

## INDEPENDENT TECHNICAL REPORT ON EL2/2018 TASMANIA AUSTRALIA



Prepared by Mining Associates Ltd

for

CopperCorp Resources Inc

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## 1 SUMMARY

This is an independent technical report (“Technical Report”) on Exploration Licence EL2/2018 (“the Property”) in western Tasmania prepared in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI43-101).

Exploration Licence EL2/2018 is located on the west coast of Tasmania, Australia approximately 100km south of Burnie at latitude 41° 50’ S, longitude 145° 8’ E covering an area of 95km<sup>2</sup> over the Arthur Metamorphic Lineament. The property is held by Georgina Resources, a wholly owned subsidiary of CopperCorp Resources Inc. (the “Company”).

### 1.1 PROJECT HISTORY

Prospecting and early mining activity commenced in the 1880’s not long after the discovery of tin at Mt Bischoff. Modern mineral exploration of the Arthur Metamorphic Lineament commenced in the early 1960’s following government sponsored airborne magnetic surveys. Initial exploration targeted magnetite iron ore mineralization. CRAE and later workers also recognised the potential for Iron oxide copper-gold (“IOCG”) mineralization of Tennant Creek or Starra style.

Most exploration on the Property is of a reconnaissance nature involving regional airborne geophysics, regional stream sediment sampling with follow up gridding, soil and rock chip geochemistry on several promising drainage anomalies and sampling of old mine workings.

The Alpine Prospect was discovered by CRAE/Geopeko in the mid 1980’s after soil geochemistry identified Cu-Co anomalies associated with magnetite mineralization. CRAE/Geopeko drilled 2 diamond drill holes identifying significant mineralization. Stellar Resources completed an additional 20 diamond drill holes defining significant continuous zones of sulphide-magnetite-hematite copper mineralization.

### 1.2 GEOLOGY

The Property covers the southern extension of the Proterozoic Arthur Metamorphic Lineament, a major tectonic structure transgressing NW Tasmania. The Arthur Metamorphic Lineament consists of metamorphosed Cambrian mafic volcanics, carbonates and sediments of the Ahrberg Group in the east with the Bowry Formation and a high strain part of the Oonah Formation known as the Keith Schist to the west. The Bowry and Lucy Formations consist of magnetite-pyrite bearing mafic schists forming prominent magnetic lineaments. The Bowry Formation is host to widespread magnetite-sulphide-silicate mineralization with affinities to IOCG systems.

The lineament is associated with isoclinal folding and a strong penetrative cleavage generally striking NNE and dipping west to the north of the Pieman Dam. Subsequent deformation in the Middle Devonian as part of the Tabberabberan Orogeny (~370 Ma) has folded the Arthur Metamorphic Lineament to an essentially east-west strike in the south of the Property.

### 1.3 EXPLORATION

The Company has completed data collation and modelling of historic data on the Alpine Prospect and commenced preliminary collation and assessment of the regional Rocky River, Lucy Spur and Doctors Creek areas. Numerous geochemical and geophysical targets are at an early stage of exploration and warrant additional investigation for IOCG mineralization. The Alpine Prospect is a more advanced exploration project and requires infill and exploration drilling designed to provide data for potential resource estimation.

The company completed 35km of line cutting in 2021 followed by a ground gravity geophysical survey. A strong bouguer high was associated with the Alpine Prospect.

## 1.4 CONCLUSIONS

The Alpine Deposit on the Property contains significant copper mineralization associated with IOCG style deposits. The work of the Company and previous owners has delineated an advanced target at the Alpine Prospect along with other early stage regional prospects. Additional work is warranted to determine if economic mineralization exists on the Property. The next phase of work for the Alpine Prospect requires infill drilling and technical studies designed to provide adequate information to assess the resource potential.

There has been insufficient exploration to define a Mineral Resource at the Alpine Prospect. An infill drilling program designed to provide information for resource estimation has been planned. However, it is uncertain if further exploration will result in the determination of a Mineral Resource.

## 1.5 EXPLORATION RECOMMENDATIONS

Exploration activities on the Property should include:

- Infill and exploration diamond drilling of the Alpine Prospect including 18 diamond drill holes for a total of approximately 4,000m
- Technical studies to support potential resource estimation
- 35km of grid based geological mapping, geophysical surveys, and soil geochemistry

### Proposed 12 month Exploration Program and Budget (AUD\$)

| Prospect           | Work Programme  | Total              |
|--------------------|---|--------------------|
| Alpine             | Exploration personnel, management, and consultants                        | \$330,000          |
| Alpine             | Assays and geochemistry   | \$200,000          |
| Alpine             | Geophysics (gravity and IP)   | \$190,000          |
| Alpine             | Track cutting and gridding  | \$95,000           |
| Alpine             | Diamond drilling (4000m)  | \$600,000          |
| Alpine             | Environment land access and rehab   | \$25,000           |
| Alpine             | Metallurgical studies   | \$40,000           |
| Logistical Support | Logistics and Administration (Exploration office, vehicles, and supplies) | \$170,000          |
| Contingency        | 10% Contingency   | \$166,000          |
| GST                | <b>10% GST</b>  | <b>\$184,000</b>   |
| <b>Total</b>       |   | <b>\$2,000,000</b> |

## **2 INTRODUCTION**

### **2.1 ISSUER**

At the request of CopperCorp Resources Inc. (“CCR” or the “Company” or the “Issuer”) Mining Associates Pty Ltd (“MA”) were requested to complete an independent technical report on Exploration Licence EL2/2018 (the “Property”) in western Tasmania prepared in accordance with Canadian National Instrument 43-101 Standards of Disclosure for Mineral Projects (“NI43-101”).

Exploration Licence EL2/2018 is located on the west coast of Tasmania, Australia approximately 100km south of Burnie at latitude 41° 50’ S, longitude 145° 8’ E covering an area of 95km<sup>2</sup> over the Arthur Metamorphic Lineament (“AML”). The property is held by Georgina Resources Pty Ltd., a wholly owned subsidiary of CopperCorp Resources Inc.

MA has not been requested to provide an Independent Valuation, nor has MA been asked to comment on the fairness or reasonableness of any vendor or promoter considerations, and therefore no opinion on these matters has been offered.

### **2.2 TERMS OF REFERENCE**

This Independent Technical Report (the “Report”) has been prepared by MA for the Company in compliance with disclosure requirements of NI43-101. MA was commissioned by the Company in August 2020 to prepare this Technical Report to meet the requirements of section 4.2.1 (a) of NI43-101 for the purpose of its initial public offering (“IPO”).

The present Technical Report is prepared in accordance with the requirements of NI 43-101 and in compliance with Form 43-101F1 of the Ontario Securities Commission (“OSC”) and the Canadian Securities Administrators (“CSA”).

### **2.3 INFORMATION USED**

This Report is based on technical data provided by the Company to MA. The Company provided open access to all the records necessary, in the opinion of MA, to enable a proper assessment of the project. The Company has warranted in writing to MA that full disclosure has been made of all material information and that, to the best of the Company’s knowledge and understanding, such information is complete, accurate and true.

Additional relevant material was acquired independently by MA from a variety of sources. Historical documents and data sources used in the preparation of this technical report are listed in Section 27: References. This material was used to expand on the information provided by the Company and, where appropriate, confirm or provide alternative assumptions to those made by the Company.

### **2.4 CURRENT PERSONAL INSPECTION BY QUALIFIED PERSONS**

The Qualified Person for this Technical Report is Mr Tim Callaghan, as defined in the regulations of NI43-101. The current personal inspection of the Property was conducted by Mr. Callaghan between the 30th August and 1st September 2020.

Mr. Callaghan reviewed the geological setting, examined rock specimens and field locations of interest, and collected several independent samples for verification purposes.

## **3 RELIANCE ON OTHER EXPERTS**

The author has relied on reports, opinions or statements of other experts who are not Qualified Persons for information concerning legal, environmental, political and taxation issues and factors relevant to this Report.

MA has assumed, and relied on the fact, that all the information and existing technical documents listed in the References section of this Technical Report are accurate and complete in all material aspects. While MA has carefully reviewed all the available information presented to us, MA cannot guarantee its accuracy and completeness. MA reserves the right but will not be obligated to revise the Technical Report and conclusions if additional information becomes known to us after the date of this Technical Report.

Information relating to tenure was reviewed by means of the public information available through the Mineral Resources Tasmania (“MRT”) website at: <http://mrt.tas.gov.au> . MA has relied upon this public information, as well as tenure information from CCR and has not undertaken an independent detailed legal verification of title and ownership of the Alpine Property ownership.

Select technical data, as noted in the Technical Report, were provided by CCR and MA has relied on the integrity of such data. A draft copy of this Technical Report has been reviewed for factual errors by CCR and MA has relied on CCR’s knowledge of the Property in this regard. All statements and opinions expressed in this document are given in good faith and in the belief that such statements and opinions are not false and misleading at the date of this Technical Report.

#### **4 PROPERTY DESCRIPTION AND LOCATION**

The Property is covered by Exploration Licence EL2/2018 and is located over the southern end of the Arthur Metamorphic Lineament (AML) in western Tasmania. It covers an area of 95km<sup>2</sup> centred on several linear aeromagnetic features associated with magnetite bearing mafic schist. The EL is located 30km northwest of Zeehan and 30km south of the Savage River magnetite mine on the west coast of Tasmania. The district hosts many mineral deposits including the world class Renison Bell and Mt Bischoff tin deposits, Rosebery and Hellyer polymetallic sulphide deposits as well as many other granitic and volcanogenic related deposits.

The License is not subject to any back-in rights, payments, or other agreements and encumbrances aside from a 1.5% net smelter royalty detailed in Section 4.1.

There are no significant factors and risks that may affect access, title, or the right or ability to perform work on the property.

##### **4.1 PROPERTY TENURE**

The Property is covered by EL2/2018 (95km<sup>2</sup>) as shown in Table 4-1 and Figure 4-1. The tenement’s status has been verified by MA, through the publicly available information on MRT’s online tenement viewing portal at: <http://mrt.tas.gov.au> This includes registered ownership of the leases and licence boundaries.

Title to the Property is held 100% by Georgina Resources, a wholly owned subsidiary of CopperCorp Inc. The previous vendors of the Property, Metal Ventures Pty Limited, Kenneth John Maiden, Halona Holdings Pty Ltd and Pepita Dorothy Maiden hold a 1.5% Net Smelter Royalty on any future production. The Company has an option to purchase the royalty for CAD\$3M.

**Table 4-1. Details of Georgina Resources Exploration Licence**

| Licence ID | Name of area | Area (km <sup>2</sup> ) | Issue Date | Expiry Date | GR Ownership % | Annual rent (AUD) | Minimum expenditure (AUD) |
|------------|--------------|-------------------------|------------|-------------|----------------|-------------------|---------------------------|
| 102031     | EL2/2018     | 95km <sup>2</sup>       | 6/8/2018   | 5/8/2023    | 100            | \$5,586           | \$47,500                  |

## 4.2 PROPERTY RIGHTS AND OBLIGATIONS

The Property is located on crown land designated mainly as forest reserve, future forest production and regional reserve, all of which are available for exploration and mining activities. A small portion of EL2/2018 is covered by a Hydro Electric impoundment (Lake Pieman) and the Pieman River Conservation Area.

The Property is located on land designated for permanent timber production or future timber production.

A new transmission line has been constructed over the Alpine prospect following the Heemskirk road. The transmission line and road would need to be diverted if mining operations were to be carried out at the Alpine Prospect.

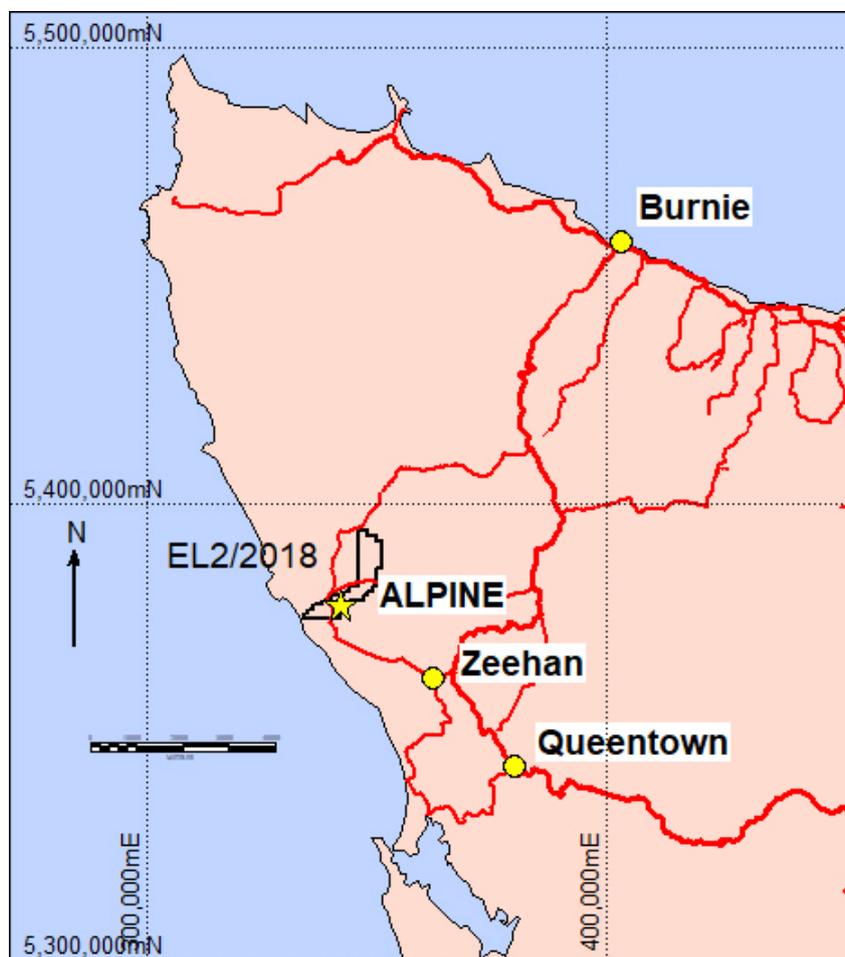


Figure 4-1. Property location and access

### 4.2.1 Exploration Licence Rights

Mineral exploration and mining in Tasmania are regulated by the State Government Mineral Resources Development Act 1995. MRT, a division of the Department of State Growth, is responsible for the administration and regulation of mining and exploration activities in the state.

Exploration licences in Tasmania are initially granted for a period of five years. The term of an exploration licence may be extended at the discretion of the Minister if the holder is able to show grounds for extension.

Exploration licences may be granted for one or more of the following mineral categories:

- Category 1: metallic minerals and atomic substances
- Category 2: coal, peat, lignite, oil shale and coal seam gas
- Category 3: rock, stone, gravel, sand and clay used in construction, bricks and ceramics
- Category 4: petroleum products except oil shale
- Category 5: industrial minerals, precious stones, semi-precious stones
- Category 6: any geothermal substance

Only one exploration licence may be issued for the same category of minerals on the same land. Within the area of the licence, the holder of the licence has the exclusive right to apply for a mining lease in respect of the category of minerals specified in the licence. Exploration licences can be issued for different categories of mineral over the same land.

The holder has the right to object to the issue of an exploration licence or a mining lease for other mineral categories in the licence.

EL2/2018 is a Category 1 Mineral Lease giving the owner the rights to all metallic minerals and atomic substances within the lease area.

- (1) A licence authorises the holder of the licence, a person authorised by the holder of the licence, and a person acting under a contract of service, or a contract for services, with the holder of the licence:
  - (a) to explore, in accordance with the conditions of the licence, in the area of land specified in the licence for minerals, or minerals within the category of minerals, specified in the licence; and
  - (b) to enter on, and pass over, Crown land for that purpose, in accordance with the conditions of the licence; and
  - (c) subject to subsection (2) , to enter on, and pass over, private land, in accordance with the conditions of the licence, for that purpose.
- (2) A person may only enter on, or pass over, private land by giving written notice in an approved form to the owner or occupier of the land 14 days or any shorter period the owner or occupier allows before doing so.
- (3) A person must not hinder or obstruct a licensee from carrying out any activity under the licence.

#### **4.2.2 Exploration Licence reporting requirements**

GR (CCR) is obligated to provide the MRT with annual reports, detailing exploration activities completed, proposed exploration programs and expenditures.

An annual report must be submitted by the anniversary date of the licence. The annual report must be a full technical report detailing all exploration undertaken and results obtained during the year. The annual report must also include details of all work planned for the coming year. The annual report is to be in accordance with the reporting guidelines, including stipulated data submission formats. If the area of the licence is to be reduced, the licence holder must submit an application to surrender and must submit a final report on the area to be relinquished.

At the end of the five year term an application for an extension of term must be submitted with a work program if the licence is to be retained.

### 4.3 ENVIRONMENTAL LIABILITIES

Mining and exploration are not permitted in the Pieman River State Reserve which covers a 1000m strip along the Pieman river. The Property is located 5km southwest of the Reserve and Lake Pieman Dam.

To the extent known by MA, there are no known environmental liabilities on the Property.

A security deposit must be lodged before a licence can be granted. The quantum of the deposit is determined by the size of the area and the program to be carried out. The security deposit may be used to remedy damage to private property or to the environment caused by exploration activities if this is not made good by the explorer.

Licence holders must obtain written approval from MRT prior to undertaking any on-ground exploration. Work consistent with mineral exploration includes:

- Conducting geological, geophysical, geobotanical and geochemical surveys
- Drilling
- Taking samples for the purpose of chemical or other analysis
- Using appropriate instruments, equipment, and techniques
- Extracting and removing from the land material, mineral or other substances for testing

Approvals are granted provided activities are governed by MRT's 'Mineral Exploration Code of Practice.'

## **5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY**

### **5.1 PHYSIOGRAPHY**

The Property is located on the west coast of Tasmania on a Tertiary peneplane of approximately 200m altitude. The flat peneplane is incised by several steep gorges, the largest of which is the Pieman River Gorge located 5km northeast of the Property. The northern part of the Property is remote and steeply incised by the Meredith, Whyte and Rocky Rivers and their tributaries. The area is characterised by moderate to rugged topography covered by temperate rain forest and thick regrowth after substantial bushfires.

### **5.2 CLIMATE**

Prevailing climate is wet temperate with rainfall averaging 2-3m annually. Despite the high rainfall, the area can be accessed and explored throughout the year.

### **5.3 LOCAL RESOURCES AND INFRASTRUCTURE**

All necessary supplies and hire equipment, such as drill rigs, are readily available in north western and western Tasmania. The west coast of Tasmania has had a long history of mining and exploration dating back to the 1880's. Several drilling, contact mining and earthmoving companies experienced with the conditions are based within a few hours of the project area.

The region, although rugged, has a major road constructed by the Hydro Electric Commission (HEC) in the 1980's running through it with several all-weather dirt roads accessing forestry areas. The Reece Dam and power station on Lake Pieman and newly commissioned Heemskirk Wind Farm are in the vicinity with high voltage transmission lines connected to the state grid.

Access to the southern portion of the Property is via the sealed all weather dual lane Heemskirk Road. Gravel forestry and drill access tracks cover most of the Alpine Prospect. Access to the remote northern part of the Property is via the Corinna Road. Much of the northern EL has difficult 4WD access with some remote areas requiring helicopter supported exploration and cut foot tracks.

TasRails' Emu Bay rail line is located approximately 50km to the east with rail heads at Melba Flats and Boco.

## 6 HISTORY

The following description of historic exploration activity in the Property area is largely taken from historic exploration reports located on MRT's digital database.

A summary of historic exploration carried out on the Alpine Deposit, the primary focus for the Company is given in Table 6-1.. Historic regional exploration on the northern part of the Property is summarised in Table 6-2.

