

# **Intec Hellyer Metals Pty Ltd**

ACN 104 931 768



## **Exploration Opportunities**

**Gold, Copper, Zinc-Lead-Silver Exploration Targets  
Adjacent to the Hellyer Mill**

**19 May 2004**

---

## Table of Contents

<b>Executive Summary</b> .....	<b>3</b>
<b>Project Background</b> .....	<b>6</b>
<b>Introduction</b> .....	<b>6</b>
<b>Tenements</b> .....	<b>6</b>
<b>Regional Geology</b> .....	<b>7</b>
<b>Local Hellyer Geology</b> .....	<b>9</b>
<b>Previous Exploration &amp; Mining</b> .....	<b>12</b>
<b>Exploration Targets</b> .....	<b>16</b>
<b>Advanced Prospects with Drill-Ready Targets</b> .....	<b>18</b>
1. Que River “S Lens” Copper Prospect .....	18
2. Mt Charter Gold Prospect .....	21
<b>Drill-Ready or Near Drill-Ready Targets</b> .....	<b>24</b>
3. Hellyer-style Targets.....	24
4. Maverick Target.....	29
<b>Conceptual “Greenfields” Targets</b> .....	<b>29</b>
5. Southwell, a Henty-style Gold Target .....	29
6. Black Harry Anomaly .....	32
7. Bulgobac River Anomalies.....	32
8. Potential Airborne Geophysical Anomalies.....	32
<b>References</b> .....	<b>33</b>
<b>Disclaimer</b> .....	<b>34</b>
<b>Appendix – Que River S Lens data</b> .....	<b>35</b>

Frontispiece: Hellyer, looking south, with the mine portal to left and Que River in the background.  
High tensile powerlines follow the ‘gash’ through the forest.

Gordon Chiu Building J01  
Department of Chemical Engineering  
Maze Crescent  
University of Sydney NSW 2006  
Australia

Telephone: +612-9351-6741  
Facsimile: +612-9351-7180  
Email: mail@intec.com.au  
Website: www.intec.com.au

## Exploration Opportunities

### Gold, Copper, Zinc-Lead-Silver Exploration Targets Adjacent to the Hellyer Mill

#### *Executive Summary*

Intec Hellyer Metals Pty Ltd (IHM), a wholly owned subsidiary of Intec Ltd (Intec), a listed company on the Australian Stock Exchange (ASX code: INL), controls 3 granted Mining Leases, 1 granted Exploration Licence, 1 granted Retention Licence and 1 Exploration Licence Application, covering an area of approximately 68km<sup>2</sup> in the immediate vicinity of the Hellyer Mill complex.

Over recent months, Intec has conducted a comprehensive review of the exploration opportunities adjacent to the Hellyer Mill and is now able to confirm a number of advanced projects and drill-ready exploration targets as outlined below.

Intec therefore now intends to commence commercial discussions with appropriate parties to progress these exploration opportunities that are considerably enhanced by the proximate availability of the Hellyer Mill.

#### **Background**

The Hellyer and Que River tenement package exists within the Mt Read Volcanics Belt that hosts a prolific number of base and precious metals projects (see Figure 1). Significant potential exists for Cu-rich massive sulphides, Au-rich barite deposits and polymetallic Zn-Pb-Ag-Cu-Au sulphide deposits in the project area adjacent to the Hellyer Mill complex.

Previous exploration has been strongly driven by a Zn-Pb-Ag focus and predicated on traditional Mt Read Volcanics Hosted Massive Sulphide (VHMS) models. IHM has now identified two advanced Cu-Au prospects and a number of Zn-Pb-Ag-Au targets (see Figure 10). It is considered likely that additional targets would be defined by a thorough and integrated approach, using a more broadly-based exploration model.

#### **Potential exists in the Que River S lens for a reserve of 1 – 2 Mt @ 1- 2% Cu and 1oz/t Ag.**

Outcropping Cu-rich massive sulphide mineralisation occurs in the Que River S Lens and is known to extend for approximately 150m along strike and 130m down dip in a subvertical body with an average thickness of 6m. It is not known how much was mined from the original 1976 Abminco-defined reserve of 860,500t @ 1.1%Cu, 1.8%Pb, 3.7%Zn & 40g/t Ag. Verbal comments suggest that the Pb-Zn material was selectively mined leaving approximately 180,000t of Cu-rich material, to the southern end of the lens, which graded 2.3% Cu, 38g/t Ag, 0.07% Pb, 0.13% Zn in the original Abminco estimate of the Cu-rich blocks.

---

Best results in the remaining S lens are:

- 8.3m @ 3.3% Cu, 28 g/t Ag in QR04
- 15.2m @ 1.6% Cu, 56 g/t Ag in QR92

**The Mt Charter prospect has the potential to host a reserve of 10Mt @ 3g/t Au.**

A poorly-drilled outcropping Au-rich vein system occurs at the Mt Charter Prospect which is approximately 7 km from the Hellyer Mill. Better intersections in the prospect include:

- 58m @ 1.8 g/t Au, 31 g/t Ag, 1% Zn; including 8m @ 3.6 g/t Au
- 30m @ 0.9 g/t Au, 10g/t Ag, 2.8% Zn, 1.6%Pb
- 6m @ 2.9 g/t Au

Mineralisation is associated with a substantial barite-bearing alteration zone of approximately 1 km in strike length. Drilling within the mineralised zone has been irregular and typically on 100 – 400 m centres. The mineralisation is open to the east, southeast and west.

Previous exploration was mainly focused on base metal potential and diamond core was dominantly sampled by core grinding. Excellent potential exists to improve the grade of the prospect by assaying half core.

Mt Charter has an Inferred Mineral Resource of 10Mt @ 1.0 g/t Au, extractable by opencut from surface down to 137m depth. This was calculated by Aberfoyle Resources Ltd in 1992 by rockchip sampling and drilling on the southeastern end of the alteration zone (Wallace, 1992; conformed to JORC standards by McNeill, 1998). Potential exists to expand this resource with more drilling & assaying.

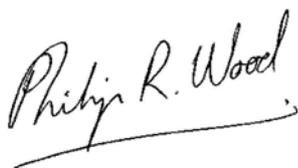
**Drill-ready targets**

Adjacent to Hellyer are four drill-ready or near drill-ready polymetallic massive sulphide targets which have been identified by the preliminary Intec review.

**Conceptual targets**

A number of conceptual “greenfields” targets, including in particular the Henty-style gold target called Southwell, have been developed. This work is based on a new form of data visualisation using aeromagnetic and gravity data recently provided by the Tasmanian Government, but not available to previous explorers.

For and on behalf of the Intec Group



Philip R Wood  
Managing Director and Chief Executive Officer

19 May 2004

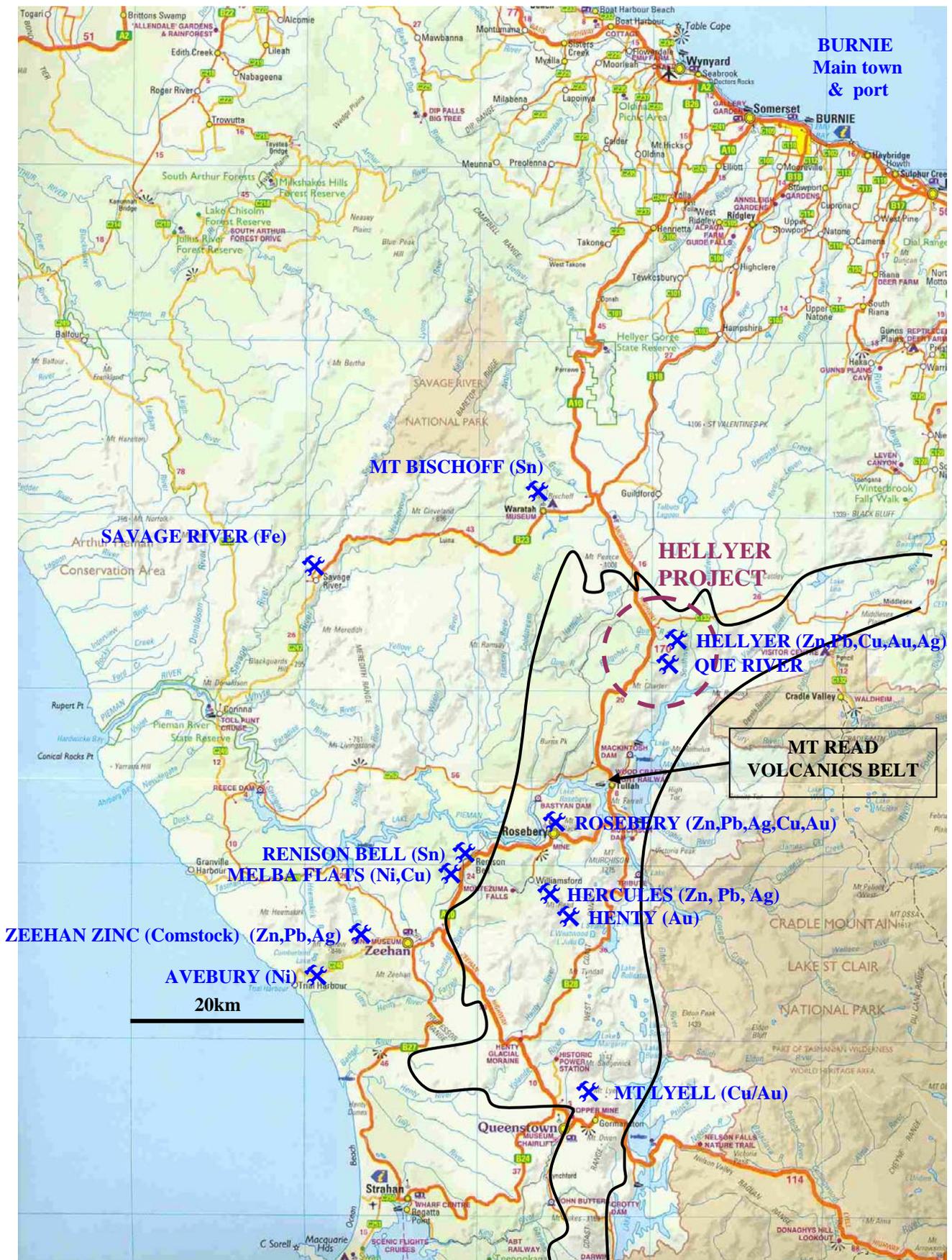


Figure 1: Location map showing the boundaries of the Mt Read Volcanics Belt in northwestern Tasmania. Also shown are the locations of known base and precious metals deposits and the Hellyer and Que River tenements area (circled by dotted line).

