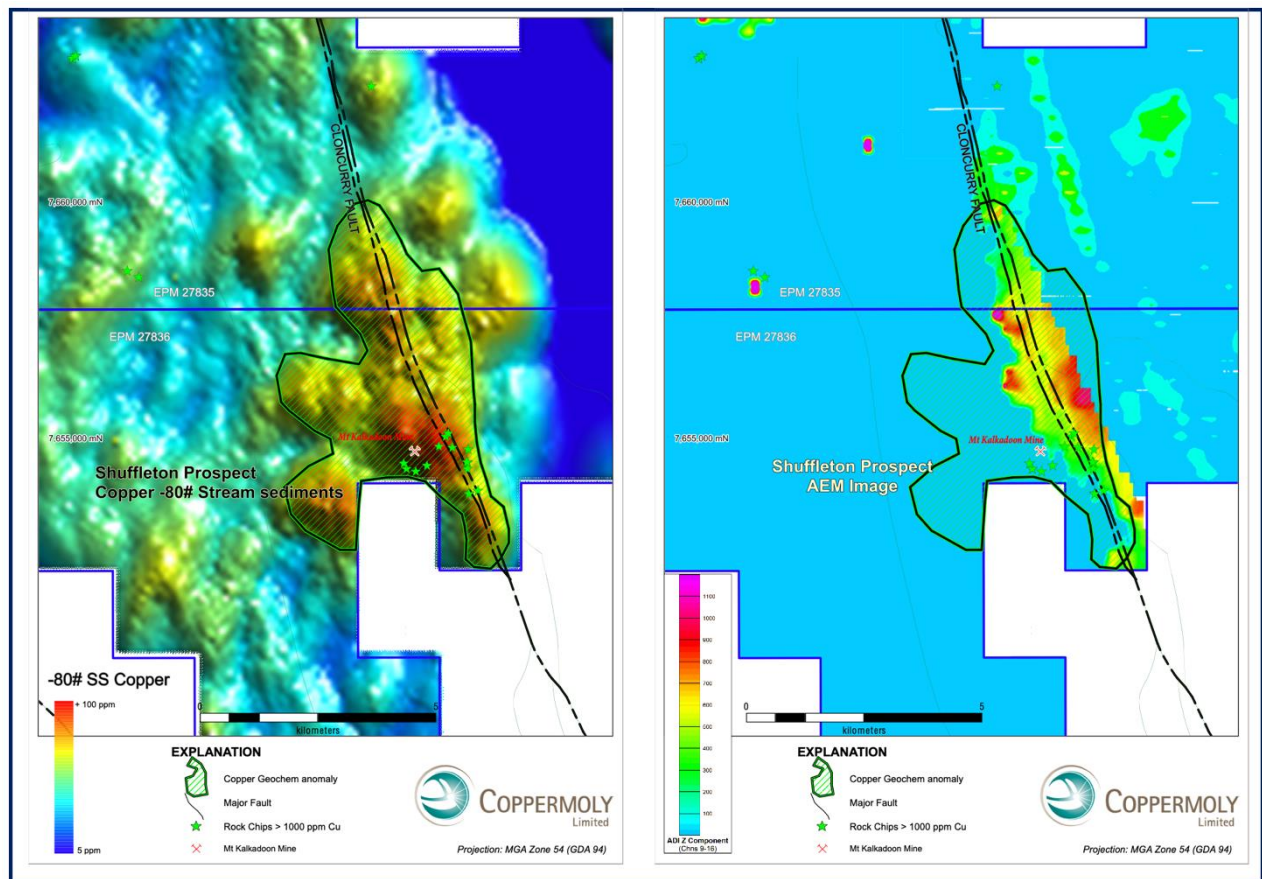


Figure 4 – Shuffleton Prospect anomaly (left: -minus 80 mesh (-80#) stream sediment Cu geochemical anomaly; right: Airborne GEOTEM mid to late time conductivity anomalies) overlain by location of highlight Cu rock chip results.

The mineralisation characteristics of known Isa Orogen Eastern Succession Cu-Au ore deposits such as the Ernest Henry and Starra include:

- Hosted within metasediments of Stavelly Formation / Corella Formation/ Upper Soldiers Cap Group or Cover Sequence 2 correlatives;
- Close to margins of fractionated syn to post tectonic 1600-1500Ma I-type granites;
- Close to minor mafic intrusives or concordant volcanics;
- Second order fault-shear structure connecting granite and host metasediment sequence;
- Significant coincident or adjacent EM conductivity anomalies;
- Local magnetic lows (magnetite alteration destruction) within generally highly magnetic domains

Most of those elements can be observed at the Shuffleton Prospect. Thus the large geochemical anomaly, surface gossan breccias along major fault zone, linear GEOTEM anomaly, and historical copper mine warrants detail exploration and potential drill testing.

Conclusions

The identification of Shuffleton Prospect provides a unique “turn-key” opportunity to investigate a large underexplored Cu prospect in highly competitive Mt Isa Eastern Succession which can be rapidly explored.

“We are now convinced there will be several high quality, near surface drill targets quickly defined at Shuffleton with excellent mineral potential. It is very early days and continuing detailed analysis of records from over a hundred historical tenements are expected to reveal further exploration opportunities with Coppermoly’s EPMs” Dr Huang commented.

Authorised by the Board of Coppermoly Limited

For further information please contact

Dr. Wanfu Huang
Managing Director
wfhuang@coppermoly.com.au

- **END** -

Competent Persons Statement

The information in this announcement that relates to Exploration Potentials is based on information compiled by Dr. Wanfu Huang, who is a Member of the Australian Institute of Mining and Metallurgy (AusIMM), Member Number 333030. Dr. Huang has sufficient experience which is relevant to the style of mineralisation under consideration and to the activities undertaken to qualify as a Competent Person as defined in the 2012 Edition of the ‘Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves’. Dr. Huang is a full-time employee to Coppermoly and consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to historic exploration results was prepared and first disclosed under a pre-2012 edition of the JORC code. The data has been compiled and validated. It is the opinion of Coppermoly that the exploration data is reliable. Nothing has come to the attention of Coppermoly that causes it to question the accuracy or reliability of the historic exploration result

Appendix 1

Tenements in Mt Isa, Queensland

Exploration Permit No.	Project name	Expiry Date	Area	Region
EPM27835	Fox Creek	4-Oct- <u>2026</u>	320 km ²	Mt Isa, Queensland
EPM27836	Mount Tracey	7-Mar- <u>2027</u>	294 km ²	Mt Isa, Queensland
EPM28751	Windy Hill	Application lodged on 16/03/2023	320 km ²	Mt Isa, Queensland