**Table 6-1. Summary of historical exploration activity, Alpine Prospect**

| Company or Organisation   | Period         | Description of Work Completed  |
|---------------------------|----------------|--|
| <b>CRA Exploration</b>    | 1983 - 1985    | Aeromagnetic survey followed by 8 lines of gridding with soil geochemistry, ground magnetics and ground EM survey. Two diamond drillholes (AP001 and AP002) intersecting magnetite-chalcopyrite-pyrite mineralization. |
| <b>Outokumpu</b>          | 1989 - 1993    | Gridding, soil geochemistry, telluro-EM, stream sediment sampling and mapping.   |
| <b>Titan-Goldstream</b>   | 1994 - 2002    | Limited soil geochemistry and mapping.   |
| <b>Stellar Resources</b>  | 2003 - 2017    | Nineteen diamond holes on or near Alpine Prospect  |
| <b>Georgina Resources</b> | 2018 - present | Literature and drill core review, data compilation and metallurgical sampling.   |

**Table 6-2. Summary of historical exploration activity, Regional EL2/2018**

| Company or Organisation     | Period      | Description of Work Completed  |
|-----------------------------|-------------|--|
| <b>Rio Tinto Zinc</b>       | Pre 1961    | Aeromagnetic survey followed by ground reconnaissance and diamond drilling of magnetite-pyrite mineralization at Rocky River Iron deposit. Two diamond holes (RR1 and RR2) completed.                                |
| <b>IMI/Savage Resources</b> | 1961 - 1988 | Gridding, rock chip sampling and mapping of magnetite-pyrite lenses in Bowry Formation. Most drilling on current EL was at Rocky River and Whyte River Iron prospect.  |
| <b>Aberfoyle Resources</b>  | 1989 - 1990 | Limited stream sediment (23 samples) and rock chip (34 samples) geochemistry.  |
| <b>Outokumpu</b>            | 1989 - 1993 | Gridding, soil geochemistry, telluro-EM, stream sediment sampling and mapping.   |
| <b>Fodina</b>               | 1993        | Geological reconnaissance sections between Whyte River and Pieman River  |
| <b>Goldstream/Titan JV</b>  | 1994 - 2002 | Stream sediment sampling between Browns Plain and Pieman River identified gold anomalies at Lucy Spur and Rocky River. 3 DDH at Lucy Spur and 3 DDH at Rocky River identified low order Au-magnetite mineralization. |
| <b>Bass Metals</b>          | 2003 - 2012 | Literature review, rock chip sampling. 3 DDH drilled at Doctors Creek.   |

Following the discovery of the world class Mt Bischoff tin deposit by Philosopher Smith in 1871, mining and prospecting extended southwards through western Tasmania. The Corinna district was originally mined for placer gold and tin deposits in the 1880's. Intense prospecting and mining followed, particularly in the Zeehan-Dundas area, after the discovery of Ag-Pb-Zn fissure vein sulphide mineralization in 1886. Historical interest in gold, tin, and iron ore is recorded from within the area covered by the Property (Twelvetrees, 1900). Hard rock mining was small scale and limited with difficult access. The largest workings were at the Rocky River mine, where at least three magnetite lodes were prospected. Minor exploratory adits are located on the Lucy Spur gold prospect.

Numerous minor exploratory adits, pits and costeans were developed in the magnetite-sulphide lodes of the Bowry Formation.

Modern exploration commenced in the 1960's with district scale airborne reconnaissance (Atkinson, 1960). International Mining Industries (IMI) pegged EL4/1961 covering much of the Bowry Formation with exploration focused on iron ore (magnetite). Pickands Mather International developed the Savage River Iron Ore mine, processing plant, slurry pipeline and Port Latta pellet plant in 1967. CRAE pegged the extensive Rocky Cape Exploration Licence in 1977 (EL1/77), completing extensive aeromagnetic and airborne EM surveys of the district.

## **6.1 DETAILED PROSPECT HISTORY**

Historic exploration activity and results from the main prospects are described in further detail below. The Alpine Prospect is the most developed on the Property with twenty-two diamond drill holes intersecting significant magnetite-hematite-pyrite-chalcopyrite mineralization. Prospect locations are displayed in Figure 6-1.

The less accessible northern section of the Property has seen limited modern exploration, primarily greenfields stream, soil and rock chip geochemistry supported by airborne geophysical surveys. Principal prospects on the Property include alluvial gold at Brown Plains, Loudens Creek, Paradise River, Rocky River, and the Whyte River. Low-grade lode gold mineralization has been identified in adit sampling and drilling at the Lucy Spur and Rocky River prospects by Goldstream and IMI (Turner, 1997). Several iron oxide-copper-gold prospects including the Doctors Creek, Whyte River and Rocky River prospects have seen some limited exploration (Turner, 1997).

### **6.1.1 Alpine Prospect**

An aeromagnetic anomaly associated with the Alpine Prospect was identified in 1981 by government sponsored airborne magnetic surveys. The anomaly was investigated by a Geopeko/CRAE Joint Venture ("JV") in the years 1983 to 1985 (Caithness, 1985). The JV used three principal models for exploration; Tennant Creek-style ironstone hosted Cu-Au deposits, Sn-W skarns, and sediment-hosted base metal deposits associated with the Proterozoic Keith Schist.

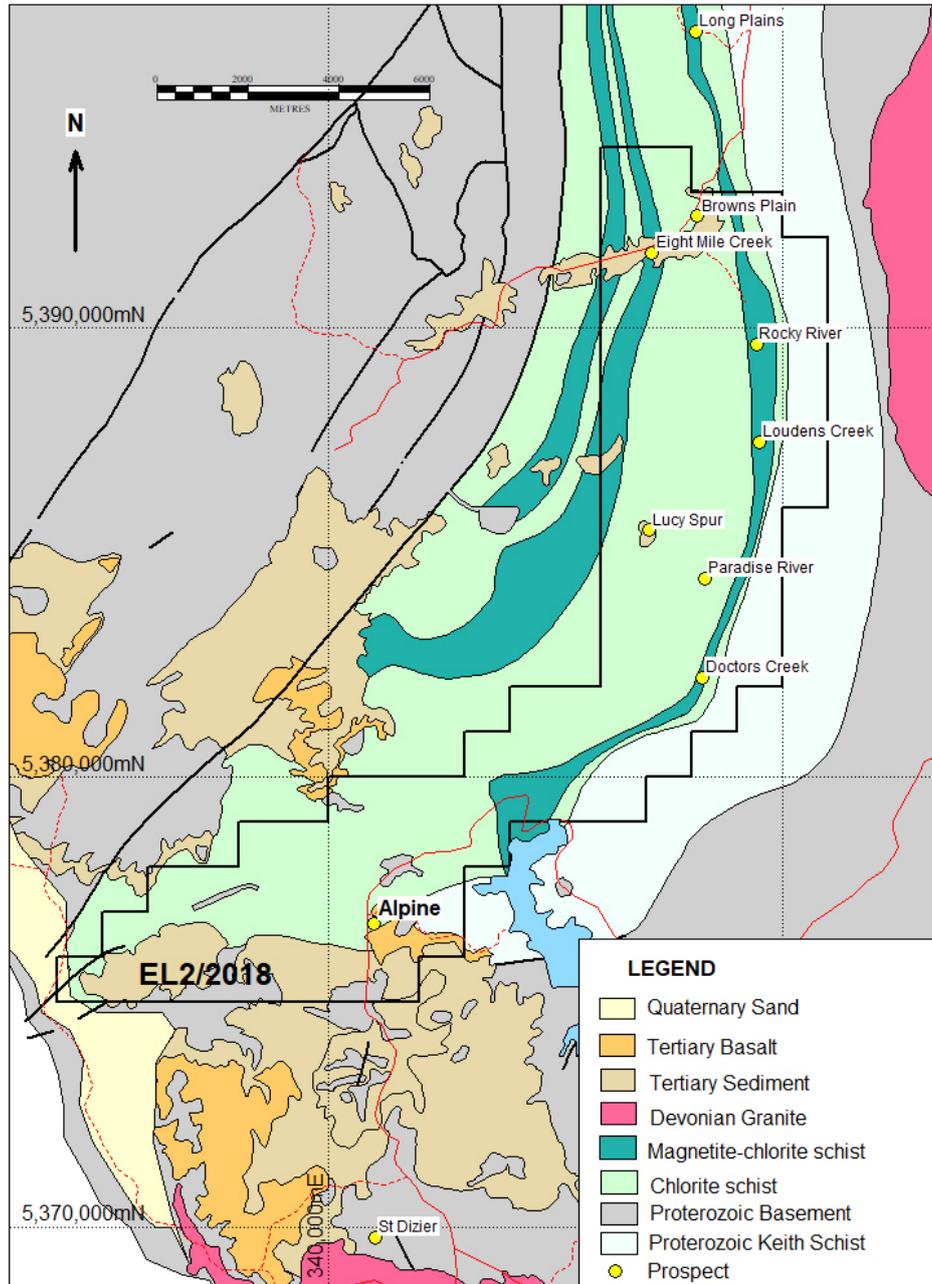
Following the district scale airborne geophysics, the CRAE/Geopeko JV established a small (8 line) geochemical grid over the anomaly, completing soil sampling, ground EM and ground magnetic surveys. Two diamond drill holes (AP001 and AP002) targeted on coincident geochemistry-geophysical anomalies intersected bands of chalcopyrite-bornite-magnetite-pyrite mineralization. CRAE concluded that the anomaly had been tested and that it did not meet CRAE requirements (Caithness, 1985). The exploration license was relinquished in 1986.

Outokumpu acquired the Alpine Prospect within its large EL56/1989 which covered much of the southern Arthur Metamorphic Lineament. Work completed in 1991 included re-cutting the CRAE grid, additional soil geochemistry, ground magnetics, telluro-electromagnetic surveys, and geological mapping (Herrmann, 1991). The exploration license was later managed by Fodina Minerals Pty Ltd who completed regional stream sediment sampling with little direct work on the Alpine Prospect (Poltock, 1993).

Goldstream-Titan Pty Ltd acquired EL43/1994 covering the Corinna area of the southern Arthur Metamorphic Lineament. Most of their work was focused north of the Pieman River on the Lefroy Ridge, Lucy Spur and Rocky River areas. Limited infill and extension soil geochemistry and mapping of the Alpine Prospect was completed in 2000 (Newnham, 2000).

Stellar Resources acquired the extensive EL46/2003 covering the northern Heemskirk area and Arthur Metamorphic Lineament south of the Pieman River. Stellar completed extensive exploration drilling

(20 holes for 3719.1m) of the Alpine Prospect, concentrating on the ground magnetic anomaly identified by CRAE. Diamond drill holes AP003 to AP021, many of which intersected significant mineralization, were drilled between 2006 and 2008 (Rigg, 2006, Hazeldene, 2007, Hazeldene, 2008). Stellar relinquished the northern part of the tenement area in 2017, concentrating on their tin prospects around the Heemskirk granite in the southern part of their EL.



**Figure 6-1. Prospect locations and MRT 250K geology**  
(MRT open file data)

A list of drill intercepts above a 0.3% Cu cut off and hole details are in Table 6-1. Drill hole locations are displayed with simplified geology in Figure 6-3.

### 6.1.1.1 Alpine Prospect Soil Sampling

CRAE (Caithness, 1985) took 260 B/C horizon soil samples over the Alpine prospect on 200m spaced lines on N-S orientations over an area of approximately 1.4km x 1km (Figure 6-2). A strong Cu-Co anomaly over the Alpine prospect was identified, coincident with strong aeromagnetic and ground magnetic anomalies. The survey results included maximum soil values of 710ppm Cu and 420ppm Co. Soil anomalies over the Alpine prospect are partially masked by Tertiary basalt and Quaternary sediments in the east of the prospect where they trend below the cover sequence. The strongest Cu-Co anomaly is located north of the Alpine prospect.

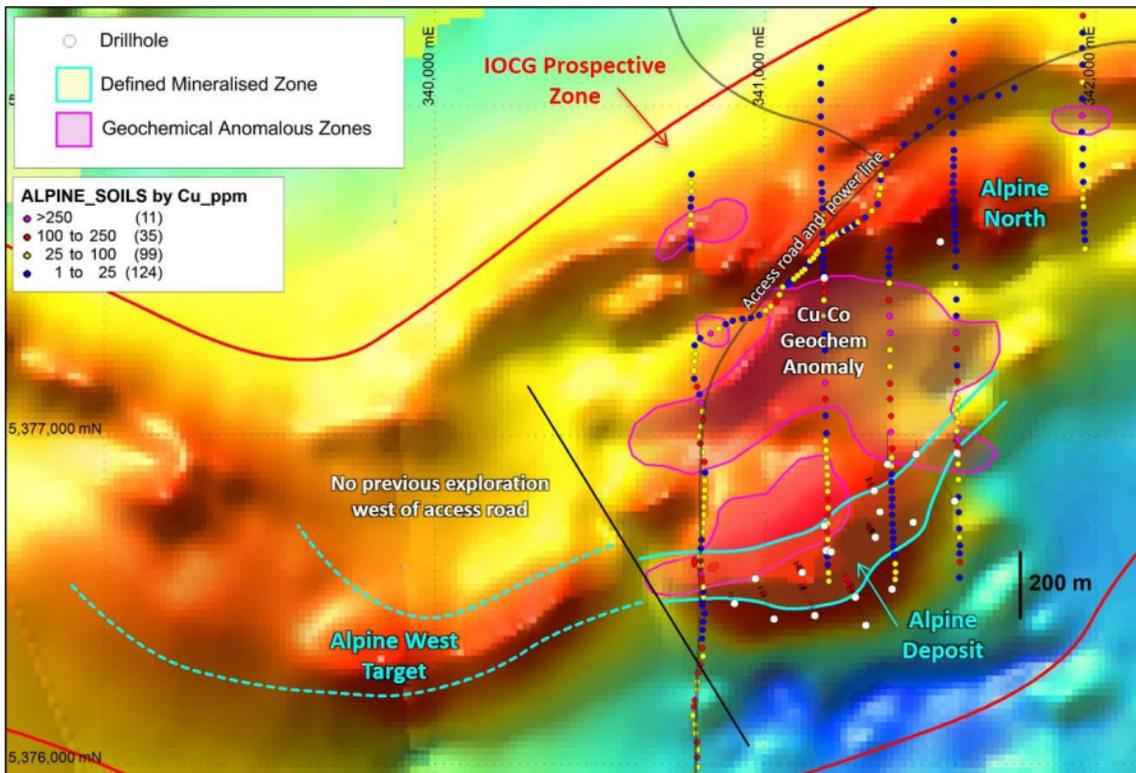


Figure 6-2. Alpine Prospect soil geochemistry, DDH collars and aeromagnetic TMI image (Westbrook, 2019)

### 6.1.1.2 Alpine Prospect Aeromagnetic Survey

Several fixed wing and helimagnetic surveys have been flown over the entire Arthur Metamorphic Lineament with the first surveys in the early 1960s. Strong magnetic lineaments were observed in the Bowry and Lucy Formations. Prominent magnetic highs are associated with the Alpine magnetite-pyrite-chalcopyrite mineralization (Figure 6-2).

### 6.1.1.3 Alpine Prospect Ground EM and Magnetic Survey

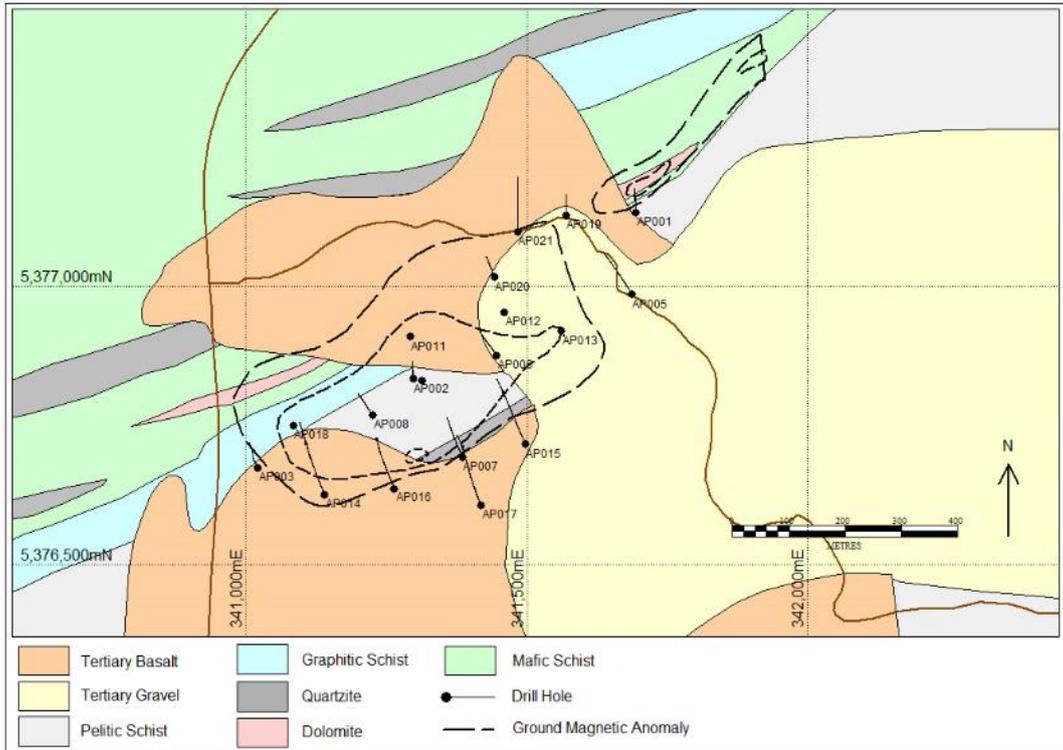
CRAE completed ground magnetic and EM surveys over the Alpine grid (Caithness, 1985). The magnetic survey was most successful defining strong associated magnetic highs coincident with the mineralization.

#### 6.1.1.4 Alpine Prospect Diamond Drilling

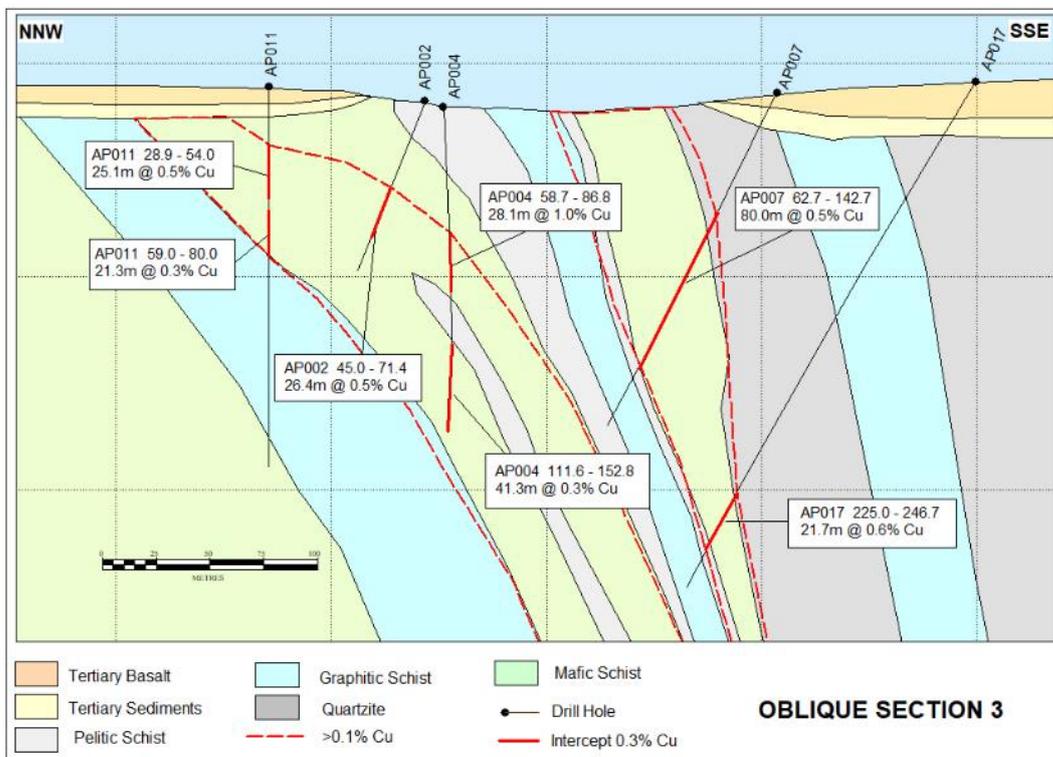
CRAE drilled 2 diamond holes in 1985 with Stellar Resources completing a further 21 holes in 2006 and 2007 for a total of 23 diamond holes (3,991.6m). Most holes intersected significant magnetite-hematite-pyrite-chalcopyrite mineralization hosted in steeply dipping mafic magnetite-chlorite schists of the Bowry Formation. Mineralization was best developed close to the Bowry Formation-Keith Schist contact.