---

## **Project Background**

### **Introduction**

Intec Hellyer Metals Pty Ltd (IHM), a wholly-owned subsidiary of Intec Ltd (Intec), a listed company on the Australian Stock Exchange (ASX code: INL), controls 3 granted Mining Leases, 1 granted Exploration Licence, 1 granted Retention Licence and 1 Exploration Licence Application, covering an area of approximately 68km<sup>2</sup>. These form part of the Hellyer Metals Project (the Hellyer Project) that IHM acquired from the receivers for Western Metals Ltd, on 30 January 2004.

The Hellyer Project lies 75km south of Burnie, by major sealed road, and 340km north east of Hobart, by road. A railway line also connects Hellyer to the port at Burnie, where major services are available, including daily flights to Melbourne and Sydney. The Hellyer Project lies within open to thick forest which is Crown Land and logged periodically.

The Hellyer Project area consists of a mill and flotation circuit capable of treating 1.5 Mtpa of zinc-lead-silver-gold sulphide ore. Intec is currently assessing the most efficient manner of recovering metals from 11Mt of previous fine ground tailings using its proprietary technology.

### **Tenements**

The Hellyer Project is located within three granted mining leases, two of which contain the previous operations at Hellyer and Que River (20km<sup>2</sup> combined), which were granted under a special Tasmanian Government Act, with an expiry date in 2009. A third small mining lease (0.2 km<sup>2</sup>) is solely to provide access to Que River from the highway. One exploration license (12 km<sup>2</sup>) covers an area of limestone, a resource potentially for use in the Intec processing plant. A Retention Licence (4km<sup>2</sup>), originally part of a larger exploration licence, part of the Mt Charter prospect. An Exploration Licence (32 km<sup>2</sup>) has been applied for to cover an area north, east and west of Hellyer, which contains exploration prospects.

Table 1: IHM-controlled tenements.

<b>TENEMENT</b>	<b>AREA</b>	<b>EXPIRY DATE</b>
Hellyer CML 103M/1987	1695 ha	2/1/2009
Hellyer ML 68M/1984	300 ha	3/1/2009
Hellyer ML 10W/1980*	22 ha	6/1/2002 Renewal pending
Mt Charter RL 11/1997 <sup>#</sup>	4 km <sup>2</sup>	6/5/2005
Mt Cripps EL 17/1999	12 km <sup>2</sup>	30/3/2006
Bulgobac River ERA 617	32 km <sup>2</sup>	(Under Application)

Footnote:

# In Tasmania, a Retention Licence can be applied for & held if a resource has been defined which is currently uneconomic. Expenditure needs to be reported but has no minimum in the case of RL 11/97.

\* The extension to ML10W/80 has been delayed as the Department of Environment had been reviewing its renewal last year, given the situation of the previous owners, Western Metals. There was a recent recommendation by Mineral Resources Tasmania (MRT) to extend this to 01/2009, to be the same as the other leases. This ML is for access to Que River from the highway, so its importance is limited.



- The Upper or Hellyer Basalt (B) consisting of massive to pillowed amygdaloidal basalt lava and volcanoclastic.
- The Mixed Sequence (Y) host to the Que River, Hellyer and Mt Charter systems is comprised of epiclastics, dacitic lavas and breccias.
- The Feldspar Phyric Andesite (Afp), a porphyritic andesite lava, which in turn is underlain by the Lower Basalt (LB), a sequence of basaltic pillow lavas and volcanoclastics, form the immediate footwall at Que River and Hellyer.  
(Letter codes refer to maps in Figures 19 & 23)

Overlying the QHV is the Que River Shale, which is in turn overlain by felsic volcanoclastics, greywacke and shale of the Southwell subgroup. The Southwell subgroup is overlain by the Mt Cripps subgroup (a correlate of the Tyndall beds at the Henty mine) which is a sequence of volcanoclastics, siltstones and conglomerates only outcropping along the eastern boundary of the tenements

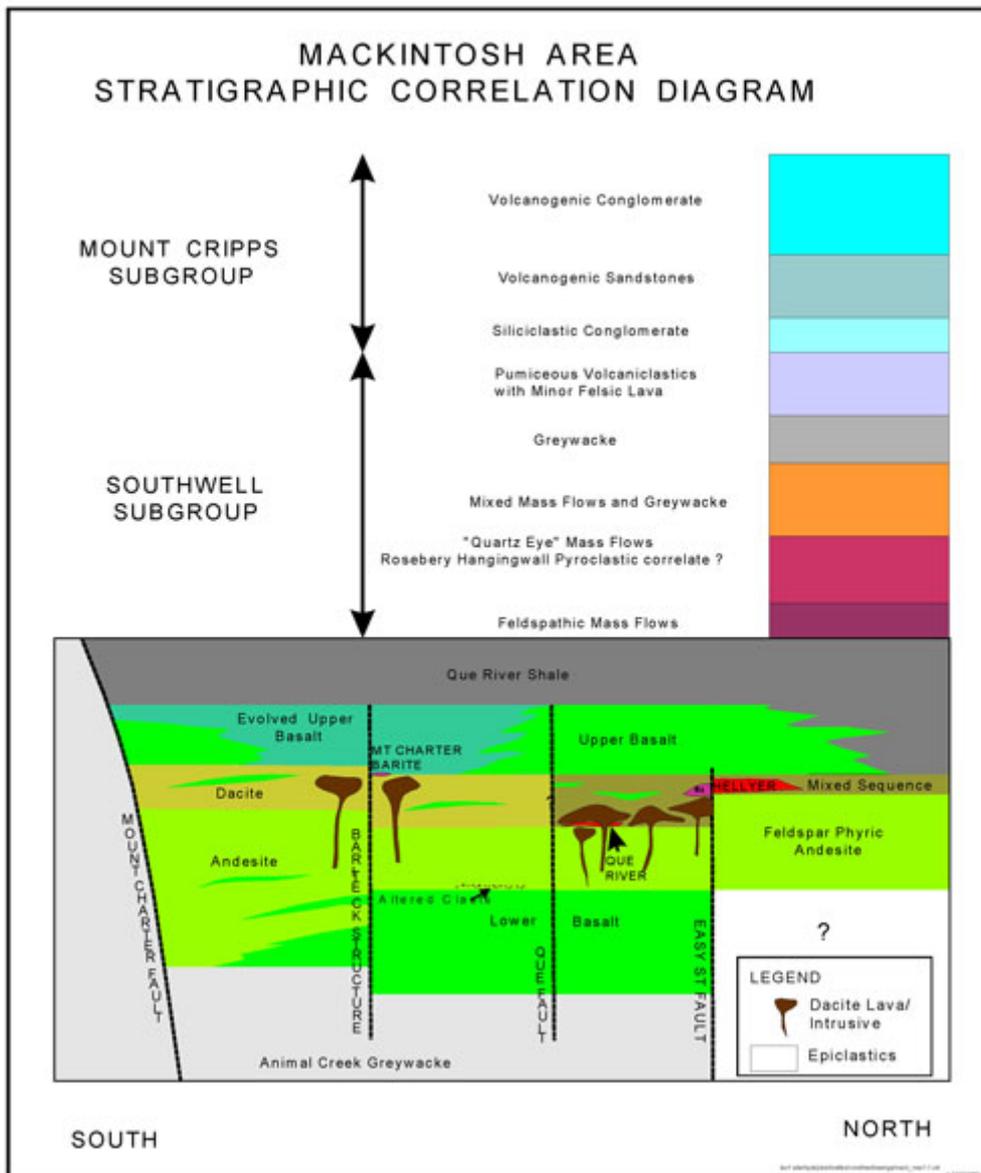


Figure 3: Stratigraphy in the Hellyer area

---

## ***Local Hellyer Geology***

The Hellyer orebody is a shallowly plunging polymetallic VHMS deposit, with a “textbook” Kuroko-type form, which lies 50-300m below the current surface. Seafloor exhalative massive sulphide mineralisation developed in a narrow 40m thick sequence, 800m long and 200m wide, above a stringer vein system and vertical footwall alteration zone which follows the main NNE trending feeder structure.

A Glassy Silica Pyrite precious metal rich zone up to 5m thick capped the Hellyer orebody, underlain by crystalline or massive barite, up to 15m thick, which is usually low grade. Beneath this are the base metal sulphides around a barren core of massive pyrite.

Footwall alteration is present beneath and extends north and south of the orebody for several kilometres. A core of silica+chlorite+sericite is associated with basemetal sulphide stringer veins and is interpreted to represent the main feeder. Surrounding the interpreted feeder, alteration is zoned outward from chlorite+carbonate to chlorite+sericite to sericite+silica.

A hangingwall alteration ‘plume’ of pervasive and fracture controlled green fuchsite (a green phengite) and calcite is developed over the orebody and extends for some distance vertically and horizontally in the Hellyer Basalt, at least from the orebody to current day surface 200m above.

The Que River mineralisation, although similar to Hellyer, has been deformed and dislocated by tight folding and later faulting. The mineralisation occurs as separate lenses within a much larger halo of alteration. Base metal grades at Que River are similar to Hellyer, but the deposit was only 20% of the tonnage.



Figure 4: Sphalerite rich (Zn-rich) massive sulphides in drillcore within the main orebody at Hellyer.