**Table 6-3. Alpine Prospect Significant Drill Intercepts.**

| BHID   | North  | East    | RL  | Depth | Dip   | Azimuth | From   | To     | Length | Cu%  |
|--------|--------|---------|-----|-------|-------|---------|--------|--------|--------|------|
| AP001  | 341694 | 5377131 | 187 | 106.7 | -65   | 357     | 84.2   | 94.75  | 10.55  | 0.26 |
| AP002  | 341297 | 5376834 | 182 | 85.8  | -68   | 357     | 45     | 71.4   | 26.4   | 0.52 |
| AP003  | 341020 | 5376674 | 170 | 149.3 | -75   | 339     | 93     | 94.61  | 1.61   | 0.52 |
|        |        |         |     |       |       |         | 124.6  | 126.6  | 2      | 0.50 |
| AP004  | 341313 | 5376830 | 179 | 152.8 | -87   | 160     | 58.7   | 86.8   | 28.1   | 1.03 |
|        |        |         |     |       |       |         | 111.55 | 152.8  | 41.25  | 0.30 |
| AP005  | 341687 | 5376985 | 196 | 170   | -65   | 330     |        |        | 0      |      |
| AP006  | 341446 | 5376875 | 190 | 155.6 | -65.6 | 331     | 42     | 91     | 49     | 0.39 |
| AP007  | 341386 | 5376693 | 185 | 173.5 | -60.6 | 334     | 62.7   | 142.7  | 80     | 0.53 |
| AP008A | 341225 | 5376768 | 176 | 139   | -70.8 | 328     | 29.8   | 70.8   | 41     | 0.48 |
| AP009  | 341292 | 5377664 | 189 | 140.1 | -65.9 | 348     |        |        | 0      |      |
| AP010  | 341643 | 5377774 | 188 | 149.7 | -60   | 350     |        |        | 0      |      |
| AP011  | 341292 | 5376909 | 189 | 178.1 | -90   | 360     | 28.9   | 54     | 25.1   | 0.48 |
|        |        |         |     |       |       |         | 59     | 80     | 21     | 0.31 |
| AP012A | 341460 | 5376952 | 193 | 269.5 | -90   | 360     | 77     | 108    | 31     | 0.42 |
|        |        |         |     |       |       |         | 212    | 215    | 3      | 0.50 |
| AP013  | 341561 | 5376920 | 196 | 353   | -90   | 360     | 204.6  | 230.8  | 26.2   | 0.25 |
|        |        |         |     |       |       |         | 257    | 304    | 47     | 0.37 |
| AP014  | 341140 | 5376626 | 176 | 284.1 | -60   | 337     | 157.3  | 181.15 | 23.85  | 0.60 |
|        |        |         |     |       |       |         | 206    | 212    | 6      | 0.20 |
| AP015  | 341497 | 5376717 | 190 | 272.3 | -60   | 337     |        |        | 0      |      |
| AP016  | 341264 | 5376637 | 174 | 205   | -60   | 337     | 73     | 88     | 15     | 0.65 |
|        |        |         |     |       |       |         | 164    | 203    | 39     | 0.33 |
| AP017  | 341418 | 5376607 | 191 | 272.4 | -60   | 337     | 225    | 246.65 | 21.65  | 0.55 |
| AP018  | 341084 | 5376749 | 174 | 82    | -90   | 360     |        |        | 0      |      |
| AP019  | 341570 | 5377127 | 188 | 62    | -50   | 360     |        |        | 0      |      |
| AP020  | 341443 | 5377016 | 195 | 163   | -75   | 337     | 146    | 152.5  | 6.5    | 0.36 |
| AP021  | 341483 | 5377097 | 193 | 200   | -60   | 360     |        |        | 0      |      |



**Figure 6-3. Alpine Prospect geology, DDH collars and ground magnetic anomaly**  
(Callaghan, 2019)



**Figure 6-4. Alpine Prospect Oblique Drill Section with Historic Drilling**  
(Callaghan, 2019)

### **6.1.2 Rocky River Area**

The iron ore bodies in the Whyte River area have long been recognised, and government geologist Reid (1924) identified and described many of the massive magnetite-hematite bodies in the Whyte River area, including “a body of iron ore 300 feet in width... exposed to a depth of 100 feet” in the Doctors Creek - Duffer Creek area. The Rocky River Fe-Cu-Au prospect was discovered in the early phase of prospecting in the late 1800’s by the Rocky River Mining Company. Four historic adits delineated three magnetite lodes – Nos. 1 and 2 and the Sawpit or Western Lode. Mining was focused on gold and copper with limited success. Most gold was derived from alluvial sources.

The iron ore potential of the Bowry Formation was assessed by IMI – Savage Resources on historic EL4/1961. Pickands Mather International opened the Savage River magnetite mine in 1967 and subsequent exploration identified magnetite lodes at Long Plains, Whyte River, Rocky River and Owen Meredith Magnetite (Annette and Shannon, 1987). Exploration conducted by IMI / Savage Resources consisted of regional and prospect scale stream sediment geochemistry, gridding, magnetic surveys, soil and rock chip geochemistry with two drillholes completed by the Tasmanian Mines Department at the Rocky River Iron deposit in 1966 (Shannon et al 1985).

Modern-day prospecting in the Rocky River area has returned only scattered low-level gold and copper results (Turner, 1997). Goldstream Resources completed adit sampling and regional stream sediment sampling surveys followed by three diamond holes on the historic Rocky River magnetite mineralization (Turner, 1997).

#### **6.1.2.1 Aeromagnetic Survey**

Comprehensive regional aeromagnetic surveys have been completed by the Tasmanian Mines Department and private companies between 1961 and the last helimagnetic survey completed by MRT in 2002. The Bowry and Lucy Formations form prominent magnetic lineaments associated with magnetite bearing schists.

#### **6.1.2.2 Stream Sediments**

Goldstream completed comprehensive panned concentrate and #80 mesh stream sediment sampling around the Rocky and White River historic gold mining areas. Numerous high-grade drainage anomalies were detected in the vicinity (Figure 6-5).

#### **6.1.2.3 Soil Sampling**

Goldstream collected 175 B/C horizon soil samples in the immediate vicinity of the historic Rocky River adits. Samples were taken along 6 approximately east-west oriented grid lines over an area of 1.5km. Samples were assayed for Ag, Au and Cu with maximums of 83.6ppb Au and 36ppm Cu. Despite considerable gold recorded from panned concentrate sampling, gridded soil sampling failed to identify any consistent gold or copper anomalies (Figure 6-6).

#### **6.1.2.4 Rock Chip Sampling**

Twelvetimes (1900) reports five samples from a nickel sulphide lode associated with the Rocky River No 2 Lode assayed from 26.4% to 51.75% Ni, with cobalt from 2% to 10% Co, gold from around 0.5 to 2 oz/t, and antimony at 2% Sb. Gold is reported in other parts of the No. 2 Lode, including an association with specular hematite and pyritic quartz grading 8 to 32 g/t Au. At the Sawpit lode, gold was reportedly associated with mineralized graphitic schists and assayed up to 26 g/t Au in specimens. Both the Rocky River No.1 Lode and the Sawpit Lode were reportedly traceable 100m south to the Associated Rocky River workings. An assay of a specimen of the cupriferous magnetite ore from the

Rocky River mine taken by a government geologist (Twelvetrees, 1900) returned 0.1% Cu with 15.2 g/t Ag and trace gold, while a “bulk sample” prepared by the mine manager assayed 5% Cu with 4.7 g/t Au. The Cu-Au mineralization at Rocky River is obviously patchy and Twelvetrees stressed the need for determining the average grade of the ore. Numerous other small workings on copper-gold bearing zones are scattered throughout the Rocky River prospect area.

Modern exploration rock chip sampling conducted by Goldstream involved 41 rock chip samples from outcrop and adits in the Rocky River area. Samples were systematically assayed for Cu and Au with maximum values of 0.27ppm Au and 450ppm Cu. These results are significantly lower than the historically reported samples.

#### **6.1.2.5 Diamond Drilling**

Goldstream drilled three diamond drill holes in the vicinity of the Rocky River adits. Drillholes intersected mafic schists with thin zones (generally <10m) of banded magnetite-pyrite. Assay results returned low level Au of generally <0.1g/t and a peak value of 0.5g/t and Cu generally <0.1% Cu with a peak of value of 0.45% Cu (Turner, 1997). Drillhole RRDDH1 was terminated in a semi-massive magnetite-pyrite mineralization zone at least 27m wide from 322.5m to EOH (349.5m) with no Cu or Au.

Bass Metals briefly investigated the iron ore potential of the prospect, reassaying the Goldstream drill core for Fe and taking some channel samples from historic workings (Richardson, 2014). Drill core assaying included a best result of 5.6m @ 44.1% Fe and 0.2% V from 75.4m in RRDDH3. Channel sampling returned up to 6m at 65.6% Fe with grab samples assaying 63.0% Fe, 66.3% Fe, and 69.6% Fe.

**Table 6-4. Rocky River Prospect Significant Drill Intercepts**

| BHID   | North    | East      | RL  | Depth  | Azm | Dip | From  | To    | Length | Cu%  | Au g/t |
|--------|----------|-----------|-----|--------|-----|-----|-------|-------|--------|------|--------|
| RRDDH1 | 349921.6 | 5389777.8 | 200 | 349.5m | -45 | 270 | 155.0 | 155.5 | 0.5m   | 0.45 | 0.25   |
| RRDDH2 | 349881.6 | 5389992.8 | 200 | 349.5m | -45 | 270 | 167.0 | 167.5 | 0.5m   |      | 0.5    |
| RRDDH3 | 349151.6 | 5390152.8 | 200 | 286.8m | -45 | 112 |       |       |        |      |        |

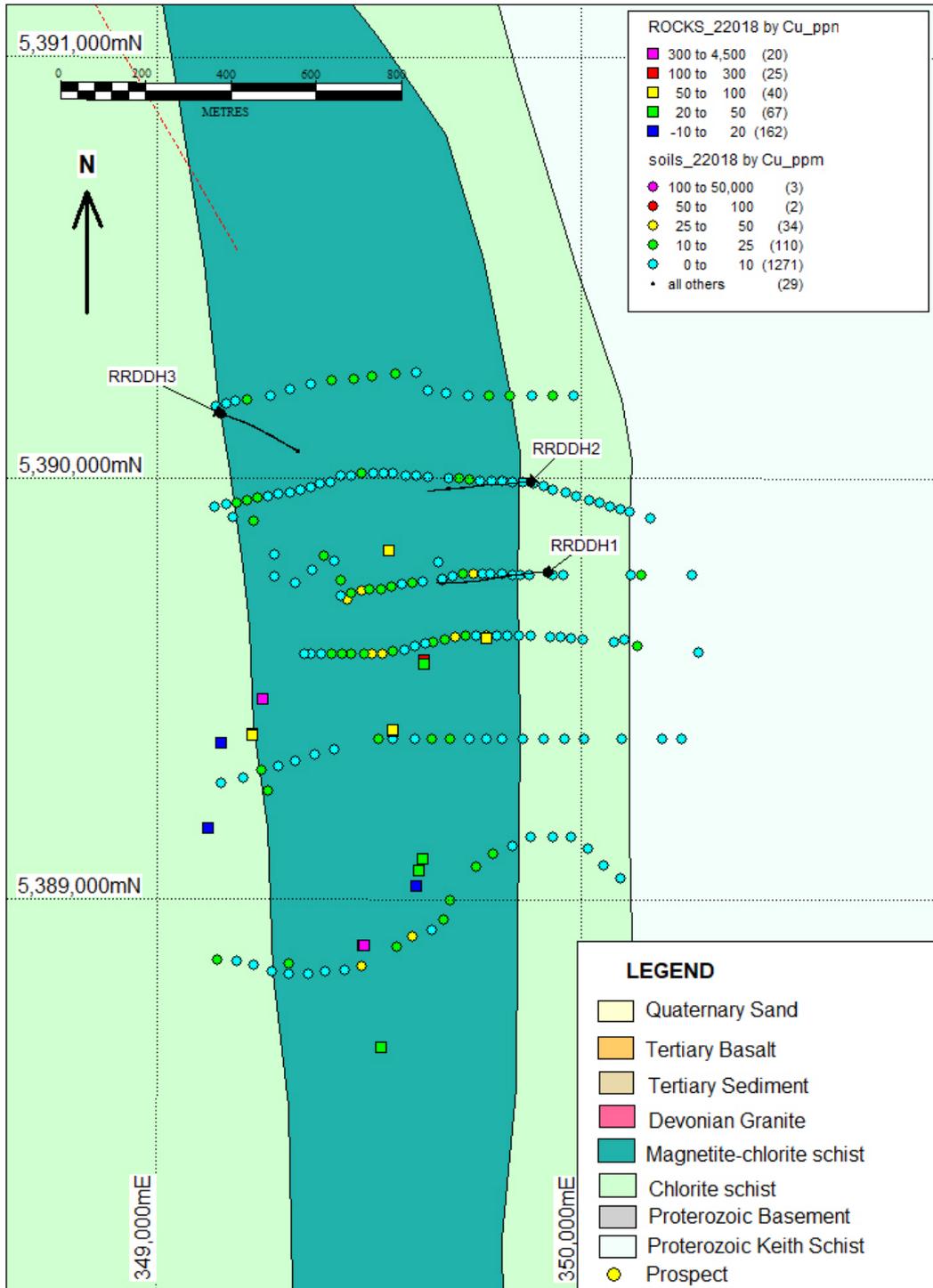
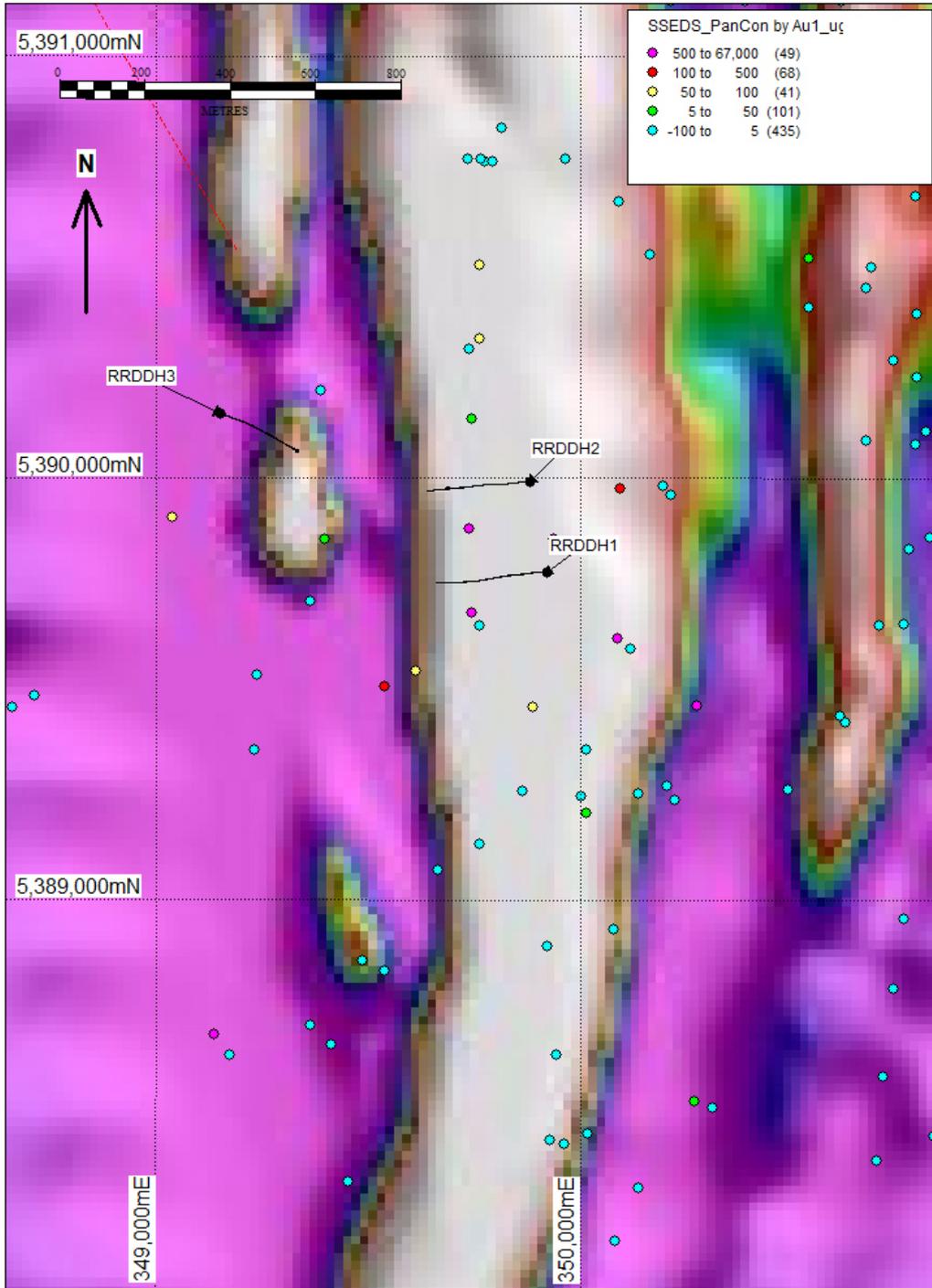


Figure 6-5. Rocky River Geology, drillholes, soil samples and rock chip locations  
(Mineral Resources Tasmania open file data)



**Figure 6-6. Rocky River 1vd TMI drill holes and Panned Concentrate stream sediment locations**  
 (Mineral Resources Tasmania open file data)

### 6.1.3 Lucy Spur Area

The Lucy Spur area was mined historically for alluvial gold and very minor hard rock gold. Historic underground mine workings consist of three adit levels intersecting a greisenised Proterozoic porphyritic granite intruding chloritic schists. Mine development from the late 1800's appears to have been focussed on the brecciated contact between the porphyry and mafic schist. Alluvial mining of Tertiary deep leads and recent streams occurred in the same era (Twelvetrees, 1900).

IMI/Savage Resources completed soil, rock chip, adit and stream sediment sampling on EL4/1961 (Shannon et al, 1987). Further gridding, soil sampling and stream sediment sampling was completed by Goldstream on EL43/1994 (Turner, 1997). Geochemical Au anomalies were present in the vicinity of the historic alluvial and hard rock workings.

Goldstream drilled three diamond holes in the vicinity of the Lucy Spur adits, none of which intersected significant mineralization.

#### 6.1.3.1 Aeromagnetic Survey

Comprehensive regional aeromagnetic surveys have been completed by the Tasmanian Mines Department and private companies since 1961 with the last helimagnetic survey in 2002. The Bowry and Lucy Formations form prominent magnetic highs with lower order magnetic anomalies probably related to Proterozoic granite intrusions at Lucy Spur (Figure 6-8).

#### 6.1.3.2 Stream Sediments

Goldstream completed comprehensive panned concentrate and #80 mesh stream sediment sampling around the Lucy Spur district. Numerous high-grade drainage anomalies were detected in the vicinity of the Lucy Spur and Nancy Spur areas (Figure 6-8).