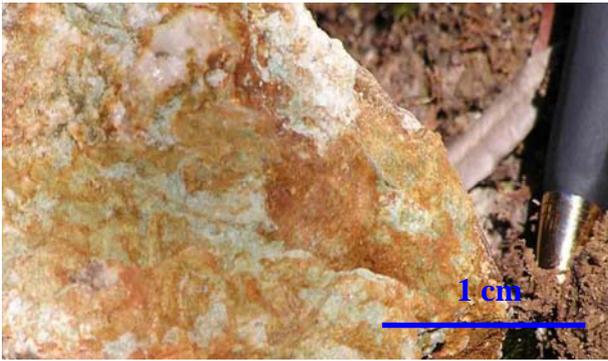
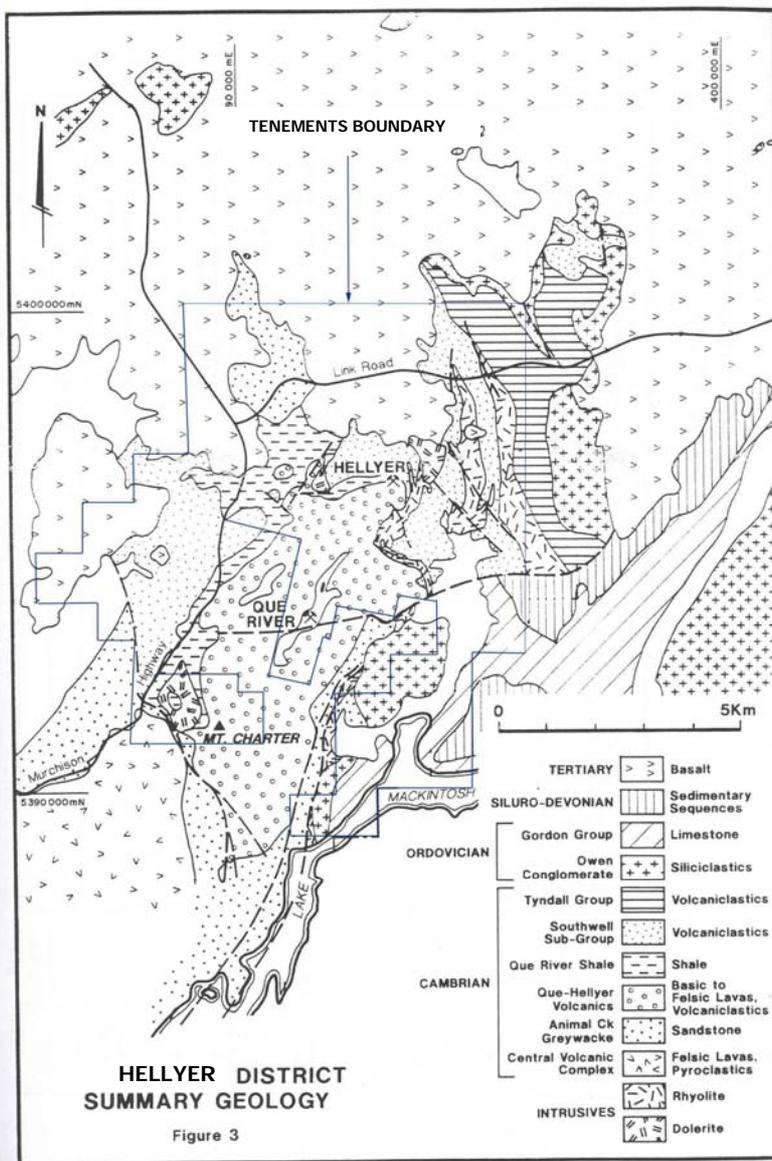


Figure 5: Example of footwall alteration (green fuchsite) in main feeder zone above the Hellyer orebody in outcrop.



Figure 6: Example of barite (white angular crystals) along main feeder zone above the Hellyer orebody in outcrop.



Source: Aberfoyle (Wallace, 1992)

Figure 7: Regional Geology

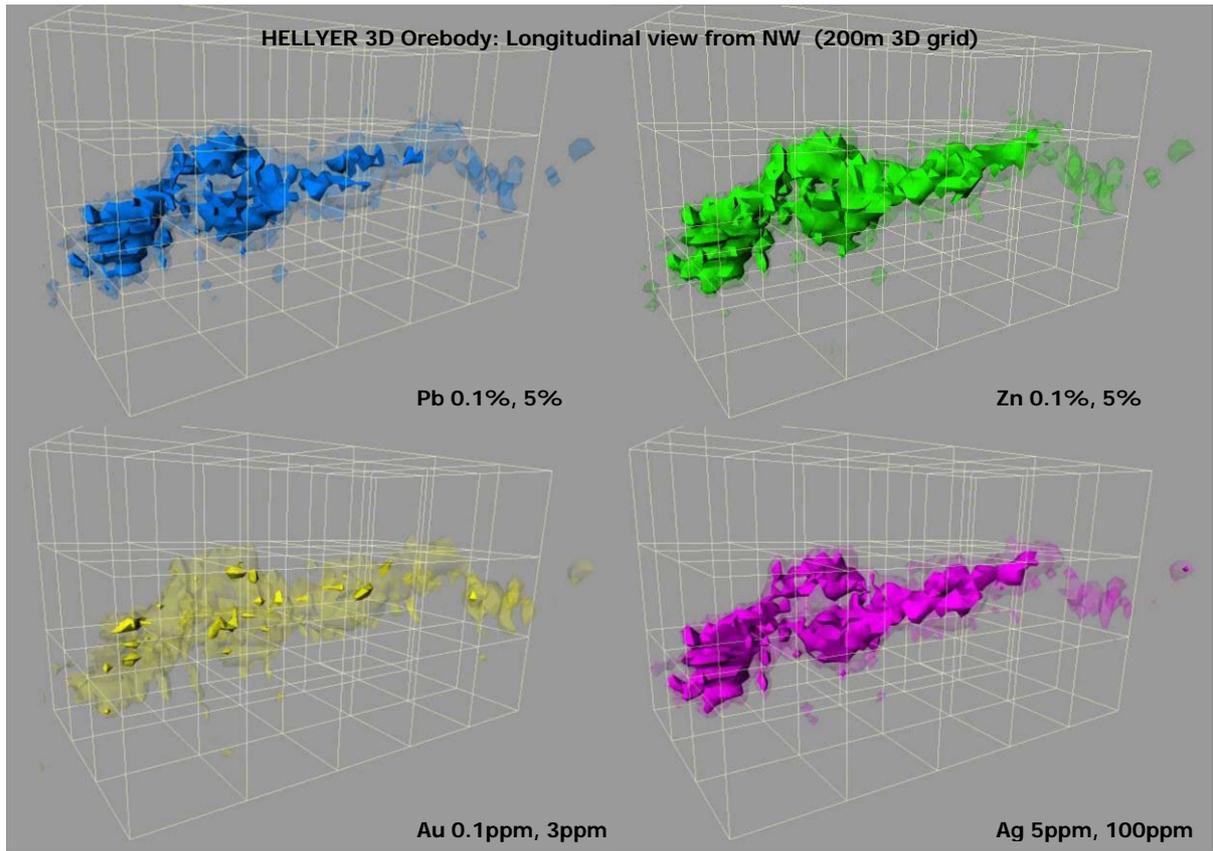


Figure 8: Three dimensional image of the Hellyer orebody, in Lead (Pb), Zinc (Zn), Silver (Ag) and Gold (Au) values, looking from the northwest towards the mill and portal.

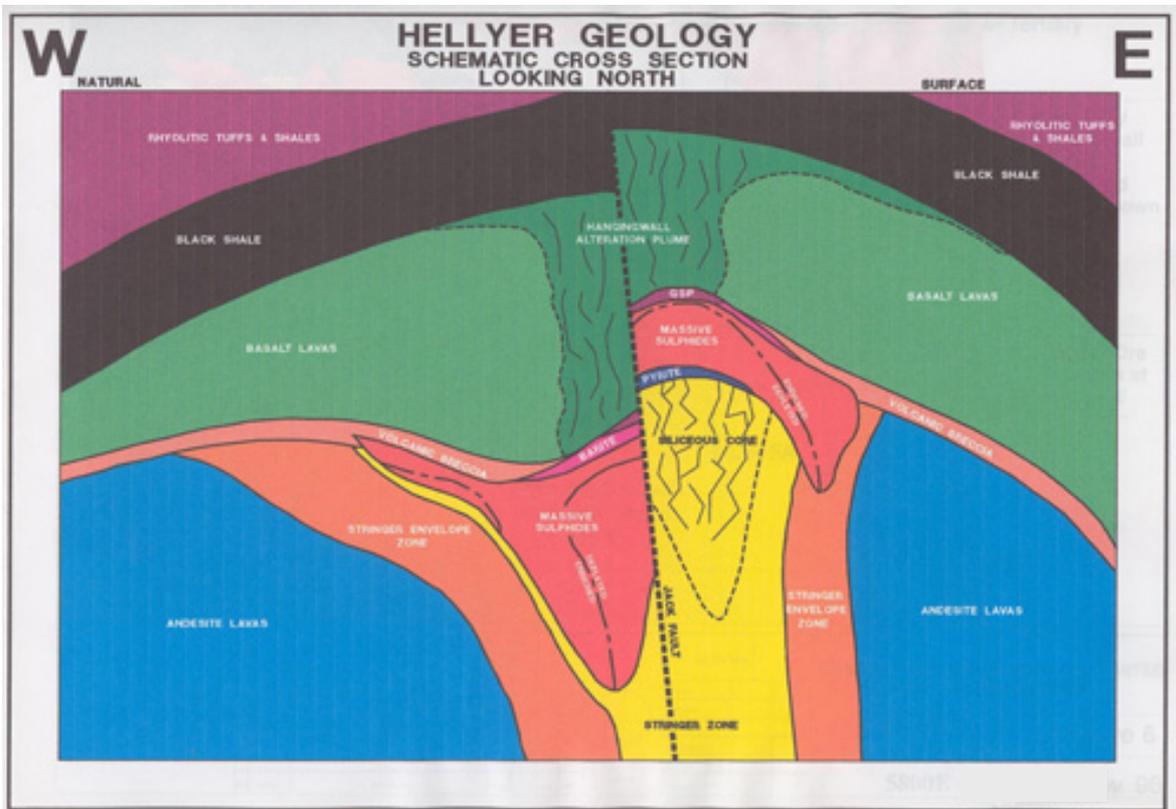


Figure 9: Schematic cross-section of the Hellyer deposit

---

## Previous Exploration & Mining

The earliest known exploration in the Hellyer area was prospecting carried out around 1920 leading to the discovery of alluvial gold and boulders containing zinc and lead sulphides in a creek draining the area of Que River S lens.

Modern exploration of the Que Hellyer Volcanics (QHV) was carried out almost exclusively by Aberfoyle Resources Ltd (Aberfoyle). Only deep QHV beneath Southwell Subgroup cover, west of the Murchison Highway, have been explored by other companies (CSR, Placer, BHP, Pasminco).