#### 6.1.3.3 Soil Sampling

Goldstream collected 1164 B/C horizon soil samples in the Lucy Spur and Nancy Spur areas. Samples were taken along ridges and access roads as well as on 100m spaced east-west oriented grid lines. Samples were assayed for Ag, Au and Cu with maximums of 5.8ppm Au and 435ppm Cu although most samples were several orders of magnitude lower (Au 1-10ppb, Cu 0-10ppm). Despite considerable gold recorded from panned concentrate sampling, gridded soil sampling over the Lucy Spur adits failed to identify any consistent gold or copper anomalies (Figure 6-7). A moderate Cu-Au soil anomaly is defined over a 750m strike length at Nancy Spur.

#### 6.1.3.4 Rock Chip Sampling

Goldstream took 261 rock chip samples from outcrop and adits in the Lucy Spur area. Samples were systematically assayed for Cu and Au with sporadic assaying of other elements. The majority of rock-chip sampling in the accessible adits yielded Au assays <150ppb Au with exceptions including 0.74g/t Au, 1.4g/t Au, 2.25g/t Au, and 1.85g/t Au. A single sample of pug in a fracture assayed 102.4g/t Au from a limonitic porphyry/schist breccia. Most samples were low order (<0.1ppm Au). Rock chip Cu was also generally low order over the Lucy Spur adits with higher grade Cu from chips over the Lucy Formation at Nancy Spur (maximum 1900ppm Cu).

Leach and Corbett (1998) identified a phyllic altered porphyry breccia associated with the gold mineralization in the lower adit.

### 6.1.3.5 Diamond Drilling

Goldstream drilled three diamond drill holes in the vicinity of the Lucy Spur adits. The drillholes intersected Proterozoic pelitic schists and an altered Proterozoic quartz porphyry. Only low order Au (<0.1ppm) and Cu (<0.1%) was returned from drill core samples with most below detection limits. The drillholes did not intersect the porphyry breccia exposed in the adits.

**Table 6-5. Lucy Spur Prospect Drill Intercepts**

| BHID   | North    | East    | RL  | Depth | Azm | Dip | From                          | To | Length | Cu% | Au g/t |
|--------|----------|---------|-----|-------|-----|-----|-------------------------------|----|--------|-----|--------|
| LSDDH1 | 347221.6 | 5384783 | 200 | 200   | -45 | 272 | No significant mineralization |    |        |     |        |
| LSDDH2 | 347221.6 | 5384783 | 200 | 300   | -45 | 292 | No significant mineralization |    |        |     |        |
| LSDDH3 | 347841.6 | 5384898 | 200 | 301.5 | -45 | 292 | No significant mineralization |    |        |     |        |

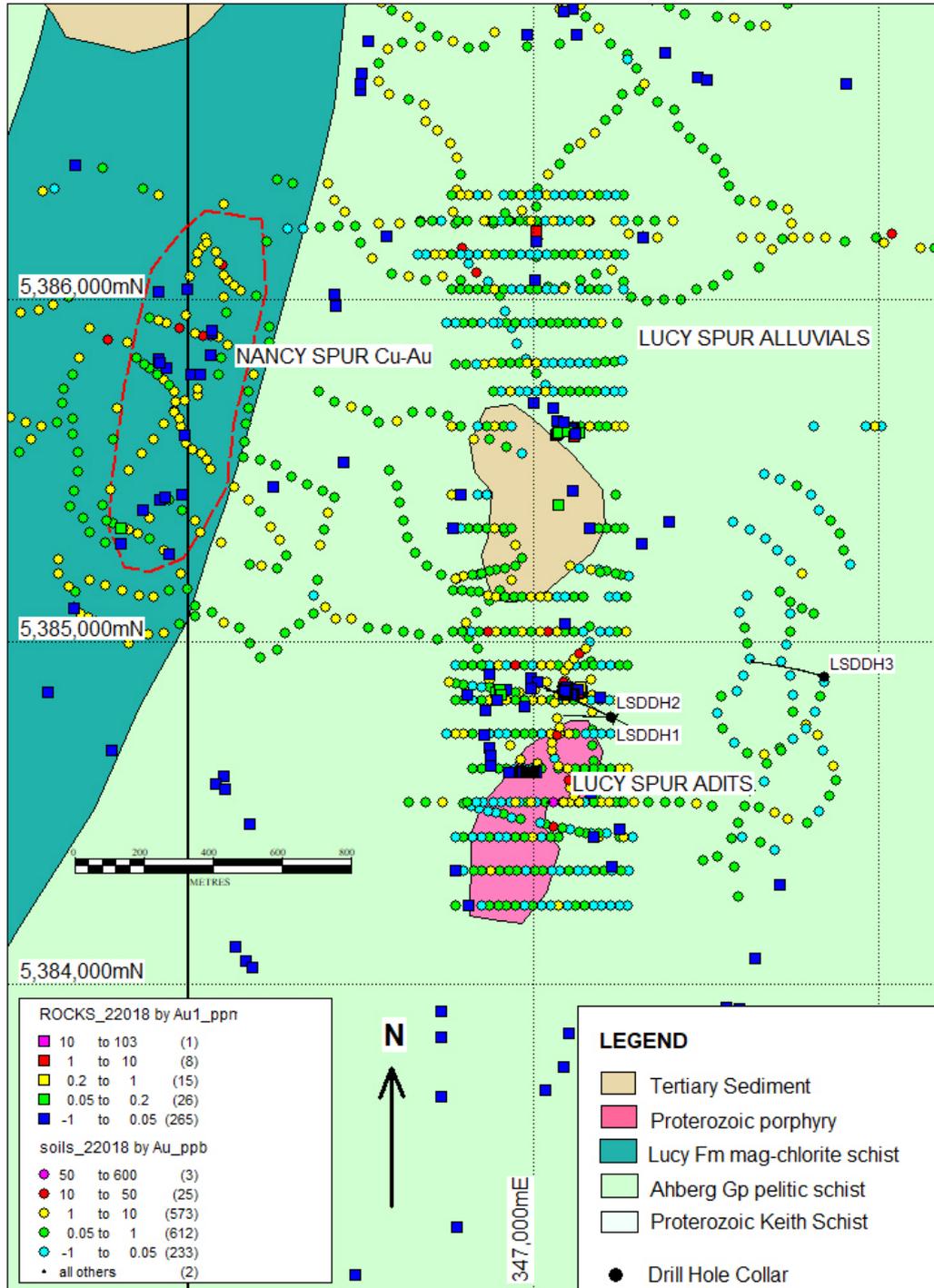
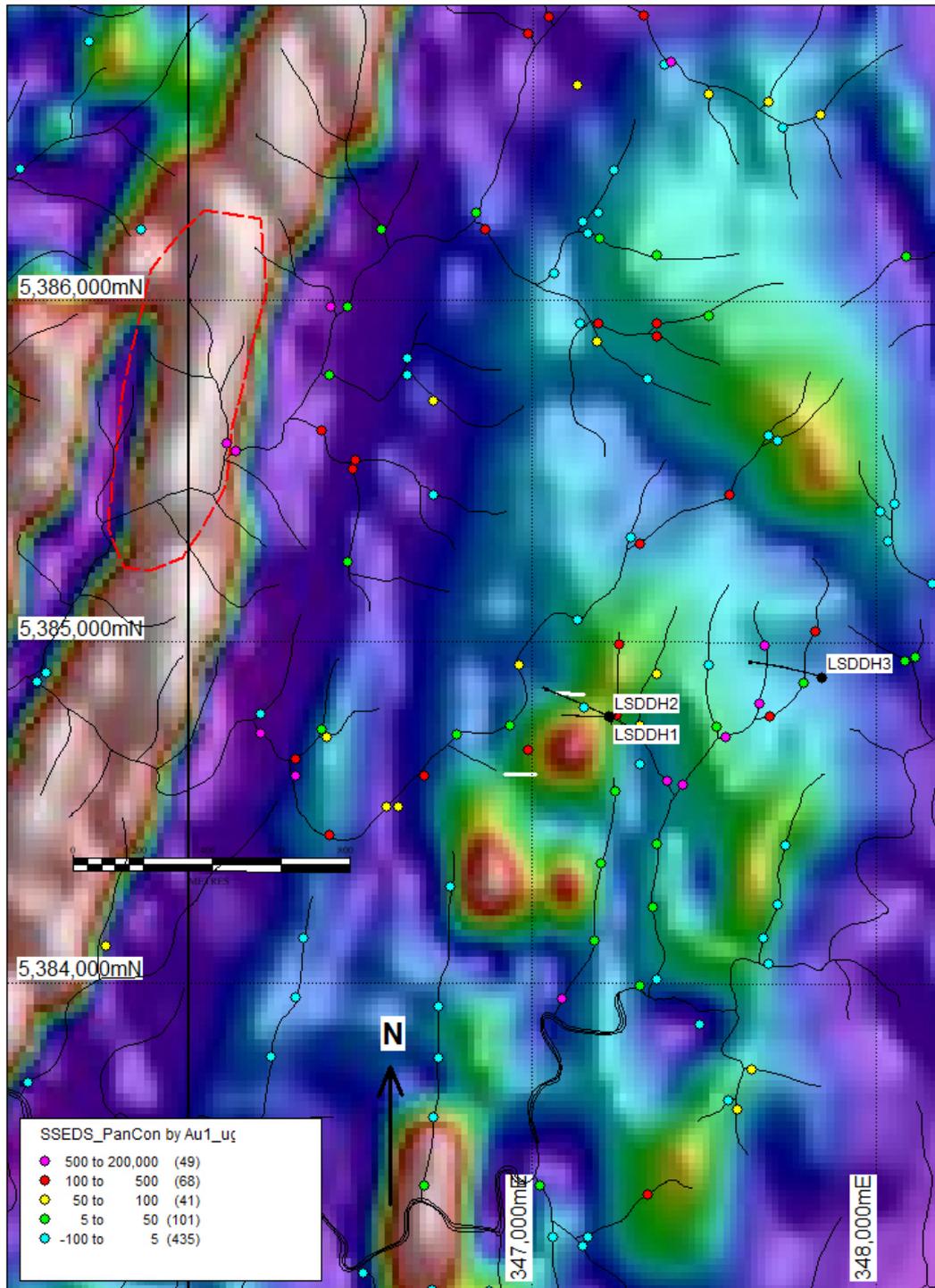


Figure 6-7. Lucy Spur Area drill holes soil and rock chip geochemistry  
(Mineral Resources Tasmania open file data)



**Figure 6-8. Lucy Spur Area 1vd TMI, drill holes soil and stream sediment panned concentrate Au**  
(Mineral Resources Tasmania open file data)

### 6.1.4 Doctors Creek-Owen Meredith Area

Magnetite-pyrite mineralization within the Bowry Formation in the vicinity of the Owen Meredith River is a continuation to the south of the northern Rocky River magnetite lodes. The area was prospected for alluvial and hard rock gold in the same era as the Rocky River district to the north.

The Owen Meredith grid covers aeromagnetic anomalies between Alpine and the Owen Meredith River. The area was covered by the CRAE exploration licence EL1/1977. CRAE completed stream sediment sampling, gridding and soils and rock chip geochemistry (Caithness, 1985).

Outokumpu acquired historic EL56/1989 covering the ironstones of the Owen-Meredith-Doctors Creek area after CRAE relinquished the EL. Early stage reconnaissance included recutting the CRAE grid, mapping, ground magnetics and soil geochemistry. Rock chips from the ironstones on the western boundary of the Bowry Formation at Doctors Creek returned assays up to 0.50% Cu and 0.29g/t Au (Herrmann, 1991). Most soil and rock chip anomalies were single point anomalies associated with magnetite-pyrite schists of the Bowry Formation that were not followed up (Poltock, 1993).

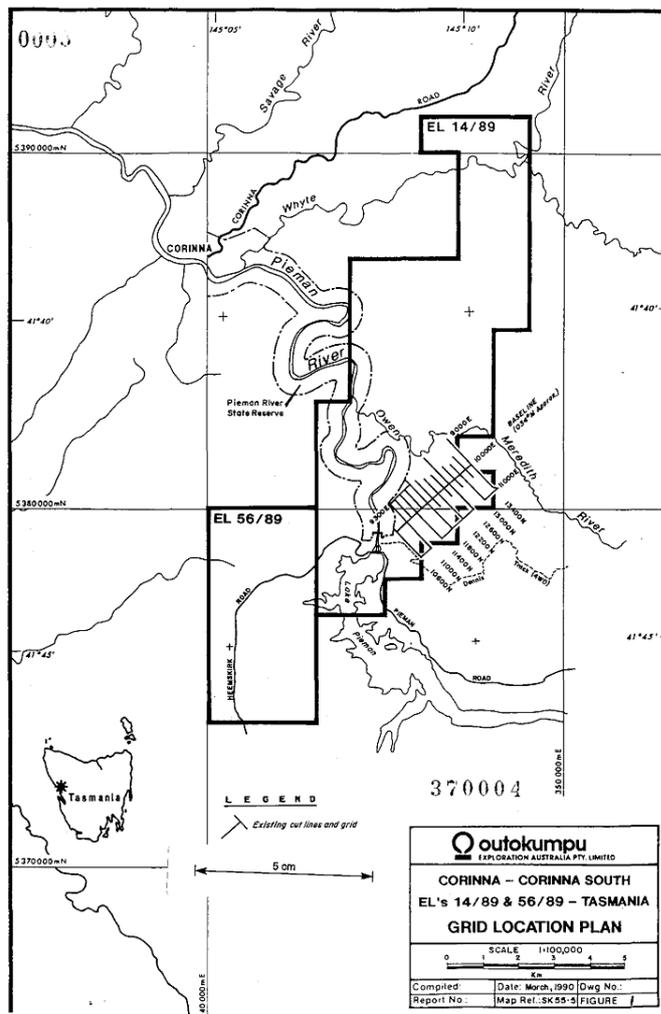


Figure 6-9. Owen Meredith historic soil and stream sediment grid

(Herrmann, 1991)

Venture Minerals investigated a magnetic anomaly over the Bowry Formation near the junction of the Owen-Meredith River and Doctors and Duffers Creeks during June 2009 on historic EL36/2003. This

anomaly was selected because of a 1924 report by MacIntosh-Reid who described a considerable body of hematitic iron ore from this vicinity (Bates, 2010).

Mapping and rock chip sampling were conducted on a campaign basis throughout 2009 into early 2010. Three diamond holes for 393m targeting iron ore were drilled in March – April 2010 (Bates, 2010). All three holes intersected magnetite-hematite mineralization, but thickness and continuity were too poor to justify further drilling. Low grade anomalous Cu was associated with the magnetite mineralization (Table 6-6).

Data for the Doctors Creek-Owen Meredith area has yet to be collated, digitised, and assessed.

**Table 6-6. Doctors Creek Prospect Significant Drill Intercepts**

| BHID  | North  | East    | RL  | Depth  | Azm | Dip | From  | To    | Length | Cu%  | Au g/t |
|-------|--------|---------|-----|--------|-----|-----|-------|-------|--------|------|--------|
| DC001 | 347451 | 5381558 | 190 | 66.2m  | -45 | 320 | 34.0  | 39.4  | 5.4m   | 0.07 | na     |
| DC002 | 347920 | 5381915 | 175 | 187.4m | -45 | 305 | 155.0 | 156.8 | 1.8m   | 0.16 | na     |
| DC003 | 347451 | 5381558 | 190 | 139m   | -65 | 320 | 41.2  | 43.0  | 1.8m   | 0.10 | na     |

## **6.2 REGIONAL AIRBORNE GEOPHYSICAL SURVEY**

Regional airborne geophysical surveys (magnetics) were first completed by CRAE in the 1960's with follow up extensions by government sponsored surveys. The most recent survey was completed by MRT in the 2002 Western Tasmanian Regional Minerals Program. Helimagnetic and EM surveys were systematically flown on 200m spaced lines over much of the west coast of Tasmania.

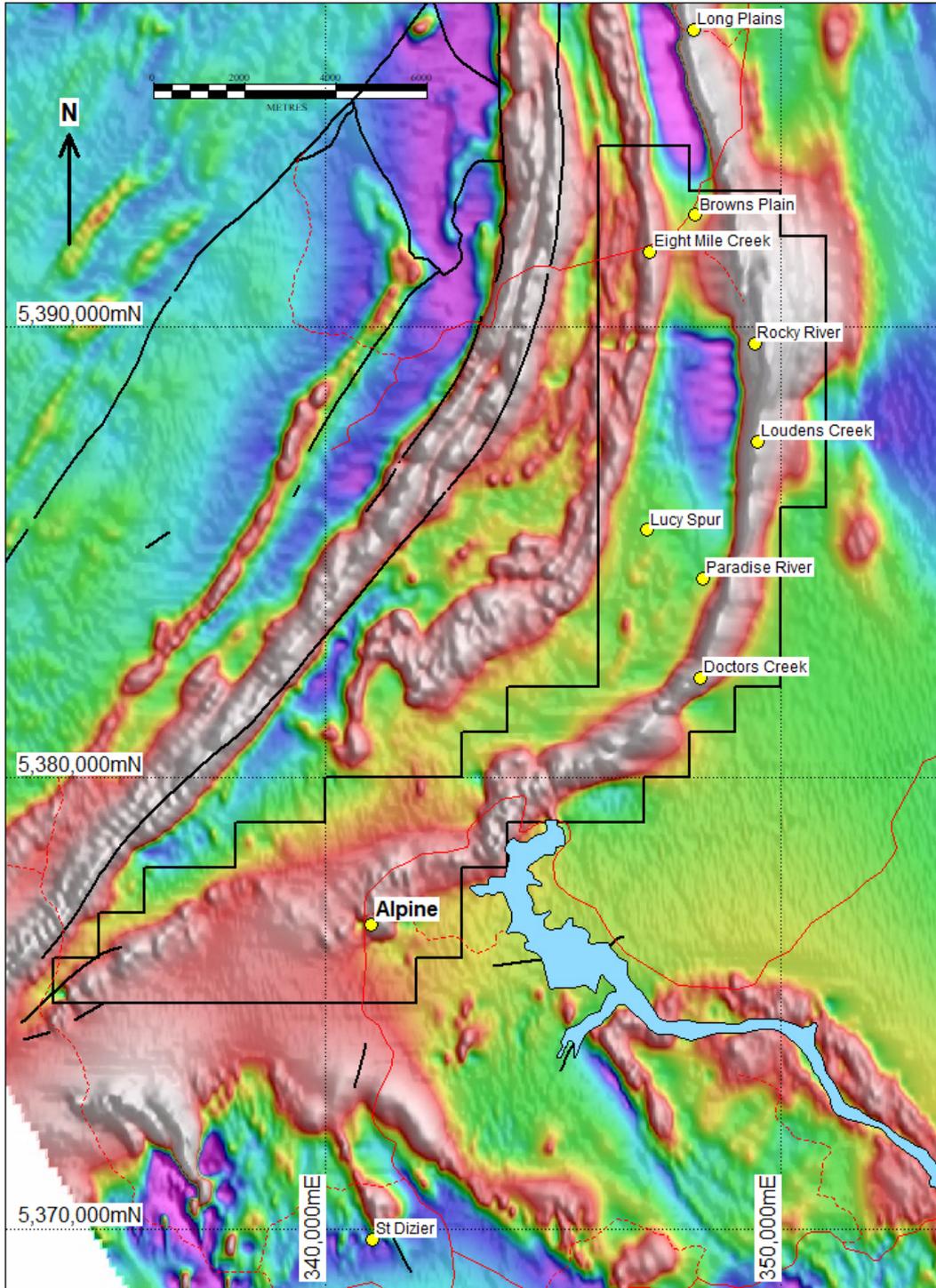


Figure 6-10. Regional Helimagnetic TMI Image  
(MRT 2002)

## 7 GEOLOGICAL SETTING AND MINERALIZATION

### 7.1 REGIONAL GEOLOGY

North west Tasmanian geology is separated from the geology of Western Tasmania by the 510Ma Arthur Lineament, a major NNE trending thrust lineament (Figure 3). Regionally the Arthur Lineament separates the north western Neoproterozoic Rocky Cape Group and Ahrberg Group from the low strain Oonah Formation to the southeast (Everard et al., 2007). The Lefroy Ridge Fault forms the western boundary to the lineament.