Aberfoyle's involvement began in 1970 with the granting of EL 2/70 and in 1971 the prospectivity of "acid volcanic belts" in the west of the exploration licence was recognised. At this time a regional mapping and stream sediment sampling programme covering west of the Mackintosh River was carried out. In early 1972 a combined airborne electromagnetic (EM) and magnetic survey was flown and one of the six anomalies recommended for follow up was coincident with anomalous stream sediment geochemistry. A follow up ground EM and soil sampling survey in 1973 discovered the outcropping S Lens mineralisation at Que River. The first diamond drill hole (QR1) in April 1974 intersected 11m of massive sulphide mineralisation and was followed by 25,000m of ore resource delineation drilling, which defined the main PQ lens and the P North, QR32 and S lenses. The Que River reserve was defined as containing 3.3Mt @ 13.6% Zn, 7.4% Pb, 0.7% Cu, 3.3 g/t Au and 195 g/t Ag.

The Que River lenses were mined mainly underground, using a shaft, with small opencuts, from February 1981 until 1990, with 2.46Mt of material trucked to and processed at Rosebery. The S lens was the final orebody mined, with its relatively lower grade Pb/Zn material blended with and processed at Hellyer.

Following the discovery at Que River, exploration was heavily focused on testing along strike from the known mineralisation. This led to step out diamond drill testing, on approximately 100m centres, for about 1.5km north and 1km south of the orebody. These holes were relatively shallow (< 500m) and resulted in definition of the linear (footwall) alteration zone which hosts the Que River orebodies and extends north to eventually underlie the Hellyer orebody.

The period from the mid 1970's to the discovery of Hellyer in 1983 was one in which the main surface geological, geochemical and geophysical programmes were carried out over the QHV. The prospective stratigraphy was mapped at 1:2 500 scale and covered with -80# C-horizon soil sampling on 50 or 100m spaced lines.

Geophysical programmes during this period were heavily influenced by the fact that surface EM testing at Que River failed to detect the main PQ lens, which came close to surface at the southern end of the orebody. This ultimately would be shown to be due to lack of electrical connectivity owing to the disrupted nature of the southern end of the orebody. At the time, this feature was taken to indicate that surface EM was not the best geophysical technique for application to the surrounding volcanics.

Induced Polarisation (IP) however did provide a strong anomalous response at Que River and IP was chosen as a drill targeting tool and widely applied throughout the QHV. However, IP was responding to the strongly pyritic footwall alteration zone enclosing the Que River orebodies rather than the ore itself. During this period, many drill holes were targeted at coincident soil geochemical and IP anomalies, only to intersect geochemically anomalous alteration.

Failure of IP to discover new deposits led to trialling of a new fixed loop time domain EM system - UTEM, at Que River mine in 1983. This time UTEM detected PQ Lens and it was therefore decided to completely cover all prospective volcanics with this system. Only one conductor as strong as Que River was detected; on the most northern line of the survey. The survey was extended to the north and indicated a deep moderately conductive body over a strike length of

---

400m, open to the north, where it plunged under conductive Que River Shale. The UTEM anomaly was coincident with weakly anomalous soil geochemistry, barite veining and fuchsite alteration.

In August 1983 the first hole intersected 24m of massive sulphide in the Hellyer orebody. By November 1984 approximately 22,000m of delineation drilling had been completed and in June 1986 a 1.3km adit was driven to intersect the orebody. The Hellyer reserve was defined as 16.9Mt @ 13.8% Zn, 7.2% Pb, 0.4% Cu, 167 g/t Ag and 2.5 g/t Au. Production commenced in December 1986, using underground methods, with production peaking at around 1.3mt pa until the orebody was mined out in June 2000. Material was processed at the newly constructed 1.3Mtpa Hellyer mill, purpose built to accommodate the fine grinding necessary to liberate the sulphides via flotation.

Knowledge gained from the Hellyer drillout showed that a clear relationship exists between the orebody and the stratigraphic contact between footwall andesite and hangingwall basalt. This horizon, the Mixed Sequence, became a key target throughout the QHV. Comparison with Que River indicated the similar stratigraphic position of the Que River orebodies within a thicker Mixed Sequence.

From 1984 to around 1992 exploration focussed on drill testing three styles of target:

1. continued drill testing of surface EM anomalies
2. testing of targets at the Hellyer ore position at various prospective structural locations and in some cases a slightly deeper Que River ore position and
3. testing of the Hellyer ore position, on top of the Hellyer footwall alteration zone, down plunge, north of the Hellyer orebody.

Generally, targets of the first and second categories intersected barren ore positions with no significant alteration. All holes were surveyed with downhole EM. North of Hellyer, a barren ore position underlain by strong footwall alteration and overlain by thick strongly fuchsite-carbonate altered basalt was followed north to 11400N in step-outs of up to 200m.

By 1992 it became clear that surface EM had effectively sterilised the QHV down to 200m for a Que River sized target and 400m for a Hellyer sized target. Exceptions to this were unusually oriented targets (eg steeply plunging) that could still remain undetected by the largely out-of-loop surveys that had been conducted. Any future discovery would be deep and a new method of target generation was required.

In 1992 Etheridge and Henley (now SRK) were approached and a regional structural model was devised to generate conceptual, deep, structural / stratigraphic targets. The aim was to integrate geological, geophysical and geochemical data to develop a three-dimensional structural model of the entire QHV basin and to delineate the synvolcanic fault network within the basin.

The structural study proposed a syndepositional fault network of linked NE trending normal faults and NW trending transfer faults. In addition, important NNE trending structures such as the Que - Hellyer structure (reflected by the Que River to Hellyer footwall alteration zone) were recognised and seen as reactivated basement faults, which had undergone oblique extension.

Localised dilation and subsidence, at or near structural intersections, were thought to allow focussed hydrothermal fluid flow, which could lead to orebody formation. Prospective stratigraphy, adjacent to these structures, below surface EM range, was seen as a valid deep drill target. A total of 26 target areas were defined and these were prioritised for drilling using geophysical, alteration, geochemistry and stratigraphic indicators.

---

During the period 1992 to 1994 supporting data was gathered, such as close spaced aeromagnetics and additional gravity data. The structural / stratigraphic targets began to be tested from 1993 as the structural model evolved and targets became evident.

At this time reinterpretation of Mount Read Volcanics raised the possibility that the Rosebery orebody may be younger than Hellyer (rather than older as previously thought) and hosted by correlates of the Southwell Subgroup. Prospectivity of felsic volcanic sequences north of Hellyer was increased and these rocks were surveyed with surface EM. Only one anomaly worthy of follow up was located and drill tested. It was found to be due to Tertiary sediment.

The main period of drill testing from 1995 to 1996 identified structural / stratigraphic targets, with nine of the highest ranked areas being tested by at least one hole. Some targets provided sufficient encouragement for further drilling which was also carried out during this period. Of note was the "rediscovery" of the Hellyer alteration system down-plunge from the orebody on section 12000N, where from earlier drilling it was thought to have died out. Although deep, the system remains open to the north.

Partial digest or Mobile Metal Ion (MMI) geochemistry was used in the Hellyer area in 1996. In-house research showed that partial digest soil geochemistry detected an anomalous response 300m above the Hellyer orebody. Given this potential it was decided to survey approximately 10km along strike north from Hellyer mine to the exploration licence boundary. The aim of the survey was to detect a body of massive sulphide buried beneath barren cover rocks. The target body could be hosted by deep QHV or overlying felsic sequences.

The survey only detected one coherent anomaly, which coincided with the highly ranked Mayday structural target, 4km north of Hellyer which was drilltested in 1997 with a 1500m vertical diamond hole but it failed to intersect the QHV or a source for the anomalous soil geochemistry.

Western Metals took ownership in late 1998 and drilled four holes prior to the completion of mining at Hellyer. The Tasmanian Government (MRT), together with AMIRA completed a regional seismic traverse in 1996, with data available in 1998, across the Hellyer area to improve regional understanding. This was complemented in 2002-03 when the MRT flew close spaced airborne magnetics, radiometrics and EM across the entire Mt Read Volcanics belt.

During the processing of Hellyer ore, considerable volumes of metal were not recouped and reported to the tailings. Western Metals assessed various pyro- and hydro-metallurgical processes for recouping these metals. IHM is currently conducting a pre-feasibility study using Intec's proprietary hydrometallurgical technology to extract the Zn, Pb, Cu, Ag & Au in the tailings.