The Arthur Metamorphic Lineament (AML) is a steep dipping, NE-SW striking structural lineament of metamorphosed Cambrian mafic volcanics, carbonates and sediments of the Ahrberg Group, the Bowry Formation, and a high strain part of the Oonah Formation (Keith Schist). The lineament is associated with isoclinal folding and a strong penetrative cleavage generally striking NNE and dipping west (Turner and Bottrill, 1993). The lineament is folded to an essentially east-west strike just south of the Savage River Mine during the later Devonian Deformation event. Formation of the lineament is attributed to the Tyennan Orogeny ( $510 \pm 10$  Ma) onset by an arc-continent collision during the Early to Middle Cambrian. Deformation involved major shearing, isoclinal folding and thrust emplacement of allochthonous units (the Bowry Formation) and subsequent intense folding and faulting leading to the present linear expression of the Arthur Lineament (Holm, 2002). Later deformation in the Devonian Tabberabberan Orogeny (370Ma) resulted in further faulting and dome and basin folding, followed by region-wide post orogenic granitoid intrusion (332-367 Ma).

Geology to the west of the lineament is complex and not completely resolved. From west to east approaching the lineament the geology comprises the quartzite and slates of the Rocky Cape Group, overlain by the Donaldson Group composed of micaceous quartzwacke and pelitic siltstone with minor chert and conglomerate near the base. The Savage Dolomite conformably overlies the Donaldson Group which is in turn overlain by the Bernafai Volcanics consisting of basaltic volcanoclastics, quartzite and phyllitic siltstone. These are overlain by the Corinna Dolomite and the Tunnel Race mafic volcanics.

East of the Lefroy Ridge Fault the geology is dominated by metasediments and amphibolites of the Arthur Metamorphic Lineament. The amphibolites occur in the Lucy (magnetic), Nancy (weakly magnetic), and Bowry (strongly magnetic) Formations. The Bowry Formation consists of chloritic, schistose mafic volcanics with interbedded dolomite and magnesite. The Bowry Formation is strongly altered with associated banded magnetite-pyrite-silica, reaching maximum intensity at the Savage River magnetite mine 20km north of EL2/2018. The western margin of the Arthur Metamorphic Lineament is dominated by the quartz-mica schist and phyllites of the Keith Schist which is gradational with the unmetamorphosed quartz-wacke turbidites of the Oonah Formation.

The lineament occupies a gravity divide between the Devonian Pieman and Meredith Granites and the Heemskirk Granite to the south. Cambrian deformation has produced steep west dipping thrust faults and a strong regional lineament visible in magnetic images.

Tertiary sediments comprise channel fill gravel, sand and clay in ridge top positions generally overlain by basalt. They have been sporadically explored for gold and tin placers with minor historic workings in the district. Gold from the sediments has redistributed into the Quaternary creeks, contaminating heavy mineral stream sediment exploration efforts.

The Lucy and Bowry Formations which contain tholeiitic basalt and volcanoclastics are prospective for gold, copper, magnetite and magnesite. An important style of iron-oxide- copper-gold mineralization is hosted in the Alpine prospect, located several kilometres south of the Pieman River. The enigmatic Savage River magnetite mine consists of sub vertical lenses of massive magnetite with varying

amounts of pyrite and trace chalcopyrite. Other smaller deposits of the same style are located in the Bowry Formation including the Long Plains deposit to the south of Savage River. Substantial magnesite deposits are found at the Arthur River and are associated with the Savage River deposit to the north and at Main Creek and Lyons River to the south.

Tasmania's northwest mining district has been subject to complex deformation, igneous activity, and sedimentation from the Late Proterozoic to the present (Green, 1990). Tin-tungsten mineralization and proximal magnetite and nickel skarns are associated with Devonian to Carboniferous I and S type granite intrusives (Chappell and White, 1992) that outcrop and underplate much of the northwest and northeast region of Tasmania. The intrusives post-date the Devonian Tabberabberan orogeny which resulted in a series of north to northwest trending folds and faults controlling the location of later granite related mineralization.

Silica flour within the Savage Dolomite has been the focus of exploration northeast of Corinna on the Tasmanian Advanced Minerals leases. Minor epithermal gold is reported from within the Savage Dolomite, although most of the gold from the district appears to be associated with Tertiary alluvial deposits.

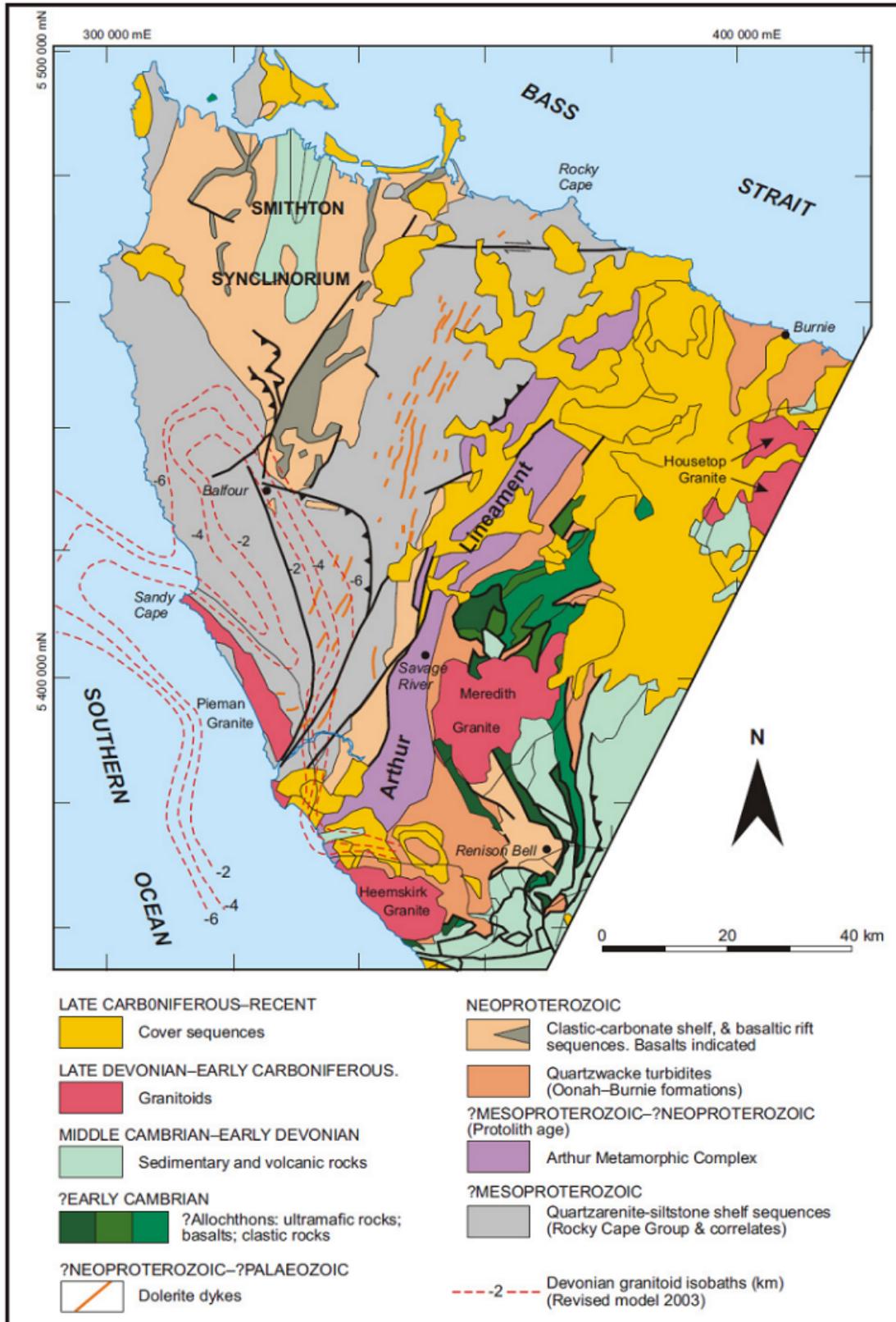


Figure 7-1. Regional Geology of Northwest Tasmania

(Everard et. al., 2007)

## 7.2 LOCAL GEOLOGY

The local geology of the Property is dominated by the deformed Proterozoic rocks of the Arthur Metamorphic Lineament (AML). The AML consists of metamorphosed Cambrian mafic volcanics, carbonates and sediments of the Ahrberg Group in the east with the Bowry Formation and a high strain part of the Oonah Formation known as the Keith Schist to the west (Figure 7-2). The Bowry and Lucy Formations consist of magnetite-pyrite bearing mafic schists forming prominent magnetic lineaments (Figure 7.3). The Bowry Formation is host to widespread magnetite-sulphide-silicate mineralization with affinities to IOCG systems.

The lineament is associated with isoclinal folding and a strong penetrative cleavage generally striking NNE and dipping west to the north of the Pieman Dam. Subsequent deformation in the Middle Devonian as part of the Tabberabberan Orogeny (~370 Ma) has folded the Arthur Metamorphic Lineament to an essentially east-west strike in the south of the Property (Turner and Bottrill, 1993).

Tertiary sediments and later Tertiary basalt unconformably cover localised areas of the Arthur Metamorphic Lineament in the Property, particularly in the south near the Alpine Deposit.

## 7.3 MINERALIZATION

The Arthur Metamorphic Lineament is host to several commodities and styles of mineralization of potential economic interest. The Company is focused on iron oxide copper-gold (IOCG) style mineralization. Mineralization styles present on the Property include:

- Iron oxide copper-gold - The Alpine prospect has been considered to be analogous to the Tennant Creek or Starra style IOCG deposits by previous workers (Caithness, 1985). Mineralization consists of banded magnetite-hematite with overprinting disseminated, stringer and massive pyrite with lesser chalcopyrite and minor bornite and chalcocite. Siderite is commonly associated with the sulphide mineralization.
- Massive Magnetite – The Bowry Formation hosts massive magnetite deposits including those being mined by Grange Resources at Savage River.
- Alluvial Gold – The Corinna district was first prospected for alluvial gold in the 1880's. The widespread alluvial gold in the Corinna district is mostly of local derivation. Some alluvial gold was sourced directly from bedrock such as at the Rocky River and Whyte River alluvial goldfields. Some sources are attributed to Tertiary streams (deep leads) with gold derived locally (Turner, 1997). Some of the basal gravels of the Tertiary alluvial deposits are relatively gold-enriched such as those at Lucy Spur, Paradise River and Nancy Spur.

## 7.4 PROSPECT GEOLOGY

The Alpine IOCG prospect is the most advanced prospect on the Property. Other less well-developed regional prospects include the Rocky River, White River and Owen-Meredith magnetite-hematite deposits, and the Lucy Spur and Rocky River lode gold deposits. Numerous other greenfield/conceptual targets associated with the magnetite-pyrite bearing Bowry and Lucy Formations remain to be tested. Prospect locations are shown in Figure 6-1 and Figure 7-2.

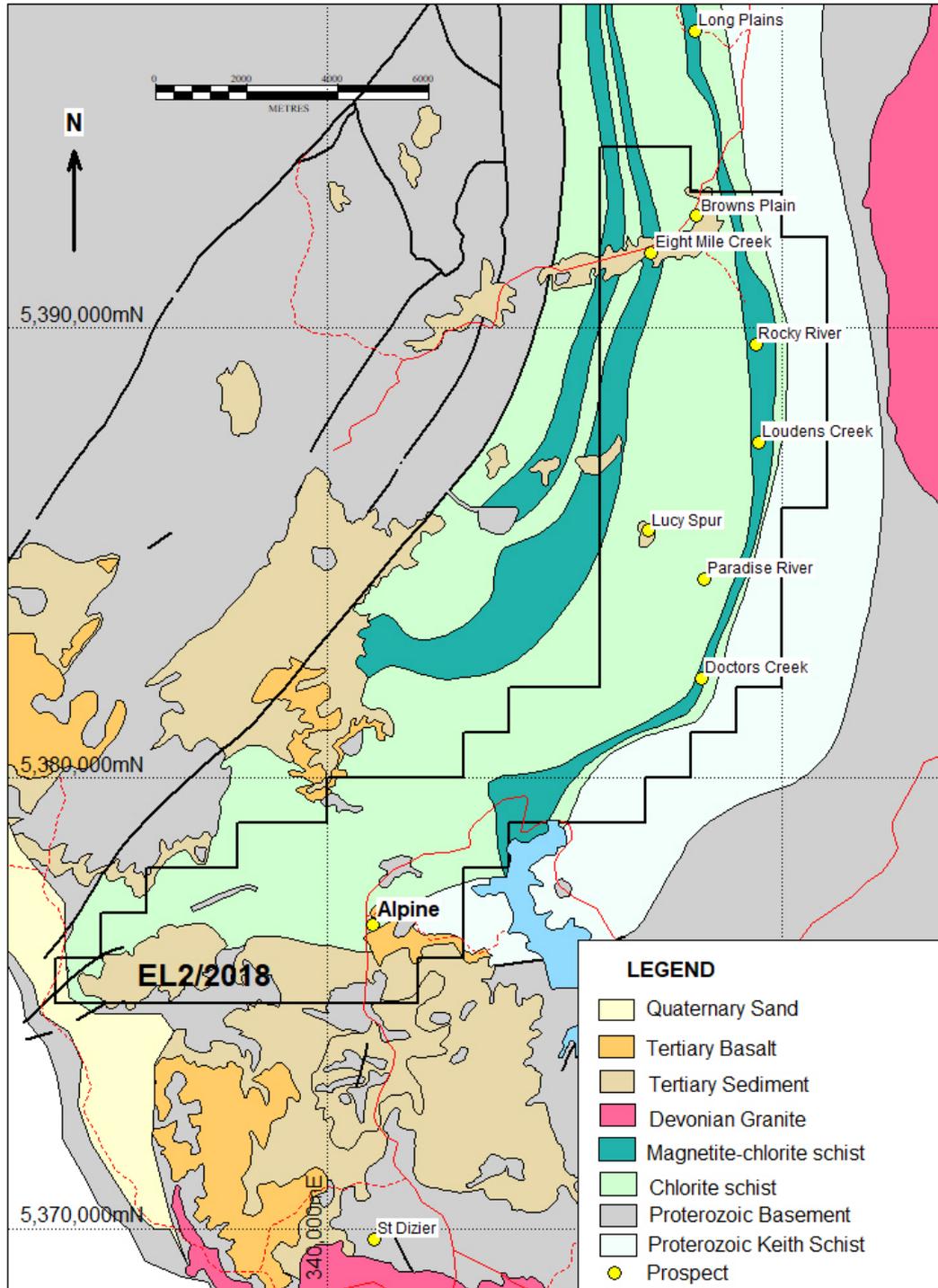


Figure 7-2. Local Geology and Property Prospects

#### 7.4.1 Alpine Prospect

Outcrop of Proterozoic schists in the Alpine Prospect area is largely obscured by Tertiary basalt overlying relatively unconsolidated Tertiary sediments (Figure 7-3). The Tertiary basalt is strongly weathered and there is deep residual clay.

The MRT 1:250K geology map shows the Bowry Formation-Keith Schist contact as running through the Alpine Prospect. This is supported by drilling with many drill collars starting in pelitic schist with increasing chloritic schist and magnetite schist downhole. Mineralization and magnetic intensity are generally concentrated along the boundary.

Proterozoic schists strike generally east-west to west-southwest and dip moderately to steeply south to south-southeast. Drilling suggests dips may flatten through the mineralized zone, but further drilling is required to confirm this. Mineralization extends over 700m in strike length and is open to the east and west along strike. Interpretation of drill intercepts suggests mineralization occurs in parallel lenses of up to 50m in thickness. Untested magnetic anomalies along the Bowry Formation-Keith Schist contact to the west suggest mineralization may be more extensive.

Principal lithologies in drill core reflect metamorphism of their respective protoliths (Turner, 2008):

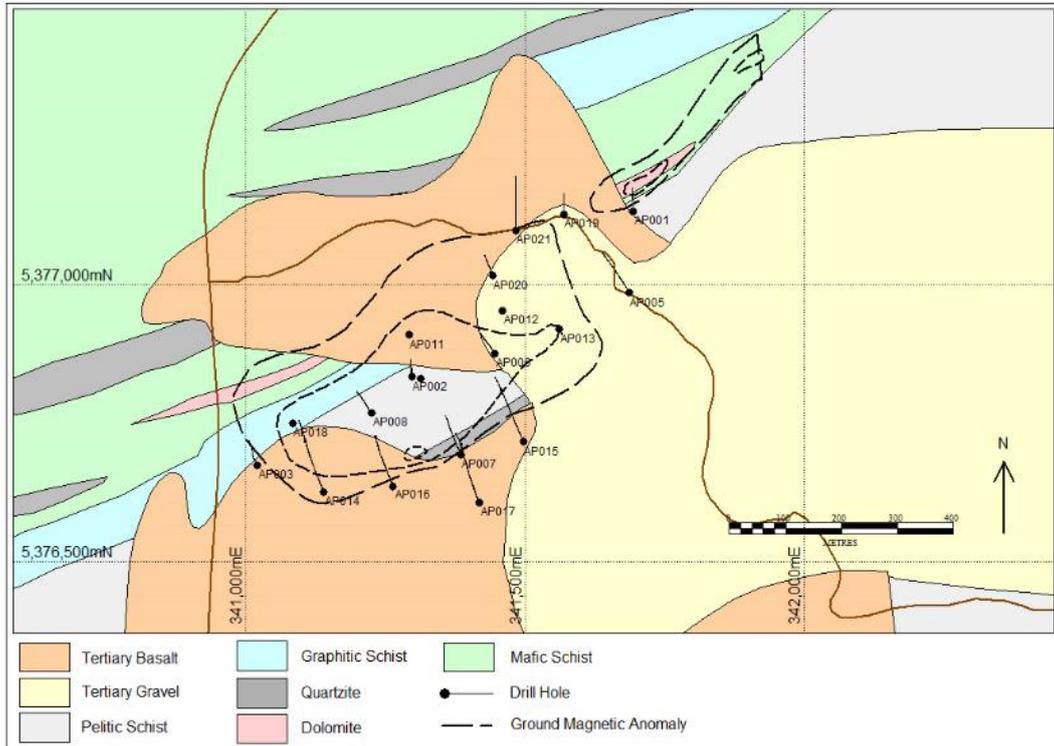
- Medium grey, muscovite quartz schist after quartzwacke-sandstone and siltstone
- Dark grey to black, graphitic phyllite after carbonaceous mudstone and siltstone
- Dark green to grey chloritic schist after mafic igneous rocks

There is commonly a strong foliation with parallel thin banding due to metamorphic differentiation of chlorite, quartz, and mica. Bedding is a commonly recognisable primary feature in the metasedimentary rocks. Primary features in the dark green to grey chloritic schist intervals are restricted to uncommon relict igneous textures (Turner, 2008). Mineralization is generally thinly banded, schistose magnetite-pyrite-carbonate-silicate associated with chloritic schist. Breccia and vein pyrite-chalcopyrite-siderite mineralization extends into associated pelitic sediments.