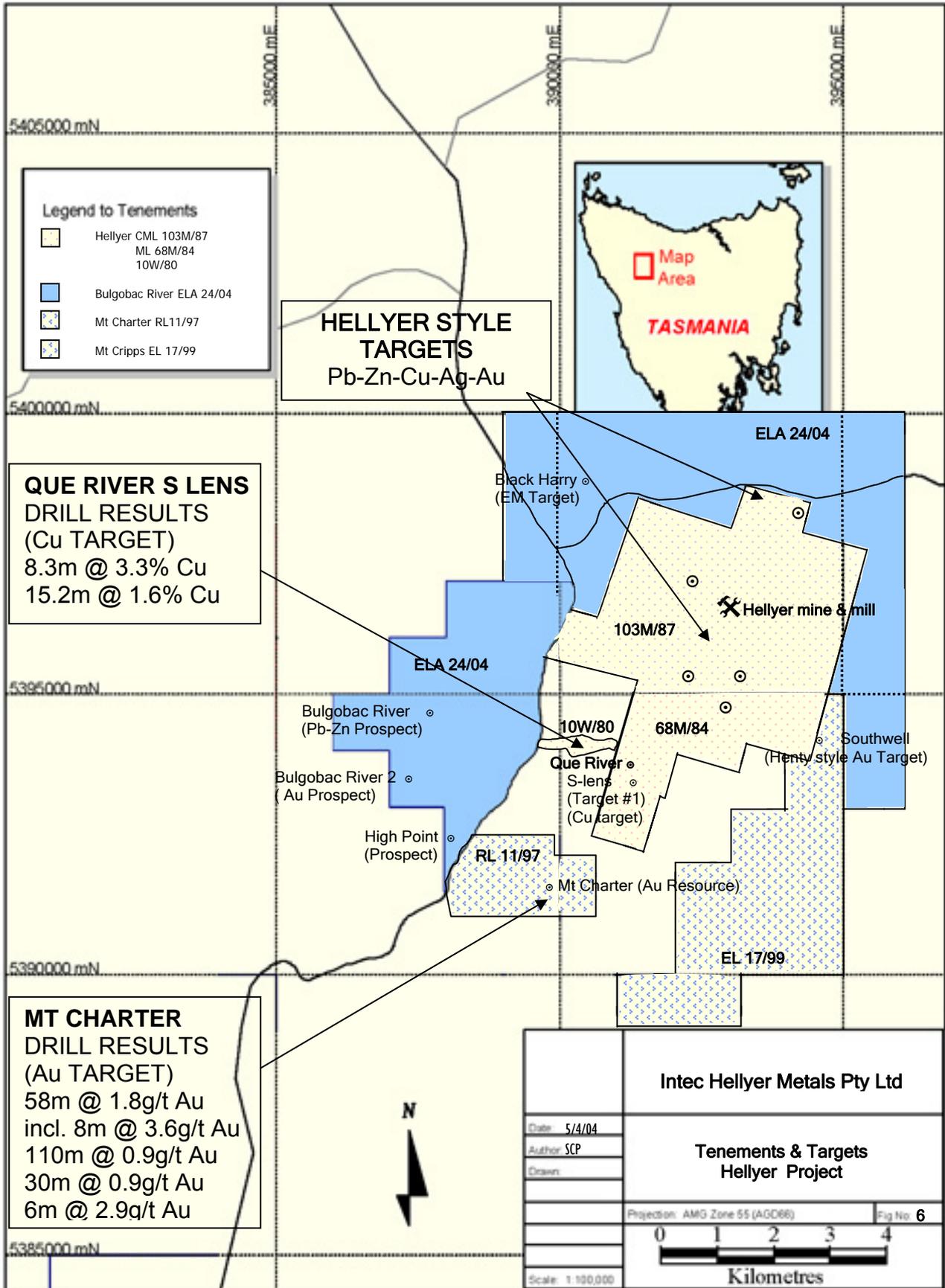


Figure 10: Location of targets on Hellyer and Que River tenements map



Figure 11: Massive sulphide ore from the Que River 'S-lens', comprised dominantly of pyrite with lesser chalcopyrite.

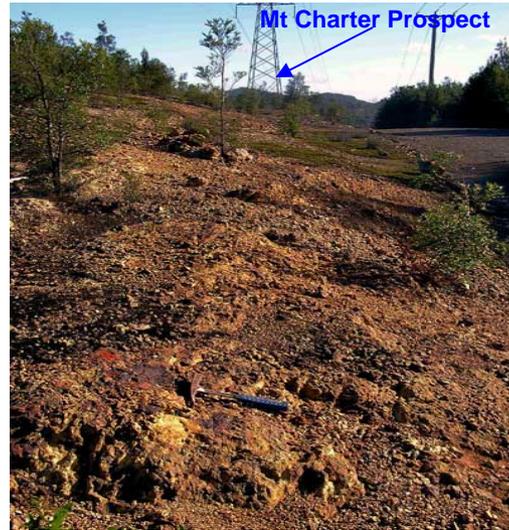


Figure 12: View of Mt Charter in the distance (6km) looking S from the southern end of Hellyer. Note the Hellyer footwall alteration in foreground, which outcrops in places near the powerline towards Que River and Mt Charter.

## ***Exploration Targets***

Highly prospective target areas for polymetallic Volcanic Hosted Massive Sulphide (VHMS) and Au-rich vein style deposits have been identified. These targets have been identified through a review of available exploration data, and discussions with previous Aberfoyle senior geologists.

Although subject to considerable exploration over an extended period it is considered that potential remains in the offered tenements for a number of reasons:

- Exploration was conducted within the context of a relatively fixed geological model with a strong emphasis on Zn-Pb-Ag systems
- Most recent exploration required coincident multiple anomalies from all key exploration techniques to have a drillhole programme approved instead of trialling new approaches.
- Depth penetration of EM was only 200-400m, with most other techniques unable to penetrate any deeper, except for gravity, which was largely unused as a targeting method, and magnetics. Ground EM cannot be used effectively adjacent to the powerlines which is often close to the main mineralisation and alteration.

Recent regional geophysical data (MRT heli-borne magnetics / radiometrics and EM, 2002-3) has provided a regional context not previously available and has been reviewed together with previous gravity data to identify key structures and targets. Further, new extensions to the Henty gold mine have been discovered since the year 2000 which have a less deformed character than the earlier known mineralisation, aiding the understanding of their genesis as deformed VHMS deposits with a structural focus, rather than a simple shear-hosted gold deposit. Regionally, the Hellyer area could be interpreted as having a similar setting but the Henty style deposit remains to be located.

Following an initial data compilation and validation stage, some of these targets are drill-ready whereas others require further exploration before drilling. The targets fall into three categories:

- Advanced prospects of Cu-rich VHMS mineralisation, and Au-rich barite mineralisation with drill-ready targets
- Drill-ready targets near Hellyer for VHMS Hellyer-Que-style mineralisation
- Conceptual targets requiring surface exploration prior to drilling, for Henty-style gold mineralisation and VHMS mineralization

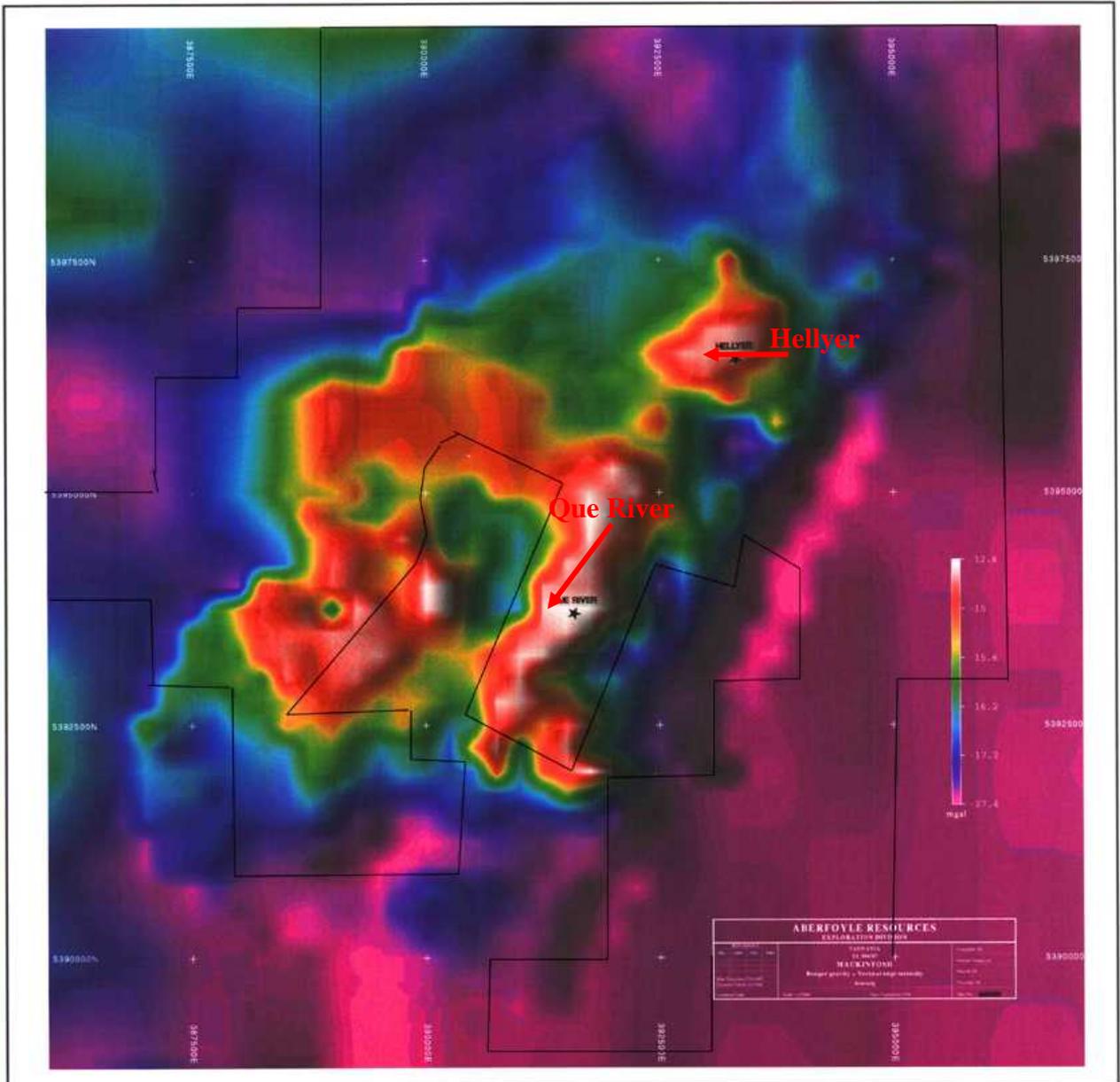


Figure 13: Gravity image (Bouger) over Hellyer and Que River with the location of the IHM tenement boundary. Colour intensity in mgals (white & red = 2 mgal  $\Delta$  high over green; 5 mgal  $\Delta$  high over blue). Gravity highs are interpreted to indicate pyrite-mineralised volcanics associated with the main Hellyer-Que River mineralised system. Note major NNE trending gravity high associated with a major altered and mineralised feeder zone, interpreted to be associated with the Hellyer-Que River mineralisation. (Source: Aberfoyle 1994 Bouger gravity + vertical edge intensity plot.)

---

## Advanced Prospects with Drill-Ready Targets

### 1. Que River “S Lens” Copper Prospect

A massive sulphide (pyrite-chalcopyrite) and dense stringer mineralised body, the **Que River S lens** outcrops on a hill at the southern end of Que River. A significant amount of the Cu-rich portion of the S lens exists after the Pb-Zn rich portion was mined out from the original 1976 Abminco indicated reserve of 860 500t @ 1.1%Cu, 1.8%Pb, 3.7%Zn & 40g/t Ag (Wallace, 1976; see Appendix). The “S lens” lies 100m east of the other massive sulphide lenses at Que River (PNorth, PQ, QR32), which are all sub vertical lenses which occur in a tight syncline, disrupted by faulting, within a large alteration halo. The lenses were mined underground, with minor open pits, primarily for the Zn-Pb-Ag-Au content. The ore was trucked to the Rosebery plant for processing.

The “S lens” has strong metal zonation over 200m strike length from copper-rich pyrite-chalcopyrite (>1% Cu) in the southern section of the ‘S lens’ to relatively rich Zn-Pb grades (>5% Zn+ Pb) in the northern section. Due to the low levels of zinc in the southern section, it was left un-mined. The copper resource extends for approximately 150m along strike and 130m down dip in a subvertical body with an average thickness of 6 m, varying from 2 – 10m thick.

Verbal comments suggest that approximately 180 000t of Cu rich material remains. The original 1976 geological reserve of the Cu rich block was 203 000t, which graded 2.3% Cu, 38g/t Ag, 0.07% Pb, 0.13% Zn (see Appendix).

The original indicated reserve was only drilled @ 50-100m spacings down to 250-300m depth. Eight drillholes and a wedge exist below 300m depth over a strike of 750m. A poorly tested EM conductor beneath the S lens suggests potential for significant mineralisation below 300m, of say 250-300m downdip.

Best results in the remaining S lens and below are:

- 8.3m (5.6m horiz width) @ 3.3% Cu, 28g/t Ag in QR04 in the Que River S Lens
- 15.2m (9.0m horiz width) @ 1.6% Cu, 56g/t Ag in QR92 in the Que River S Lens
- 20m @ 0.6% Cu in QR1169, beneath the Que River ‘S lens’;

An unresolved N-S trending EM conductor, lies 300-600m vertically beneath the S lens within strong footwall alteration (Stringer zone). Two holes and a wedge tested this feature but did not conclusively define an EM source, based on the mineralisation and grades intersected, although “stringer” chalcopyrite-pyrite mineralisation was encountered 500m below the massive sulphide in drillholes QR1169, 1169A & QR1216. Downhole EM logging identified a conductor near to drillhole QR1169 and 1060, but did not test the upper portion of drillholes QR1169, 1169A & QR1216 and may have missed any mineralisation in the footwall basalt. An airborne EM conductor can be seen in the projected footwall basalt near the collar of QR1169 & QR1216. Aberfoyle had planned to follow up with further drilling, as all downhole EM anomalies had been proved to be due to massive sulphides, but management changed its exploration focus.

The airborne EM data also indicates a southern extension of the EM response over the zinc rich PQ lens, extending 600m to the south next to an interpreted major north-south striking fault. This fault is interpreted to link to the Henty Fault and defines the western limit of the Que River conductors and has a coincident gravity feature. Strong alteration has been tested further west by a fence of holes (QR27-29), but the conductor and gravity feature are untested.

This target has significant potential to locate further lenses of massive sulphide. A simple programme of 4 – 6 drillholes with downhole EM logging should be able to test the target.



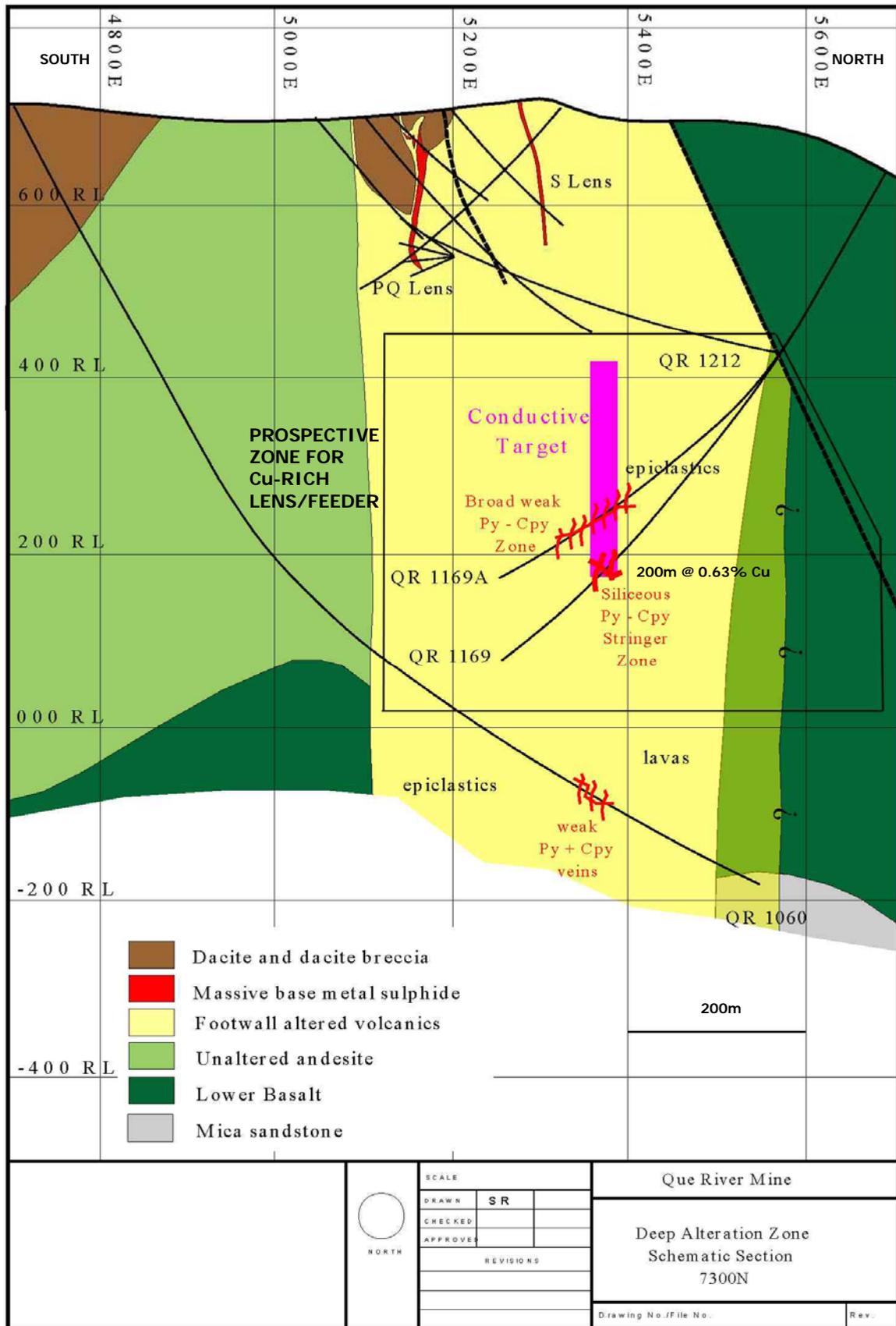


Figure 15: Cross-section of 'S' and 'P' lens along local gridline 7300N, with EM conductor, previous drillholes and the prospective zone for a Cu-rich lens.

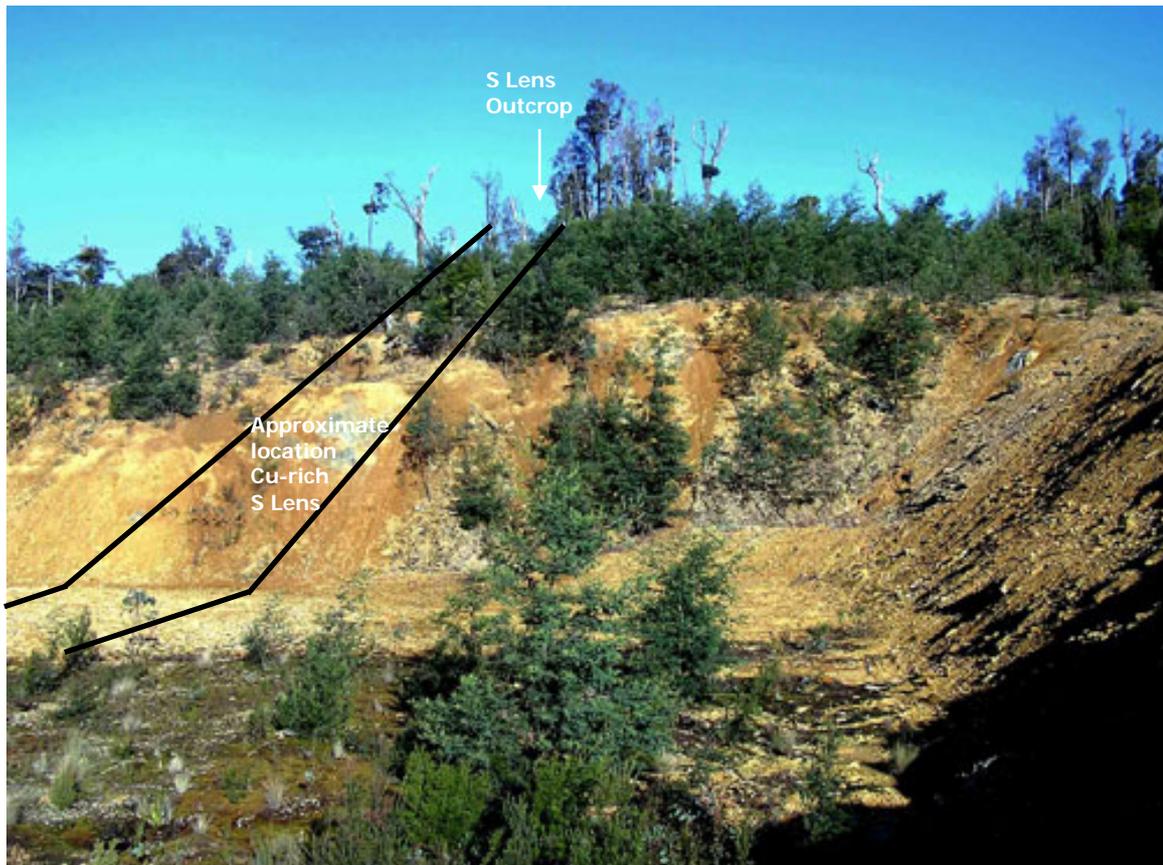


Figure 16: Photo of 'S-lens' looking south east, with the approximate location of the outcropping mineralisation on the hill and in the cut face. Area is undergoing rehabilitation.

## 2. Mt Charter Gold Prospect

The Mt Charter prospect is an outcropping Au-barite disseminated & stockwork vein system hosted within altered Mixed Sequence rocks, as at Hellyer and Que River, approximately 7 km from the Hellyer Mill Complex.