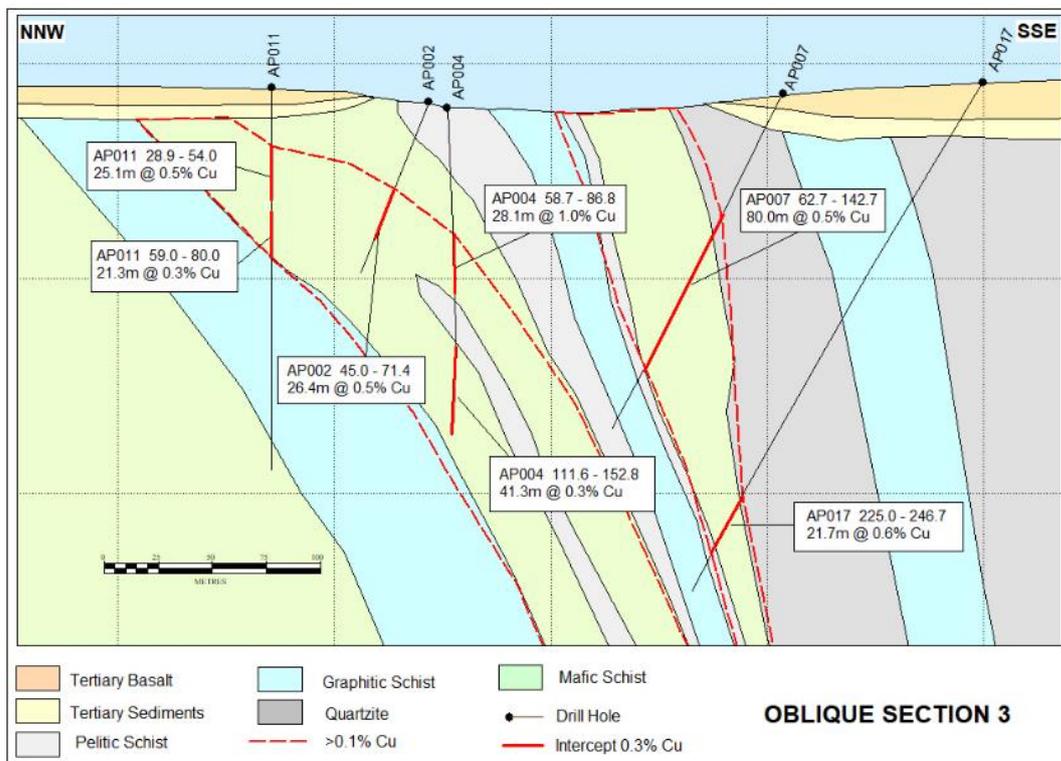
Petrological studies have been completed on request by CRAE, Goldstream/Titan and Stellar. In general, Proterozoic rocks are highly sheared, veined, brecciated, and altered phyllites, schists, dolostones, calcareous quartzites and mylonite. Alteration consists of dolomite-siderite-chlorite. Dominant sulphides in the mineralized zones consist of pyrite, chalcopyrite, and magnetite with minor bornite, chalcocite and hematite (Radke, 2006; SKM, 2007).

Turner (2008) observed the modes of occurrence of most copper mineralization in the Alpine Project area is later than the Cambrian structural fabric, including chalcopyrite in late-formed carbonate-quartz breccia veinlets and in late-formed massive sulphide. The age of the foliation-parallel chalcopyrite is equivocal but is again associated with late formed carbonate. Copper sulphide mineralization associated with intervals of chlorite-magnetite schist and banded magnetite-pyrite-carbonate-silicate may indicate that the deposition of copper was influenced by host rock chemistry. However, mineralization occurs in both pelitic and mafic schist. The mineralizing system is probably of Devonian age and its location in the hinge zone of a regional fold of Devonian age implies a structural control (Turner, 2008).

Historic diamond drilling has delineated mineralization over a 700m strike length and to a depth of over 200m. Mineralization remains open along strike, down dip and possibly to the north although first vertical derivative (1VD) magnetic images and ground magnetics suggest the drill defined deposit may be strike limited. Untested anomalies exist further along strike in the vicinity of the deposit suggesting local extensions are possible.



**Figure 7-3. Alpine Prospect Geology modified from CRAE, MRT and drill intersections**  
(Callaghan, 2019)



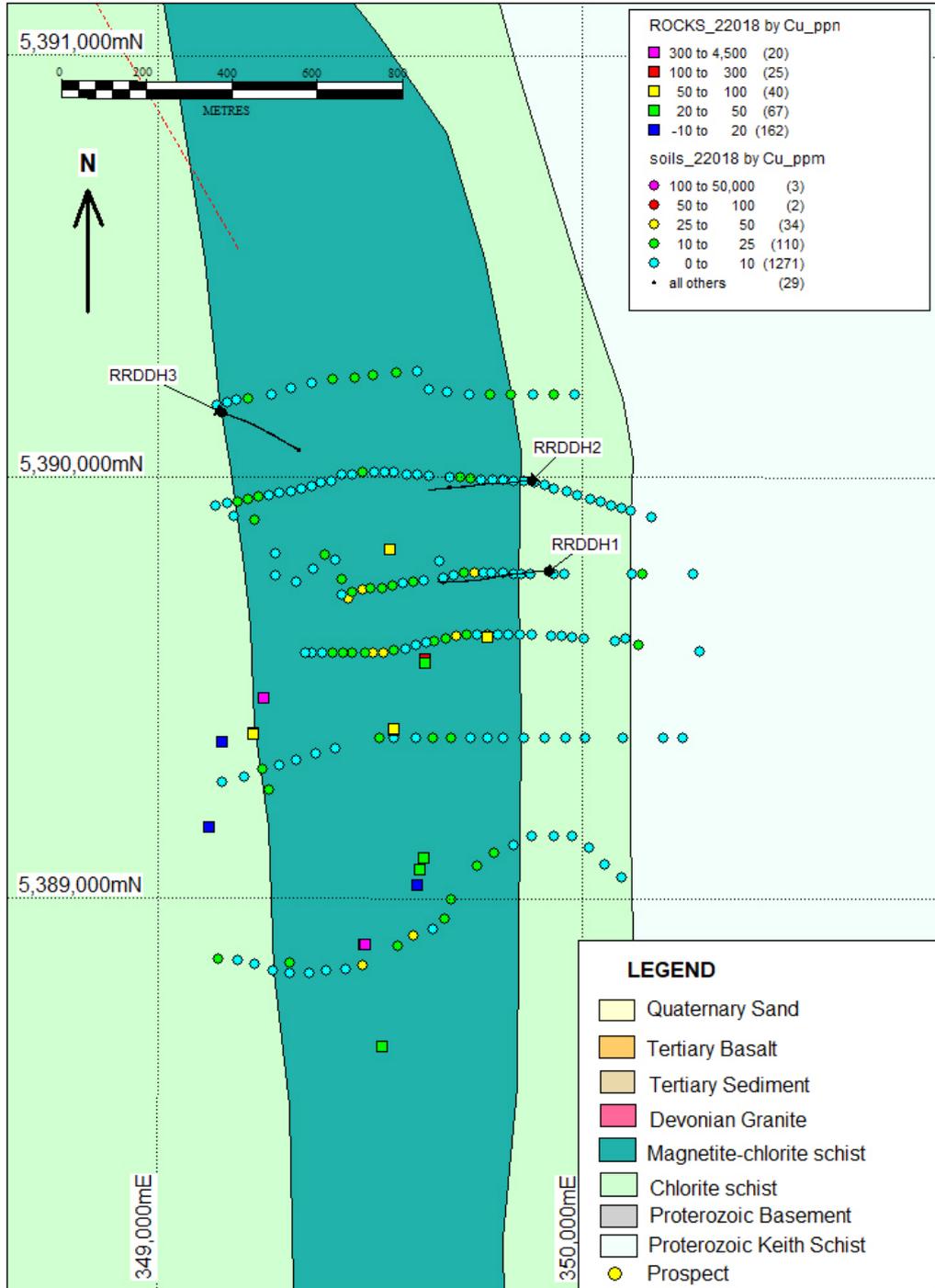
**Figure 7-4. Alpine Prospect Oblique Section .**  
(Callaghan, 2019)

#### **7.4.2 Rocky River Prospect**

The Rocky River Fe-Cu-Au Prospect was discovered in the early phase of prospecting in the late 1800's by the Rocky River Mining Company. The Rocky River locality is dominated by the magnetite-pyrite bearing Bowry Formation which strikes north-south and dips steeply west. The pelitic Keith Schist is located east of the Bowry Formation in faulted contact. All the rocks of the Arthur Metamorphic Lineament are strongly deformed with a steeply dipping penetrative foliation. Magnetite-sulphide forms dismembered lenses within the mafic schist. Pyrite forms crystalline and massive masses within the foliation. Minor chalcopyrite mineralization is associated with quartz-pyrite-carbonate veining that overprints the deformed magnetite.

Four historic adits delineated three magnetite lodes – Nos. 1 and 2 Lode and the Sawpit or Western Lode. The historical prospecting reports indicate that the lodes are lenticular with variable widths along their strike from tens of centimetres up to 10m wide. The lodes were tracked for about 250m along strike, and some 100m to 130m below their surface outcrops. Mineralization consisted of banded magnetite with subordinate pyrite calcite and siderite with minor chalcopyrite (Twelvetrees, 1900).

The magnetite-pyrite lodes are semi continuous along strike to the north and south.



**Figure 7-5. Rocky River Geology**  
 (Mineral Resources Tasmania open file data)

### 7.4.3 Lucy Spur Prospect

The Lucy Spur prospect is hosted by deformed unassigned Proterozoic pelitic and mafic sediments, located between the magnetite bearing mafic schists of the Lucy Spur Formation to the west and Bowry Formation to the east. The schistose rocks generally strike north south and dip steeply west although many open to isoclinal folds are present.

Gold mineralization in the Lucy Spur prospect area is described as occurring with silicic-phyllitic alteration, quartz veining and breccias associated with a felsic porphyry intrusion into a quartz-albite schist host sequence (Turner, 1998). Mapping and sampling by Goldstream at the Lucy Spur adits and alluvial workings indicate an association of Au-Sb-As-Cu in quartz-sulphide-carbonate veins and in phyllic altered intrusive breccia at the porphyry-schist contact. High-grade gold grades have been encountered locally, including up to 102.4 g/t Au from the adit workings and 17.3 g/t Au from outcrop in the alluvial workings area some 750m to the north although the majority of rock chip samples were below detection or only weakly anomalous. Two diamond drill holes in the adits area intersected mildly anomalous gold alteration but failed to intersect the granitoid. Discreet magnetic highs associated near the workings support the view that the drilling did not intersect the porphyry.

Other prospects in the vicinity include Lucy North, situated approximately 2km north of the Lucy Spur alluvial workings, where a 0.14% Cu rock chip was recorded from outcropping weathered schist immediately south of a discrete magnetic anomaly.

The Nancy Spur prospect, 1km west of Lucy Spur, is a 750m strike length coherent zone of elevated Cu-Au in soils overlying the Lucy Formation magnetic amphibolite.

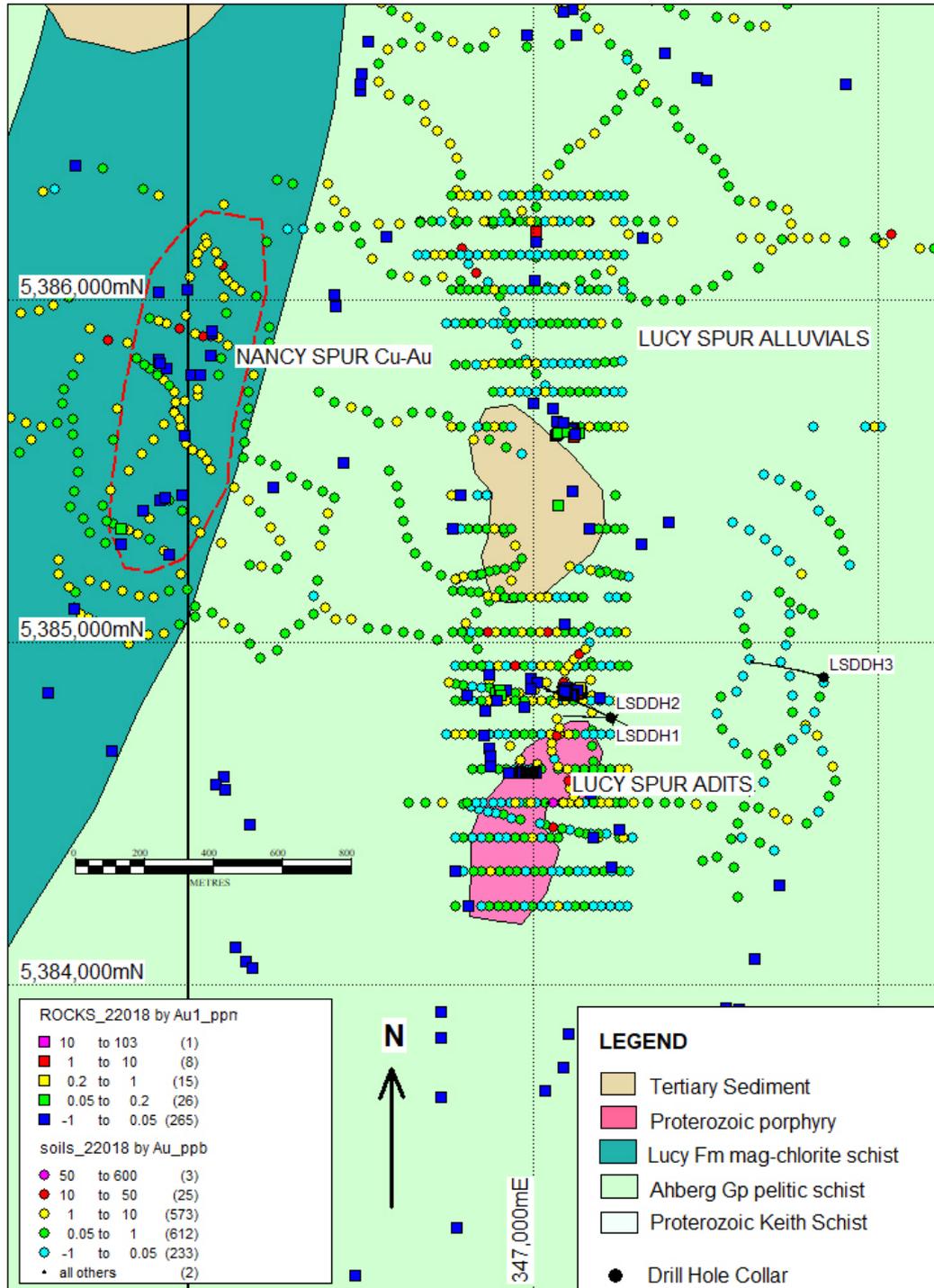
### 7.4.4 Doctors Creek – Owen Meredith Prospect

The Doctors Creek – Duffer Creek area is located some 8-9km NE of the Alpine Prospect (Figure 7-2). Ironstone units occur on the eastern and western margins of the Bowry formation (Herrmann, 1991) and are semi continuous with the magnetite-hematite lodes in the Rocky River area to the north.

The eastern magnetic units are described as banded siliceous ironstone occurring in association with disseminated/lenticular magnetite and pyrite in mafic albite-chlorite-quartz schists over widths of around 5m (Herrmann, 1991). The ironstones contain weak chalcopyrite and gold mineralization – up to 0.5% Cu and 0.3 g/t Au in grab sampling, with a 10m “chip” sample returning 0.12% Cu and 0.05 g/t Au (Herrmann, 1991). A 4m thick pyritic quartzite unit overlying the banded ironstones was noted to be anomalous with 0.4% Cu and 0.08 g/t Au but with no associated magnetite.

The western ironstone units are reported to be substantially thicker (up to 20m) than the eastern ironstones, consisting of essentially massive magnetite with lesser pyrite. The iron content of the western ironstone is notably higher, generally in the range of 65-70% Fe, but with low Cu and Au values. During 2010-2011 Bass Resources sampled the Doctors Creek area while exploring for potential iron ore deposits (Bates, 2011). Rock samples returned significant vanadium levels ranging from 0.11% to 0.63% V associated with 60.3% to 67.1% Fe grades in the massive ironstone units. Copper was generally low but up to 0.15% Cu.

Drilling by the Bass Metals-Venture JV intersected high grade magnetite-pyrite lodes of 5m to 10m width with low level Cu mineralization (Bates, 2011).



**Figure 7-6. Lucy Spur Geology**  
 (Mineral Resources Tasmania open file data)

## 8 DEPOSIT TYPES

The main deposit type being explored for on the Property are Iron oxide copper-gold (IOCG) deposits of Tennant Creek/Starra style.

Williams et al. (2005) describe Iron oxide copper-gold (IOCG) deposits as a diverse group of mineral deposits characterised by:

- Copper with or without gold, as economic metals
- Hydrothermal ore styles and strong structural controls
- Abundant magnetite and/or hematite
- No clear spatial associations with igneous intrusions

The potential for IOCG type deposits to occur within the Arthur Metamorphic Lineament is recognised based on the widespread occurrence of magnetite-hematite with associated copper and gold mineralization. The IOCG potential is predominantly hosted within the Bowry and Lucy Formations. The Bowry Formation also hosts the Savage River magnetite mine (>371Mt @ 31.9% Fe) and Long Plains magnetite deposits which have associated pyrite-chalcopyrite mineralization.

Historic exploration has identified an advanced exploration target in the Alpine Prospect, with other greenfield/drill targets existing within the Bowry and Lucy Formations on the Property.

## 9 EXPLORATION

### 9.1 EL2/2018

The Company acquired the Property in March 2018. Work to date has comprised field inspection, minor rock chip sampling, data compilation, gridding, and geological modelling of the Alpine prospect.

35 km of line cutting was completed over the Alpine Prospect in February-March 2021 followed by a ground based gravity survey.

A proposed infill/verification drilling program of the Alpine prospect has been designed to provide information for resource estimation. Drill tenders have been awarded and a drill rig mobilised in April 2021.

Data compilation and assessment of other prospects north of the Pieman Dam has commenced. Historic data has delineated several early-stage exploration targets that warrant additional investigation. No additional fieldwork has been completed by the Company on the prospects in the northern part of the Property.

#### 9.1.1 Alpine Prospect Geological Modelling

In 2019, the Company commissioned geology consultant Tim Callaghan to complete data compilation and modelling of the Alpine prospect to assess the exploration potential.

Data was derived from open file exploration reports available on the Mineral Resources Tasmania website. Data quality is not considered to be suitable for resource estimation due to poorly located drill collars (hand-held GPS) and a lack of bulk density measurements.

The model was used to quantify the mineralization and design infill and exploration drilling required for potential future resource estimation.

Solid models were created using Cu > 0.1%, 0.3% and 0.5% cut off limits allowing for geological continuity and minor internal dilution. Several continuous mineralized domains of more than 10m width were identified over a 700m strike length which remain open down dip and along strike (Figures 9-1 and 9-2). It was concluded that infill drilling to support and extend the historical drilling and technical studies including metallurgical testwork were warranted to fully assess the mineralization and provide information for potential resource estimation.

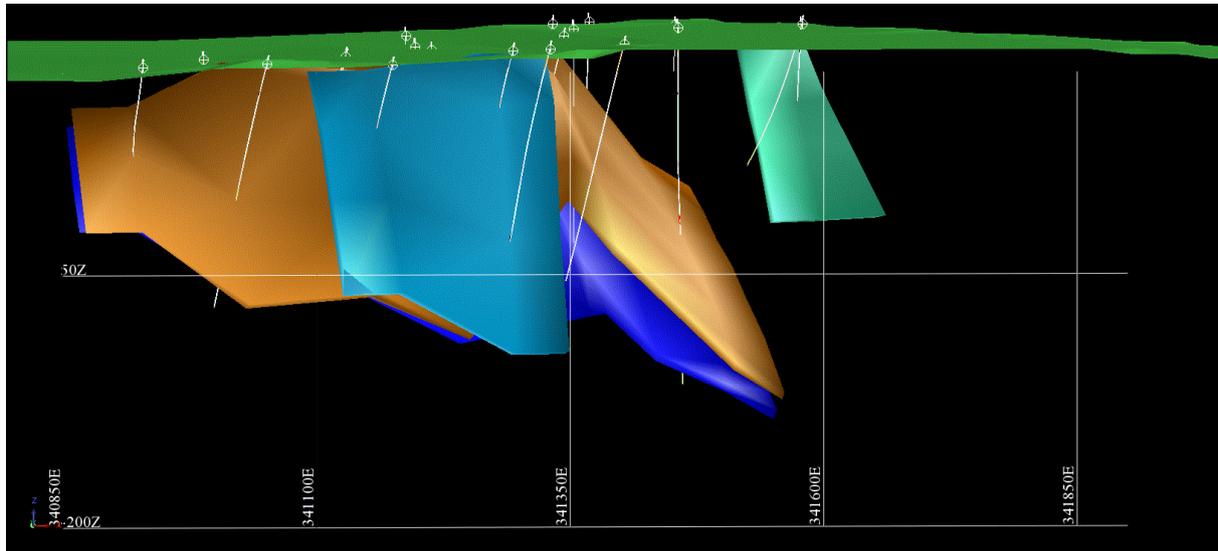
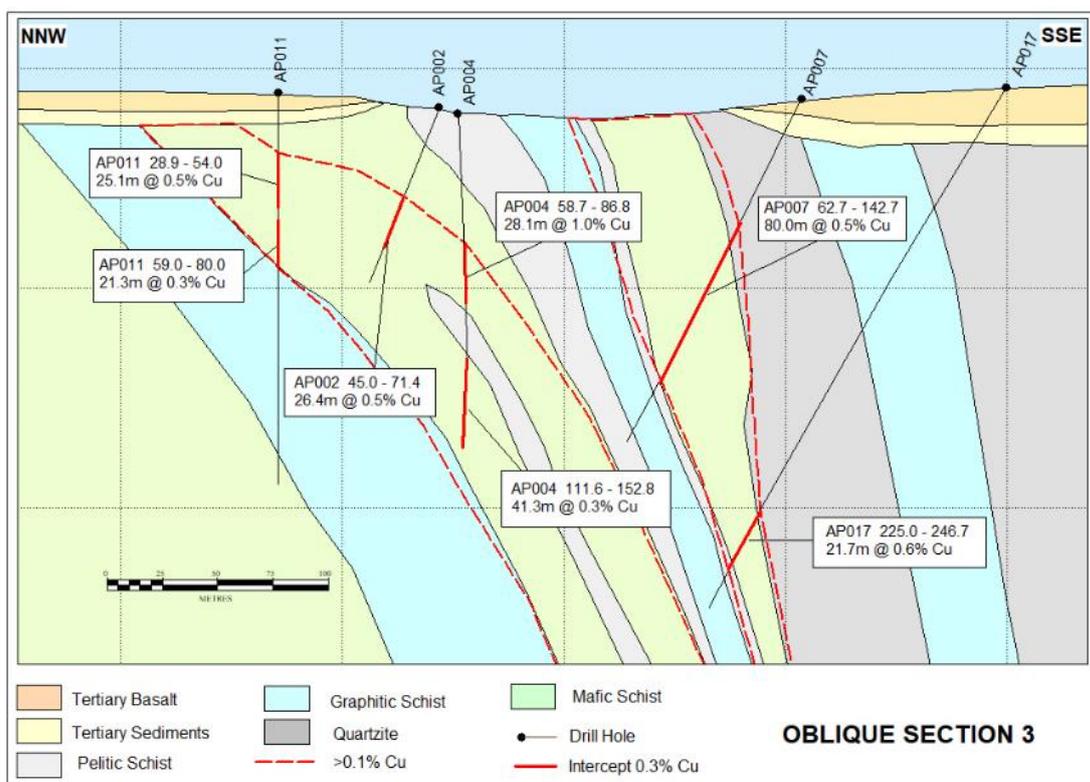


Figure 9-1. Alpine Prospect modelled Cu domains Cu>0.3%

(Callaghan, 2019)



**Figure 9-2. Alpine Prospect Oblique section**

(Callaghan, 2019)

**9.1.2 Alpine Prospect Outcrop Sampling**

The Company took a limited number of rock chip samples during field inspection of the Alpine prospect in 2019. A total of six rock chip samples were taken from gossan overlying the deposit. The rock chip samples validated the Cu-Co geochemical anomaly in the oxidised rock overlying the Alpine sulphide mineralization (Table 9-1).

**Table 9-1. Outcrop Rock Chip Sampling 2019**

| Sample Id | Easting | Northing | Cu % | Co ppm |
|-----------|---------|----------|------|--------|
| 105962    | 341020  | 5376788  | 0.00 | 42     |
| 105963    | 341027  | 5376807  | 0.00 | 41     |
| 105964    | 340958  | 5376794  | 0.22 | 55     |
| 405965    | 340872  | 5376787  | 0.09 | 37     |
| 105966    | 340899  | 5376799  | 0.19 | 72     |
| 105967    | 340964  | 5376780  | 0.16 | 151    |

**9.1.3 Alpine Prospect Gravity Survey**

The Company completed 35 km of line cutting over the Alpine prospect in February-March 2021, followed by a ground gravity geophysical survey. The gravity survey was completed by contract geophysical surveyors Fender Geophysics in April 2021. Gravity station readings were taken on a 200m spaced grid over the Alpine Prospect and surrounding area. A bouguer gravity high is associated with the deposit (Figure 9-3).

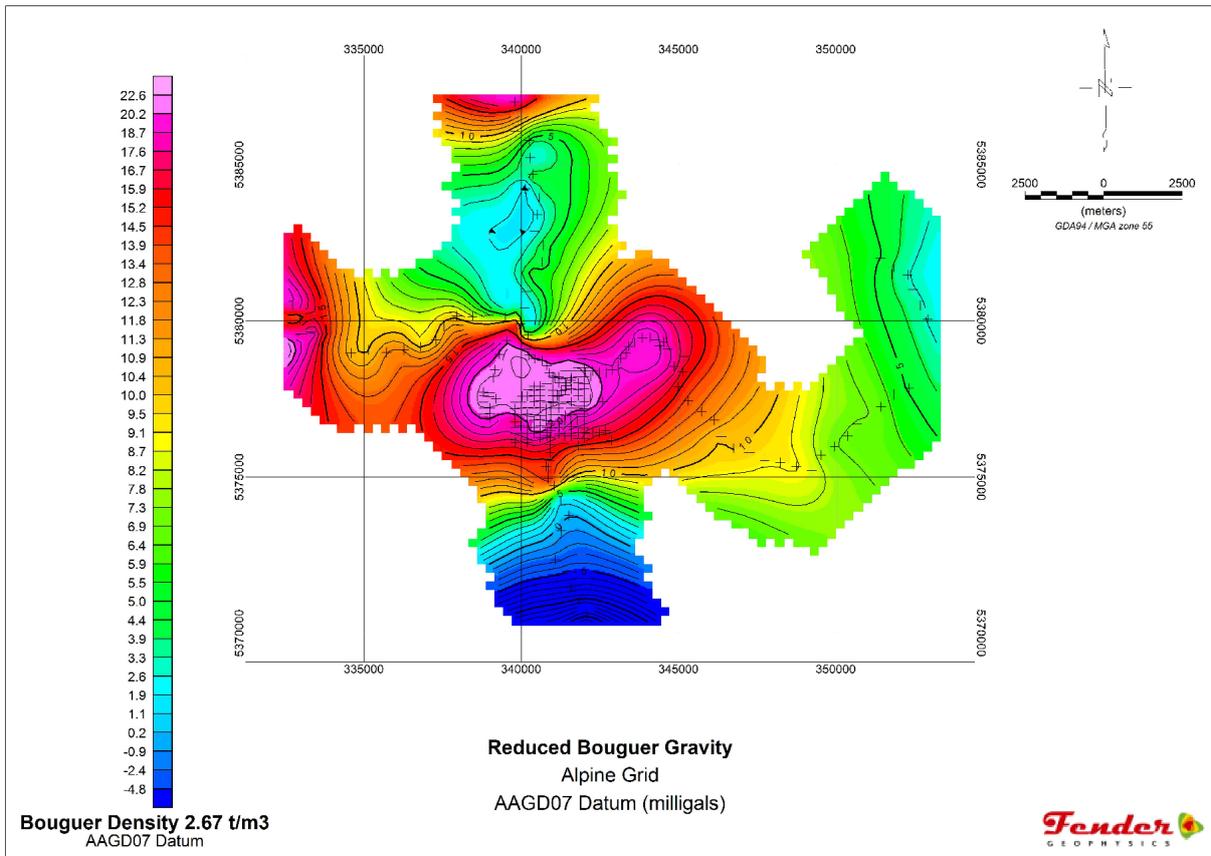


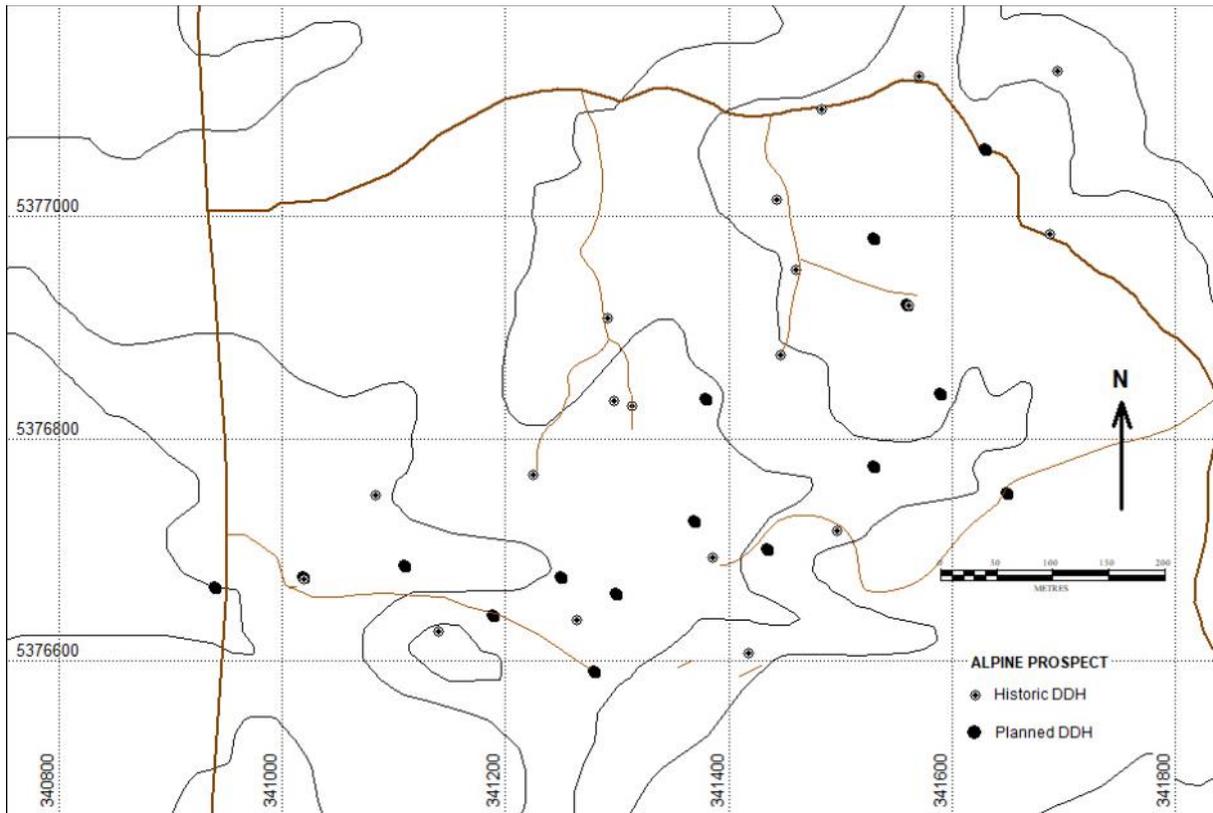
Figure 9-3. Alpine Prospect Reduced Bouguer Gravity Contours

## 9.2 MA ASSESSMENT AND PLANNED EXPLORATION BY THE COMPANY

### 9.2.1 Alpine Prospect

In MA’s opinion the Alpine Prospect is an advanced IOCG exploration prospect with significant mineralized historic diamond drillhole copper intercepts over a 700m strike length and to a depth of over 200m from surface. The prospect remains open down dip and potentially along strike. The historic drilling has defined continuous mineralization of a size and quality to suggest the prospect is a significant mineralized occurrence. Historic data quality was assessed and not considered to be adequate for resource estimation according to the guidelines of the 2012 edition of the JORC Code (Callaghan, 2019).

The Company propose to undertake data validation and verification and infill diamond drilling over the prospect with the aim of potentially completing a resource estimation according to the guidelines of the 2012 edition of the JORC Code (Figure 9-1). The proposed drilling program comprises 16 diamond drillholes for a total of 4,430m. The number and location of some drill holes may be revised as further information is acquired and interpreted during the process of drilling.

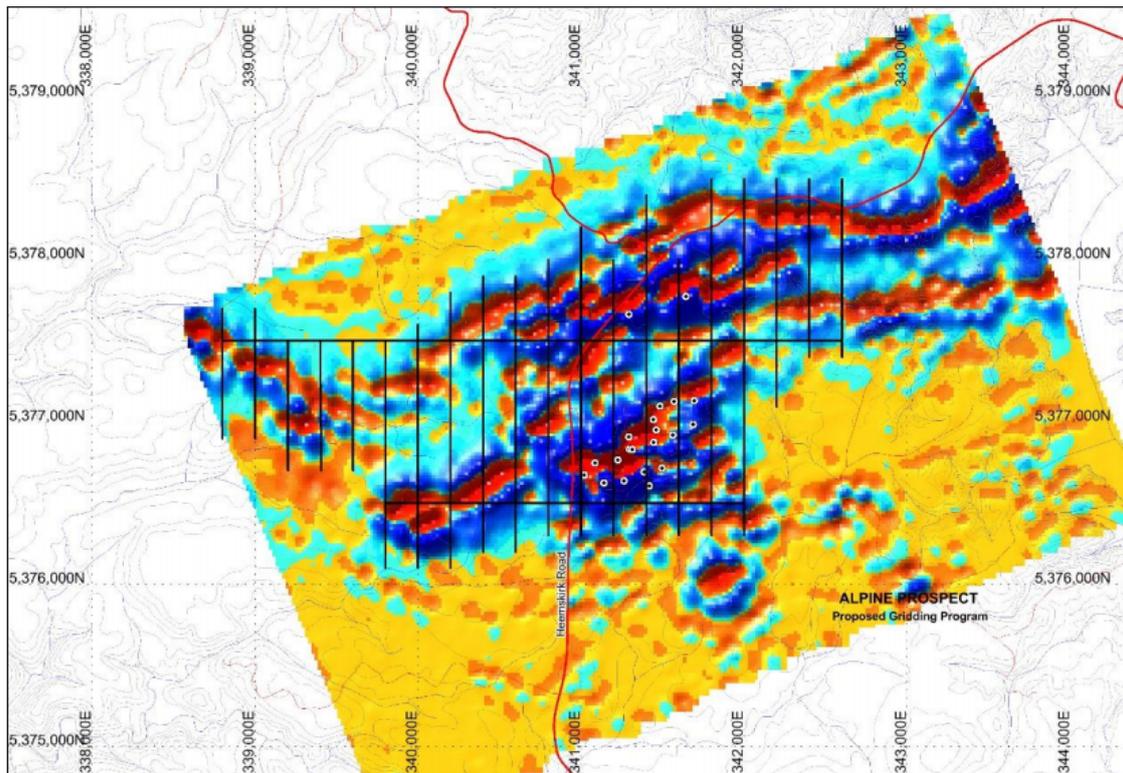


**Figure 9-4. Alpine Proposed Infill Drilling**  
(Westbrook, 2020)

The Company have planned the required technical studies including metallurgical test work, bulk density studies, geotechnical assessment, and preliminary mine design required to assist future resource estimation should the proposed drilling program prove successful.

### 9.2.2 Alpine Prospect Area

The untested aeromagnetic anomalies located in the Alpine Prospect area are considered to be in the early stages of exploration. It is MA’s opinion that the Bowry Formation magnetite schist justifies additional exploration including gridding and soil and rock chip geochemistry to determine if significant Cu-Au mineralization is associated with the geophysical anomalies. The Company has proposed an additional 35km of gridding, providing access for additional soil geochemistry, rock chip geochemistry, geological mapping, and ground geophysical surveys (Figure 9-5). The grid had been 85% cut on the date of issue of this report. Proposed geophysical and geochemical surveys have been planned and contractors engaged to complete the surveys by mid 2021.



**Figure 9-5. Alpine Prospect Locality proposed gridding and soil sampling survey**  
(Westbrook, 2020)

### 9.2.3 Rocky River Area

MA considers the Rocky River adits have had sufficient historic rock chip sampling and diamond drilling testing to suggest that this target is unlikely to host potentially economic copper-gold mineralization within the immediate vicinity of the historic mine workings and soil geochemistry grid.

However, the wider Rocky River area still has untested rock chip and stream sediment geochemical anomalies that provide sufficient encouragement to warrant further exploration including gridding and soil and rock chip geochemistry.

### 9.2.4 Lucy Spur Area

It is MA's opinion that historic geochemical and geophysical anomalies provide sufficient encouragement to warrant ongoing exploration including drill testing.

### 9.2.5 Doctors Creek – Owen Meredith

Data compilation in the Doctors Creek-Owen Meredith area is insufficient to adequately assess the potential of the area. It is MA's opinion that prominent geophysical magnetic anomalies provide sufficient encouragement to continue historic data compilation and target generation of this early stage exploration prospect. The potential for future exploration work programs should be re-assessed after all historic data has been collated and reviewed.

## 10 DRILLING

The Company has not completed any drilling on the property. Results of historic drilling completed by CRAE, Goldstream and Stellar are summarised in Section 6.

## 11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The Company's sampling methodology and approach is dictated by both the nature of the exploration being undertaken (i.e. initial regional exploration and more detailed follow-up of identified targets and prospects) and the limitations imposed by both the topography and the thick vegetation that characterises the project area.

### 11.1 PROSPECT SCALE SAMPLING

Most of the prospects on the Property have had preliminary float and rock chip sampling completed by historic exploration companies during regional stream sediment geochemistry. More advanced prospects have had historic adit and rock chip sampling completed during gridding and soil sampling surveys. The Company are in the process of collating and validating the historic data.

Verification sampling has been completed on the Alpine prospect during field visits.

### 11.2 SAMPLE HANDLING AND SHIPMENT

Sample handling and shipment of historic prospects has not been documented. All previous exploration has been completed by reputable exploration companies by qualified exploration personnel, many of whom are known by the author of this document. The volume and consistency of the historic data, some of which is supported by subsequent historic and recent sampling, suggests there is no reason to doubt the validity of sample handling and shipment.

The Company's samples are bagged into individually numbered calico bags and then consolidated into batches of 5-10 samples and placed into polyweave sacks that are sealed. Samples are either transported by registered courier or the Company's employees to ALS laboratories in Burnie for shipment to ALS Townsville or SGS laboratories in Perth.

### 11.3 ASSAY LABORATORIES

Assaying laboratories and analytical methods used in historic exploration has not been documented.

The Company sends all samples for assay to SGS ("SGS"), a commercial laboratory in Perth, Australia for sample preparation and analysis. Samples are analysed with a 4-acid digest and ICP-MS finish for 40 elements (Method ICP-40Q). Gold is determined by fire assay using a 50g charge and atomic absorption spectrometry (AAS) finish (Method FAA505).

The Company intend to send future samples to commercial laboratory ALS Laboratories based in Burnie for sample preparation and analysis. Samples will be analysed with 4 acid digest and ICP-MS finish for 61 elements (Method ME-MS61). Gold will be determined by 50g charge and atomic absorption spectrometry (AAS) finish (Method Au-GRA21).

## 12 DATA VERIFICATION

Data verification undertaken by MA included an independent review of open file reports submitted to the MRT by previous tenement holders.

Mr. Tim Callaghan, (AusIMM, MAIG), of Mining Associates Pty Ltd visited the Property from 31<sup>st</sup> August to 2<sup>nd</sup> September 2020. Known outcrop locations were checked in the field with GPS and compared to the Company's database. Drill collar locations were checked in the field by handheld GPS and on aerial photographs.