The primary host for alteration and Au mineralisation at Mt Charter is dacitic volcanics, which strike north west and dip moderately south west. Pervasive strong sericite-pyrite-silica alteration is present with late stage fine grained silica alteration and quartz veinlets over an area 1000m long x 100-250m wide. Patchy K-feldspar alteration is also present, similar to a Au-Ag rich zone at the north end of Que River. The mineralisation occurs as a massive barite lens, underlain by footwall altered dacites with stringer veins (pyrite-sphalerite-galena-barite) and disseminated pyrite-barite. The highest grades are associated with the massive barite lens at the southern end of the alteration zone.

The prospect has been relatively sparsely drilled with thirteen holes drilled on irregular 100 to 400m centres over a 1x1km area. An Inferred Mineral Resource of 10Mt @ 1.0 g/t Au & 19g/t Ag with low base metals (0.3% Pb, 0.6% Zn), from surface to 137m, potentially extractable by an open cut, was calculated in 1992 as Pre-resource Mineralisation (Wallace, 1992), and adjusted for the JORC standards in 1998 (McNeill, 1998). This is calculated from drillhole and rockchip data, as an area of 250m x 250m area of rockchip samples consistently assayed over 1g/t Au, to maximum of 3.7 g/t Au. The potential appears to be closed off at depth due to poor results in two deep holes (MAC032-033). However, the mineralised zone remains open to the east, south east and west. An outcropping barite vein returned 3.9 g/t Au in a rockchip 500m SE of the best drillhole MAC026, near MAC036. In addition a poorly tested near surface airborne EM conductor lies to the west of MC8.

---

Previous results from the prospect include:

- 58m @ 1.8 g/t Au, 31 g/t Ag, 1% Zn, 30% Ba (0-58m,MAC026); incl 8m @ 3.6 g/t Au
- 30m @ 0.9 g/t Au, 10g/t Ag, 2.8% Zn, 1.6%Pb(73-103m, MAC026); incl 3m @ 7.1% Zn, 4.8% Pb
- 6m @ 2.3 g/t Au, 12 g/t Ag, 0.19% Cu, 24% Ba (135-141m, MAC023)
- 6m @ 2.9 g/t Au; including 3m @ 4.3 g/t Au (216-222m, MAC023)
- 110m @ 0.9 g/t Au (MC1)

**Previous drilling was focused on base metal potential and diamond core was dominantly sampled by core grinding. Given the vein style of the mineralisation it is considered that excellent potential exists to improve the grade of the prospect by assaying half core.** Some core splits were prepared and assayed, but reviews to date, especially on MAC026, show this only occurred in areas of elevated base metals and not in drillholes MC1-8. This is supported by reports of visible gold in the early holes (MC1-8) within zones which only assayed 0.3g/t Au (Rand,1988). It is also noteworthy that pits and a small adit were worked by prospectors on Mt Charter during the 1930's.

Another target for base metals, called High Point, lies 1500m to the NW at High Point, next to the highway. This prospect, although explored with 7 drillholes by BHP and Pasminco (HP1-4, BHD1,5-6), has been hindered from full testing as it was on a tenement boundary with ownership previously being different either side of the highway. With IHM's new exploration licence application, it will be the first time the prospect can be properly tested as a contiguous target. Previous drilling has been deep, around a partial leach (MMI) Pb-Zn-Ag-As soil geochemistry anomaly but may not have intersected the same favorable horizon which occurs at Mt Charter or Hellyer, except for BHD06. The stratigraphy appears to be steeply dipping westward and disrupted by faulting.

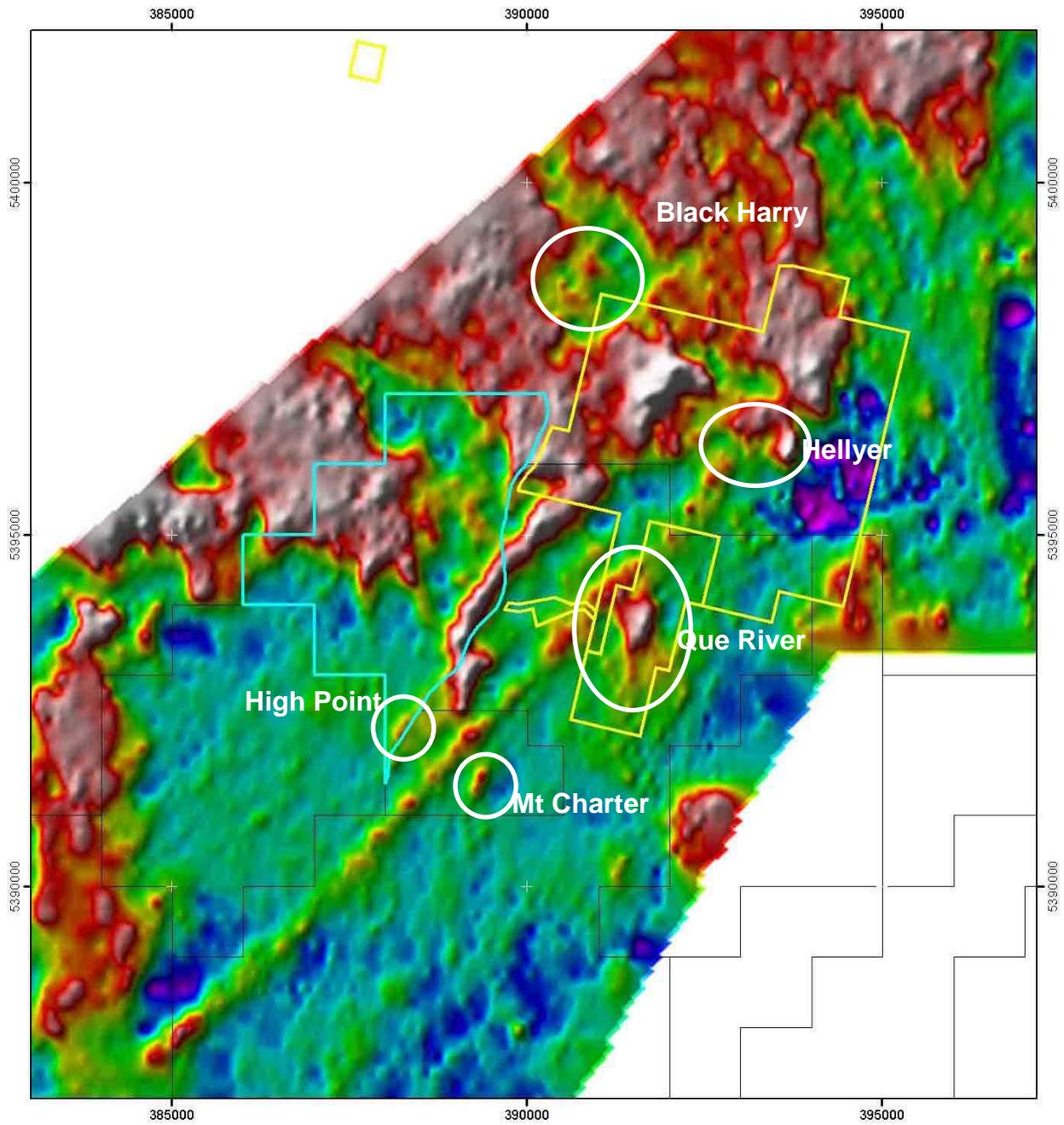


Figure 17: Airborne EM image with Hellyer, Que River, Mt Charter, High Point & Black Harry anomalies. (Source: MRT, Seymour 2004)

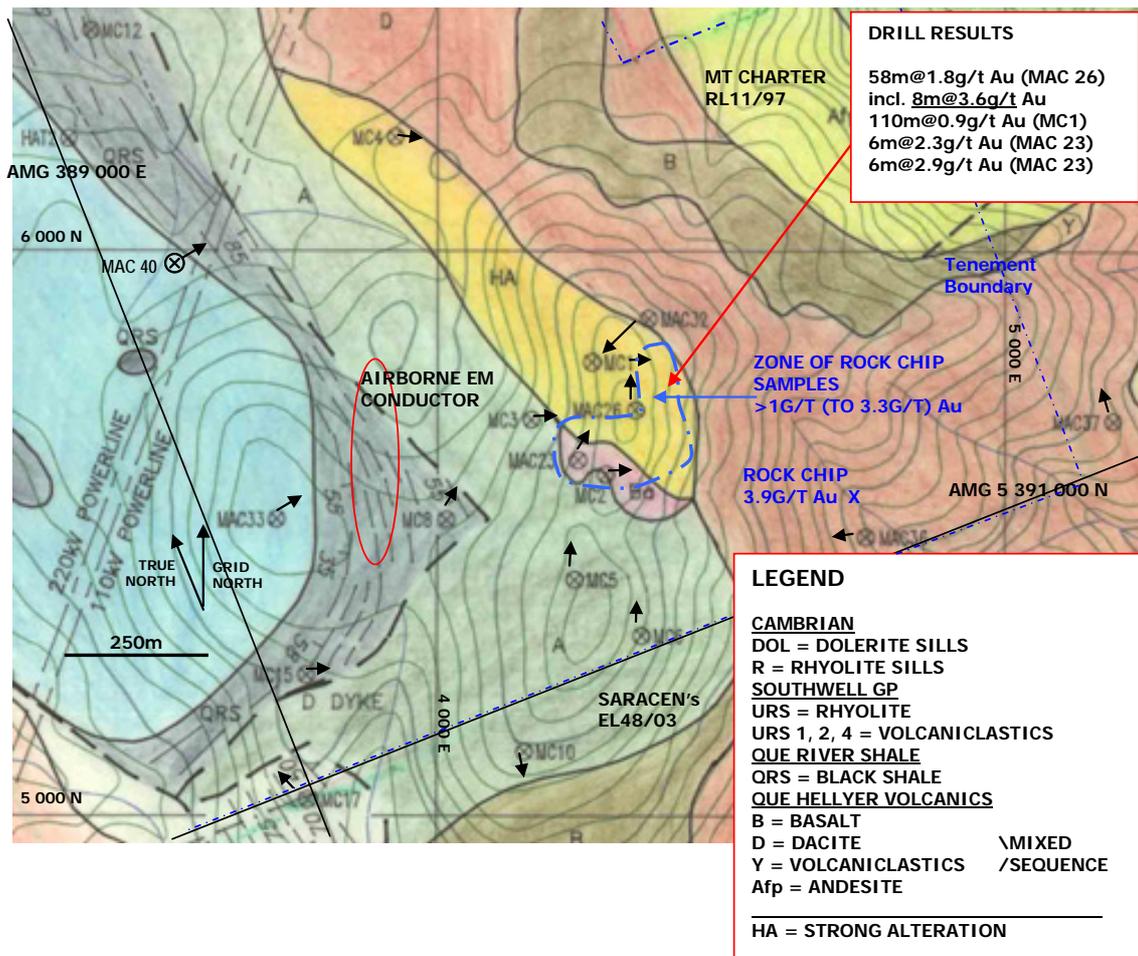


Figure 18: Geology map of the Mt Charter area, with the best drill results and the location of rockchip samples assaying over 1g/t Au.