Mr. Callaghan also visited Mineral Resources Tasmania’s core library in Hobart for the purpose of reviewing exploration results and independently sampling historic drill core from the Alpine prospect held in the MRT core library. The drill hole database and surface sample database (rock chip and soils) were reviewed online via the MRT web portal [www.mrt.tas.gov.au](http://www.mrt.tas.gov.au).

Mr. Callaghan has also held discussions with a Company director, Mr. Sam Garrett, and the Company’s Senior Exploration Consultant, Mr. Sean Westbrook, in July 2019 and in September 2020.

## 12.1 INDEPENDENT SAMPLES

Mr. Callaghan collected ten independent samples of quarter diamond drill core from historic Alpine drill holes AP004 and AP007. Samples were selected from what was interpreted to be “average mineralized zones” containing magnetite-hematite-pyrite-chalcopyrite and siderite.

The bagged and sealed samples were transported under supervision of Mr. Callaghan to ALS Laboratories in Burnie for sample preparation and shipment to ALS Laboratories in Townsville under the supervision of ALS Laboratories.

ALS is an independent laboratory that has developed and implemented a Quality Management System (“QMS”) at each of its locations designed to ensure the production of consistently reliable data. The ALS quality program includes quality control steps through sample preparation and analysis, interlaboratory test programs, and regular internal audits and takes into consideration the requirements of ISO/IEC 17025:2017 and ISO 9001:2015. ALS maintains ISO registrations and accreditations, which provide independent verification that a QMS is in operation at the location in question. Sample descriptions and copper grades are summarised in Table 12-1.

**Table 12-1. Independent Sample Descriptions**

| BHID  | From   | To     | Spl_Id | Description   | Historic Cu% 1 | MA Cu% 2 |
|-------|--------|--------|--------|---|----------------|----------|
| AP004 | 132.9  | 133.9  | 30010  | Chlorite-albite-magnetite-pyrite schist.                  | 0.35           | 0.36     |
| AP004 | 133.9  | 134.9  | 30011  | Chlorite-albite-magnetite-pyrite schist.                  | 0.28           | 0.26     |
| AP004 | 134.9  | 135.9  | 30012  | Chlorite-albite-magnetite-pyrite schist.                  | 0.74           | 0.56     |
| AP004 | 135.9  | 136.65 | 30013  | Chlorite-albite-magnetite-pyrite schist.                  | 0.47           | 0.48     |
| AP004 | 136.65 | 137.25 | 30014  | Banded black, graphitic phyllite and massive pyrite.      | 0.57           | 0.61     |
| AP007 | 87.0   | 88.0   | 30015  | Qtz-carb sandstone with disseminated Py-magnetite-cpy     | 0.55           | 0.29     |
| AP007 | 88.0   | 89.0   | 30016  | Qtz-carb sandstone with disseminated Py-magnetite-cpy     | 0.31           | 0.28     |
| AP007 | 89.0   | 90.0   | 30017  | Qtz-carb sandstone with disseminated Py-magnetite-cpy     | 0.35           | 0.40     |
| AP007 | 90.0   | 91.0   | 30018  | Banded massive magnetite-pyrite-carbonate with cpy dissem | 0.75           | 0.81     |
| AP007 | 91.0   | 92.0   | 30019  | Banded massive magnetite-pyrite-carbonate with cpy dissem | 0.80           | 0.82     |

There is excellent correlation between historic drill sample copper grades (Table 12-1 Cu% 1) compared with the verification duplicate samples from corresponding quarter core intervals (Table 12-1 Cu% 2).

In MA’s opinion, geological data collection and sampling is in line with industry best practice as defined in the Canadian Institute of Mining and Metallurgy and Petroleum (CIM) Exploration Best Practice Guidelines and the CIM Mineral Resource, Mineral Reserve Best Practice Guidelines.

### **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

The Company have commenced metallurgical test work on the Alpine prospect as part of technical studies required for resource estimation.

The Company has prepared 3 samples derived from quartered drill core from historic drill holes stored in MRT's core library. Samples were collected over three nominal copper grade ranges: low-grade, mid-grade and high-grade. Individual samples within each of the grade-ranges will be combined and homogenised to create three "bulk samples" (i.e. one bulk sample for each nominal grade range).

The samples have been submitted to SGS laboratories for mineralogical analysis with a particular focus on Cu, Fe and Co mineral assemblages, abundance, grain size distribution, mineral association, locking and liberation. The mineralogy test work results will inform the design of bench scale metallurgical programs that will test the recovery of separate copper and magnetite concentrates from the bulk samples.

Results were not available at the time of this report.

### **14 MINERAL RESOURCE ESTIMATES**

There are no defined mineral resources within the Property.

**15 MINERAL RESERVE ESTIMATES**

This Item is not applicable for this report.

**16 MINING METHODS**

This Item is not applicable for this report.

**17 RECOVERY METHODS**

This Item is not applicable for this report.

**18 PROJECT INFRASTRUCTURE**

This Item is not applicable for this report.

**19 MARKET STUDIES AND CONTRACTS**

This Item is not applicable for this report.

**20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACT**

This Item is not applicable for this report.

**21 CAPITAL AND OPERATING COSTS**

This Item is not applicable for this report.

**22 ECONOMIC ANALYSIS**

This Item is not applicable for this report.

### 23 ADJACENT PROPERTIES

The Property has no adjoining tenements to the east or west. The Company have applied for additional exploration properties, ELA23/2020 and ELA25/2020 adjacent to EL2/1998 which have yet to be granted.

Grange Resources, the operators of the Savage River Iron Ore mine, hold exploration licence EL30/2003 to the north of the tenement. Ten Star Mining hold EL9/2019 to the immediate south of the tenement.

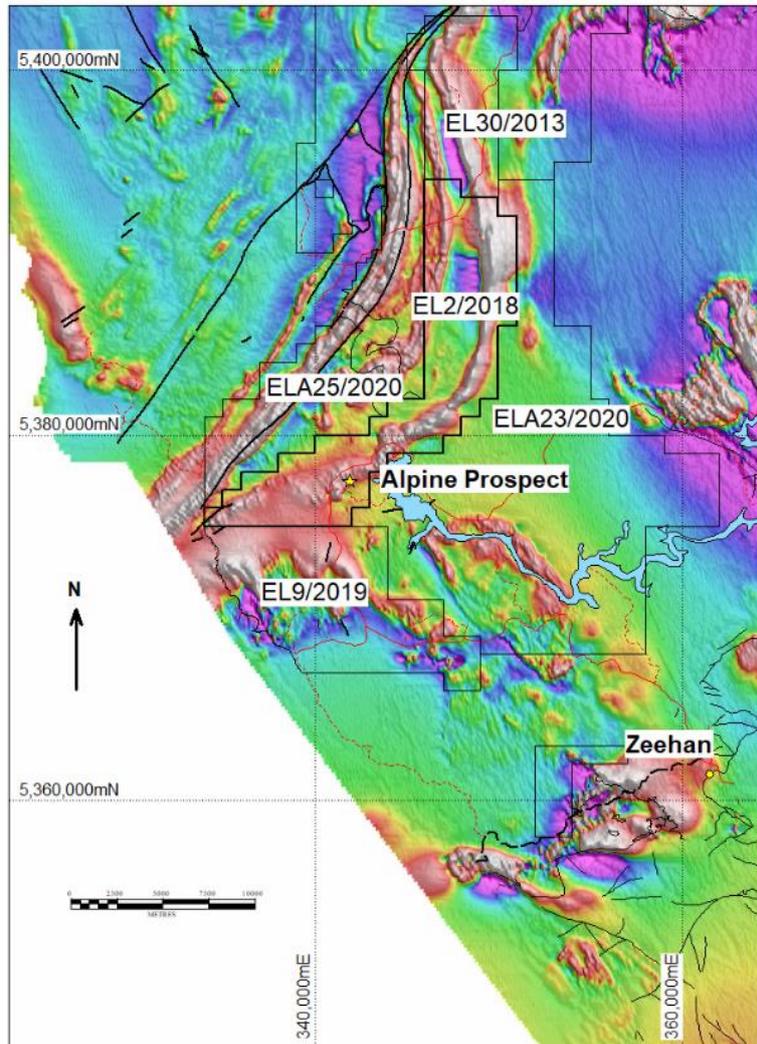


Figure 23-1. Alpine Prospect EL2/2018 and adjacent ELs over aeromagnetic image  
(Mineral Resources Tasmania open file data)

### 24 OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other relevant data and information.

## 25 INTERPRETATION AND CONCLUSIONS

Historic exploration of the area now covered by EL2/2018, commenced in the 1960s and has identified several early stage IOCG prospects, and one intermediate/advanced stage IOCG prospect.

Initial exploration consisted of regional airborne geophysical surveys. The development of the Savage River Iron Ore mine in the 1960's saw the identification of several substantial magnetite lodes associated with deformed Proterozoic schists of the Arthur Metamorphic Lineament. Reconnaissance stream sediment sampling identified numerous gold drainage anomalies. Au drainage anomalies associated with magnetite bearing schists have been followed up with historic rock chip and soil geochemical programs. Four prospects have been tested by historic diamond drilling programs.

The most advanced target is the Alpine IOCG target originally identified by CRAE which is the primary focus of the Company's exploration effort. The Alpine Prospect has had 22 historic exploration diamond drill holes completed for 3,991.6m. Most holes intersected magnetite-hematite-pyrite-chalcopyrite mineralization of significant length and grade and the target is considered to be worthy of additional exploration.

The Company have commenced data compilation and detailed interpretation of the historic exploration data. Only limited reconnaissance field work has been completed by the Company since acquiring the tenement.

MA concurs with the Company's view that the Alpine Prospect remains the priority target for exploration and development within EL2/2018. MA has reviewed and supports the Company's exploration work proposals for extensive gridding and soil geochemical exploration (35km) and drilling programs (18 diamond drillholes totalling 4,320m). Drilling programs should be designed with the objective of adequately testing if mineralization is of sufficient style, quantity, and grade for resource estimation. MA agrees with CCR's view that the necessary technical studies associated with resource estimation should be completed.

MA also concurs with the Company's view that further assessment of early stage exploration targets in the Alpine, Lucy Spur, Doctors Creek and Rocky River areas is justified. Proposed exploration for these areas includes data collation and targeting. At this stage the Company have not proposed additional exploration beyond data collation and assessment.

## 26 RECOMMENDATIONS

In the author's opinion the Alpine Prospect represents a high priority target warranting additional infill and exploration drilling.

The mineralization defined by historic drilling suggests potential to advance to resource estimation if the proposed drilling successfully confirms sufficient style, quantity, and grade of mineralization to satisfy the guidelines of the 2012 edition of the JORC Code<sup>1</sup>. MA considers the proposed drilling program of 18 diamond holes for 4,320m and technical studies including metallurgical test work, bulk density determinations, data verification, and QAQC to be adequate to test this potential.

The proposal to extend early stage reconnaissance exploration of gridded soil and rock chip sampling locations to other magnetic anomalies in the vicinity of the Alpine Prospect is considered warranted by MA.

Future verification sampling of early stage prospects and some twinned drillholes of the advanced Alpine Prospect are recommended.

A one year field program and budget proposed by MA for the Alpine Prospect area on the Property is summarised in Table 26-1 below:

**Table 26-1. Proposed 12 month Exploration Program and Budget (AUD\$)**

| <b>Prospect</b>    | <b>Work Programme</b>   | <b>Total</b>       |
|--------------------|---|--------------------|
| Alpine             | Exploration personnel, management, and consultants                        | \$330,000          |
| Alpine             | Assays and geochemistry   | \$200,000          |
| Alpine             | Geophysics (gravity and IP)   | \$190,000          |
| Alpine             | Track cutting and gridding  | \$95,000           |
| Alpine             | Diamond drilling (4000m)  | \$600,000          |
| Alpine             | Environment land access and rehab   | \$25,000           |
| Alpine             | Metallurgical studies   | \$40,000           |
| Logistical Support | Logistics and Administration (Exploration office, vehicles, and supplies) | \$170,000          |
| Contingency        | 10% Contingency   | \$165,000          |
| GST                | <b>10% GST</b>  | <b>\$182,000</b>   |
| <b>Total</b>       |   | <b>\$2,000,000</b> |

For and on behalf of Mining Associates Limited

Tim Callaghan BSc (Hons), M Econ Geol, AusIMM, MAIG

Qualified Person

Effective Date: 18 April 2021

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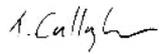
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**DATE AND SIGNATURE PAGE**

This report titled “**INDEPENDENT TECHNICAL REPORT ON EL2/2018 TASMANIA AUSTRALIA** and dated 18 April 2021 was prepared and signed by the following author:

Dated at Penguin, Tas  
18 April 2021



Tim Callaghan  
BSc (Hons), M. Econ. Geol. MAusIMM. MAIG  
Qualified Person

**CERTIFICATE OF QUALIFIED PERSON**

**TIMOTHY JOHN CALLAGHAN**

I, Timothy John Callaghan hereby certify that:

I am a Consulting Geologist and Professional Geoscientist residing at 3 Main Street, Penguin, Tasmania 7316 Australia (Telephone +61-428 888 896). I am independent of the issuer as independence is described in Section 1.5 of NI 43-101.

I graduated from the University of Tasmania, Australia in 1990 with a B.Sc. (Hons) in Geology and from the University of Tasmania in 1998 with a Masters of Economic Geology.

I have over 30 years' experience in the minerals industry as a Geologist in the fields of mineral exploration, mine geology and mineral resource estimation. I have had senior exploration roles with Aurion Gold, Tasgold Ltd, and Allegiance Metals. I have conducted evaluation of advanced exploration and mining projects in Australia, Chile, and Bolivia. I worked as Chief Geologist at Avebury Nickel Mine (Allegiance Metals Ltd) from 2004 to 2009. At this mine I was responsible for mine and exploration geology, mine planning, environment, drilling, and resource estimation.

Since 2009, I have been an exploration and mining consultant in Australia and Chile involved with exploration program management, resource estimation, and resource evaluation on tenements prospective for epithermal gold, tin, tungsten, volcanogenic gold, volcanic hosted massive sulphide (VHMS), iron oxide copper gold (IOCG) and porphyry copper-gold deposits including regional exploration targeting through to deposit resource drilling and resource estimation.

Applicable to the Alpine Project is my extensive experience in mineral deposits associated with Tasmanian granite and volcanogenic terrains specifically the Avebury Nickel Skarn, King Island Scheelite skarn, Heemskirk Tin, Henty Gold, Rosebery VHMS, Mt Darwin and Mt Jukes IOCG and Kara magnetite-scheelite skarns. I have also worked on epithermal/hydrothermal, IOCG and porphyry-style mineralization in similar environments in Chile, Bolivia as well as Australia.

I am a Member of the Australian Institute of Geoscientists (Member No.7734).

For the purposes of the Technical Report entitled: "Independent Technical Report, Alpine Property EL2/2018", effective date 18th April 2021, of which I am a sole author and responsible person. I am a Qualified Person as defined in National Instrument 43-101 ("the Rule"). I am wholly responsible for the preparation of Sections 1 to 27 of the technical report.

I have visited the Alpine Property on the 17th and 18th of June 2019, and the 30th August to 1st September 2020. I completed data compilation and geological modelling of historic data on the Alpine prospect as an independent consultant in 2019.

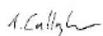
I have read the Rule and this technical report is prepared in compliance with its provisions. I have read the definition of "qualified person" set out in the Rule and certify that by reason of my education, affiliation with a professional association (as defined in the Rule) and past relevant work experience, I fulfil the requirement to be a "qualified person" for the purposes of the Rule.

To the best of my knowledge, information, and belief the technical report contains all scientific and technical information that is required to be disclosed to make this report not misleading.

I have no direct or indirect interest in the properties which are the subject of this report and I have not been involved with the Property prior to 2019. I do not hold, directly or indirectly, any shares in CopperCorp Resources Inc. or other companies with interests in the exploration assets thereof. I am independent of EL2/2018 and the Property, as independence is described by Section 1.5 of NI 43-101.

I will receive only normal consulting fees for the preparation of this report.

Signed at Penguin this 18th April 2021.



Timothy John Callaghan, BSc Hons, M, Econ Geol, MAIG, AusIMM

## GLOSSARY OF TECHNICAL TERMS

This glossary comprises a general list of common technical terms that are typically used by geologists. The list has been edited to conform in general to actual usage in the body of this report. All units are metric units (SI units), except pounds (lb) and ounces (oz). However, the inclusion of a technical term in this glossary does not necessarily mean that it appears in the body of this report, and no imputation should be drawn. Investors should refer to more comprehensive dictionaries of geology in printed form or available in the internet for a complete glossary.

|                                  |   |
|----------------------------------|---|
| “Au”                             | chemical symbol for gold  |
| “bulk density”                   | The dry in-situ tonnage factor used to convert volumes to tonnage. Bulk density testwork is carried out on site and is relatively comprehensive, although samples of the more friable and broken portions of the mineralized zones are often unable to be measured with any degree of confidence, therefore caution is used when using the data.  |
| “cut-off grade”                  | The lowest grade value that is included in a resource statement. Must comply with JORC requirement 19 “ <i>reasonable prospects for eventual economic extraction</i> ” the lowest grade, or quality, of mineralized material that qualifies as economically mineable and available in a given deposit. May be defined on the basis of economic evaluation, or on physical or chemical attributes that define an acceptable product specification.             |
| “Cu”                             | Chemical Symbol for Copper  |
| “diamond drilling, diamond core” | Rotary drilling technique using diamond set or impregnated bits, to cut a solid, continuous core sample of the rock. The core sample is retrieved to the surface, in a core barrel, by a wireline.  |
| “down-hole survey”               | Drillhole deviation as surveyed down-hole by using a conventional single-shot camera and readings taken at regular depth intervals, usually every 50 metres.  |
| “drill-hole database”            | The drilling, surveying, geological and analyses database is produced by qualified personnel and is compiled, validated and maintained in digital and hardcopy formats..  |
| “g/t”                            | grams per tonne, equivalent to parts per million  |
| “g/t Au”                         | grams of gold per tonne   |
| “gold assay”                     | Gold analysis is carried out by an independent ISO17025 accredited laboratory by classical ‘Screen Fire Assay’ technique that involves sieving a 900-1,000 gram sample to 200 mesh (~75microns). The entire oversize and duplicate undersize fractions are fire assayed and the weighted average gold grade calculated. This is one of the most appropriate methods for determining gold content if there is a ‘coarse gold’ component to the mineralization. |
| “IOCG”                           | Iron oxide copper gold  |
| “micron (μ)”                     | Unit of length (= one thousandth of a millimetre or one millionth of a metre).  |
| “Mineral Resource”               | A concentration or occurrence of material of intrinsic economic interest in or on the Earth’s crust in such form, quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity,  |

|               |  |
|---------------|--|
|               | grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated and Measured categories when reporting under JORC.                             |
| “oz”          | Troy ounce (= 31.103477 grams). Moz = million troy ounces  |
| “QA/QC”       | Quality Assurance/Quality Control. The procedures for sample collection, analysis and storage. Drill samples are despatched to ‘certified’ independent analytical laboratories for analyses. Blanks, Duplicates and Certified Reference Material samples should be included with each batch of drill samples as part of the Company’s QA/QC program. |
| “RC drilling” | Reverse Circulation drilling. A method of rotary drilling in which the sample is returned to the surface, using compressed air, inside the inner-tube of the drill-rod. A face-sampling hammer is used to penetrate the rock and provide crushed and pulverised sample to the surface without contamination.   |
| “survey”      | Comprehensive surveying of drillhole positions, topography, and other cadastral features is carried out by the Company’s surveyors using ‘total station’ instruments and independently verified on a regular basis. Locations are stored in both local drill grid and UTM coordinates.   |
| “t”           | Tonne (= 1 million grams)  |