## Drill-Ready or Near Drill-Ready Targets

### 3. Hellyer-style Targets

Three specific targets are available for drill-testing adjacent to Hellyer with another target worthy of further investigation. The targets are focussed on two features:

- Two Hellyer-parallel NNE feeders, 400m W & 750m SE of Hellyer, for Hellyer-style mineralisation; and
- Regional deep-seated mineralised NW fault zone (Easy St Fault), with Que River style bodies adjacent or along the fault.

A major NNE structure strikes through the centre of Que River & Hellyer, and is the most important localising structure for base metal mineralisation. A similar feature exist 400m W of Hellyer, detected in drilling with indications of mineralisation, and subtly visible in a gradient change in gravity data. Gravity suggests a similar structure 750m SE of Hellyer, but is less well supported. Gravity "highs" underlie all mineralised and altered areas at Hellyer-Que River, but also underlie altered, unmineralised areas.

A major regional NW striking fault is interpreted to be the other key localising feature for mineralising fluids, although may have been under compression during mineralisation, unlike the extensional NNE features. Dilatant zones along or adjacent to this NW fault zone are

---

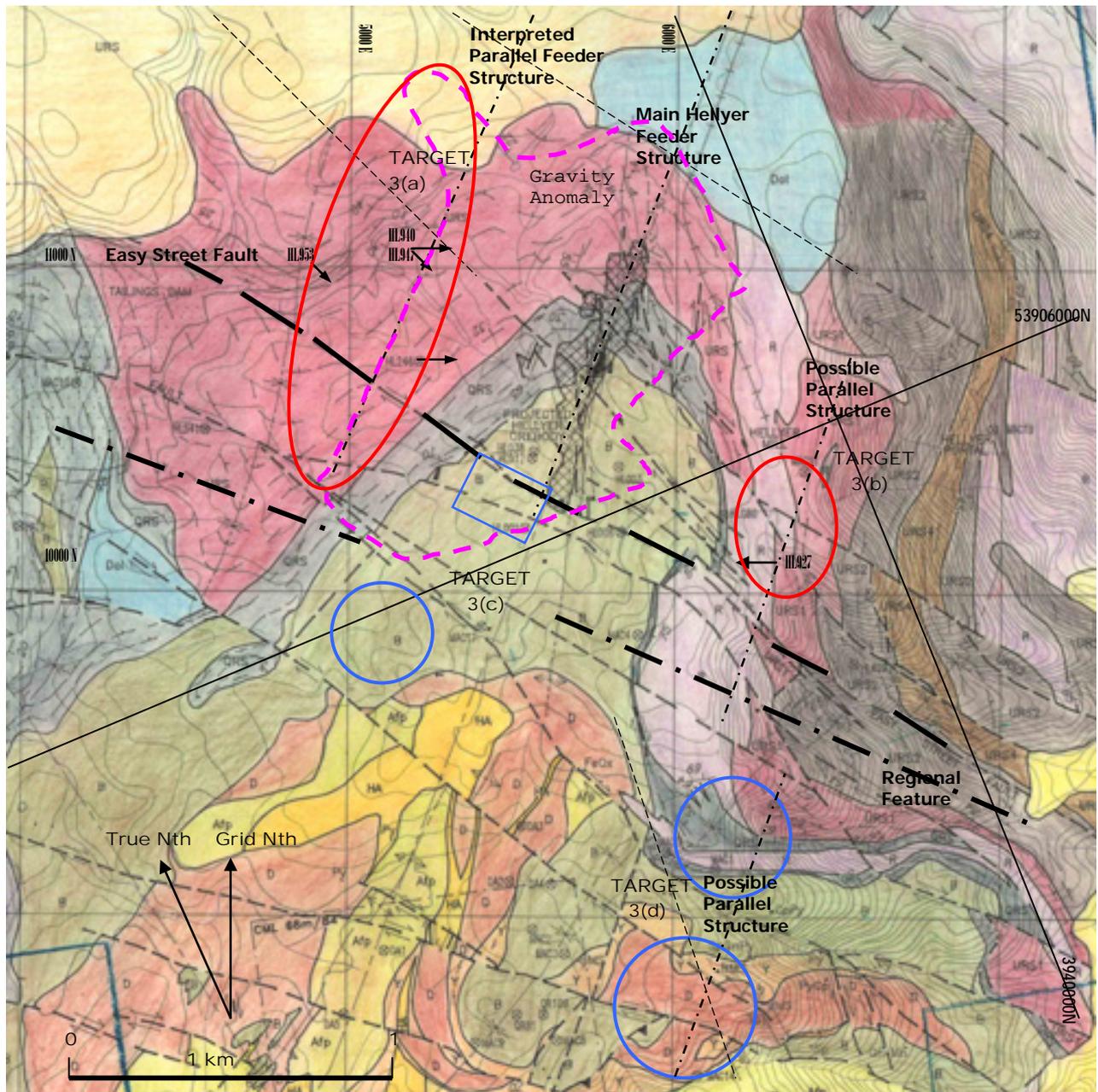
targets for base metal mineralisation not previously fully assessed. This fault zone defines the southern boundary of Hellyer and can be observed in the gravity map and the 'deep-looking' worm diagram which uses magnetic and gravity data.

Previous exploration was focussed on stratigraphically driven Hellyer-Que settings, preferably with an EM response and geochemical (MMI) anomaly. Merged data sets were only used in the last couple of years of Aberfoyle exploration. Downhole EM should detect very large massive sulphide bodies like Hellyer, but may well have missed smaller bodies. Gravity was either not used or not seen as sufficiently discriminative for targets. Integrated regional geophysical data sets (EM, magnetics) recently generated by the MRT, were also not available, so some of the macro-structures were not fully assessed locally.

Specifically, gravity features were not targeted and neither were the barite-base metal mineralised regional NW fault zone (Easy St Fault), detected in drilling, mapping and soil geochemistry. Virtually no drilling was oriented N-S, with most being E-W in orientation. A parallel feeder structure to Hellyer, 400m W of Hellyer, was detected in drillholes HL 940 & 947, is open for testing to the N & S.

Gravity data needs to be reprocessed using 3-D modelling techniques to make the data more discriminating for target definition. CSAMT could be used as a deep penetrating geophysical tool that may be able to locate a silicified feeder (stringer zone) to a massive sulphide.

If a resource is identified in any of the drill targets, it could be cost-effectively extracted from a new development drive connecting with the current underground mine workings, as most targets are within 1000m of the Hellyer orebody.



**LEGEND**  
**CAMBRIAN**  
 DOL = DOLERITE SILLS  
 R = RHYOLITE SILLS  
**SOUTHWELL GP**  
 URS = RHYOLITE  
 URS 1, 2, 4 = VOLCANICLASTICS  
**QUE RIVER SHALE**  
 QRS = BLACK SHALE  
**QUE HELLYER VOLCANICS**  
 B = BASALT  
 D = DACITE  
 Y = VOLCANICLASTICS  
 Afp = ANDESITE  
 HA = STRONG ALTERATION

Figure 19: Geology map around Hellyer indicating target locations and the shape of the gravity anomaly over Hellyer. (Source: Aberfoyle 1994 Geology Map)

---

### **3(a) West of Hellyer**

Previous drilling (4 holes) west of Hellyer is widely spaced.

- i. A subparallel feature to the main Hellyer NNE feeder, 400m west of Hellyer, was intersected in drillhole HL940 & 947 as glassy silica – chert with galena and chalcopyrite in the Mixed Sequence over a footwall alteration system. Glassy silica with sulphides occurs as a precious metal rich cap at Hellyer. Potential exits for further drill testing over 400m strike to the north, west of HL054, and 800m strike to the south, west of HL246.
- ii. A partial leach (MMI) soil anomaly immediately west of HL246 requires testing, drilling both eastward towards Hellyer to cross-cut stratigraphy and southward to cross cut the Easy St Fault.

Another feature in the area which should be considered for drilling is a deep gravity feature north of MAC10 next to the tailings dam as it follows a major NW fault which cross cuts the southern end of the Hellyer orebody. However, previous drilling has shown the Que River Shale to be quite thick in this area lying immediately above footwall rocks.

### **3(b) East of Hellyer**

A ridge of moderate gravity highs lie in a sub parallel NNE striking zone to Hellyer, 750m to the south east, which is interpreted to indicate a subparallel feeder structure to Hellyer. The gravity features are not as strong or as continuous as at Hellyer and Que River, and appear to be cross cut by major N-S and NW-striking faults. A significant gravity high lies south of the Hellyer mill on the above NNE striking trend of gravity highs, immediately adjacent to the Easy St Fault. Only drillholes HL080 and HL922 are in this area, but neither hole has tested this gravity feature. The Mixed Sequence horizon is fairly deep as the stratigraphy dips steeply eastward in this location. The target would be tested by three holes on a ridge SSE of the mill, with two holes being drilled southward and one to the west.

### **3(c) South of Hellyer**

Barite-sulphide mineralisation which is deposited along the Easy St Fault at the south end of the Hellyer orebody has not been closed off by drilling, nor has the possibility of nearby mineralisation along a NNE structure subparallel to the main feeder at Hellyer. Two drillholes near HL001 would be necessary to test the mineralisation.

A discrete gravity feature, lying in the Easy St Fault zone between the Hellyer and Que River systems, has not been fully tested at depth. It lies near drillholes HL001 and MAC17, on the NNE striking trend of alteration from Que River. The gravity data suggests a target considerably deeper than Hellyer at 600-700m depth.

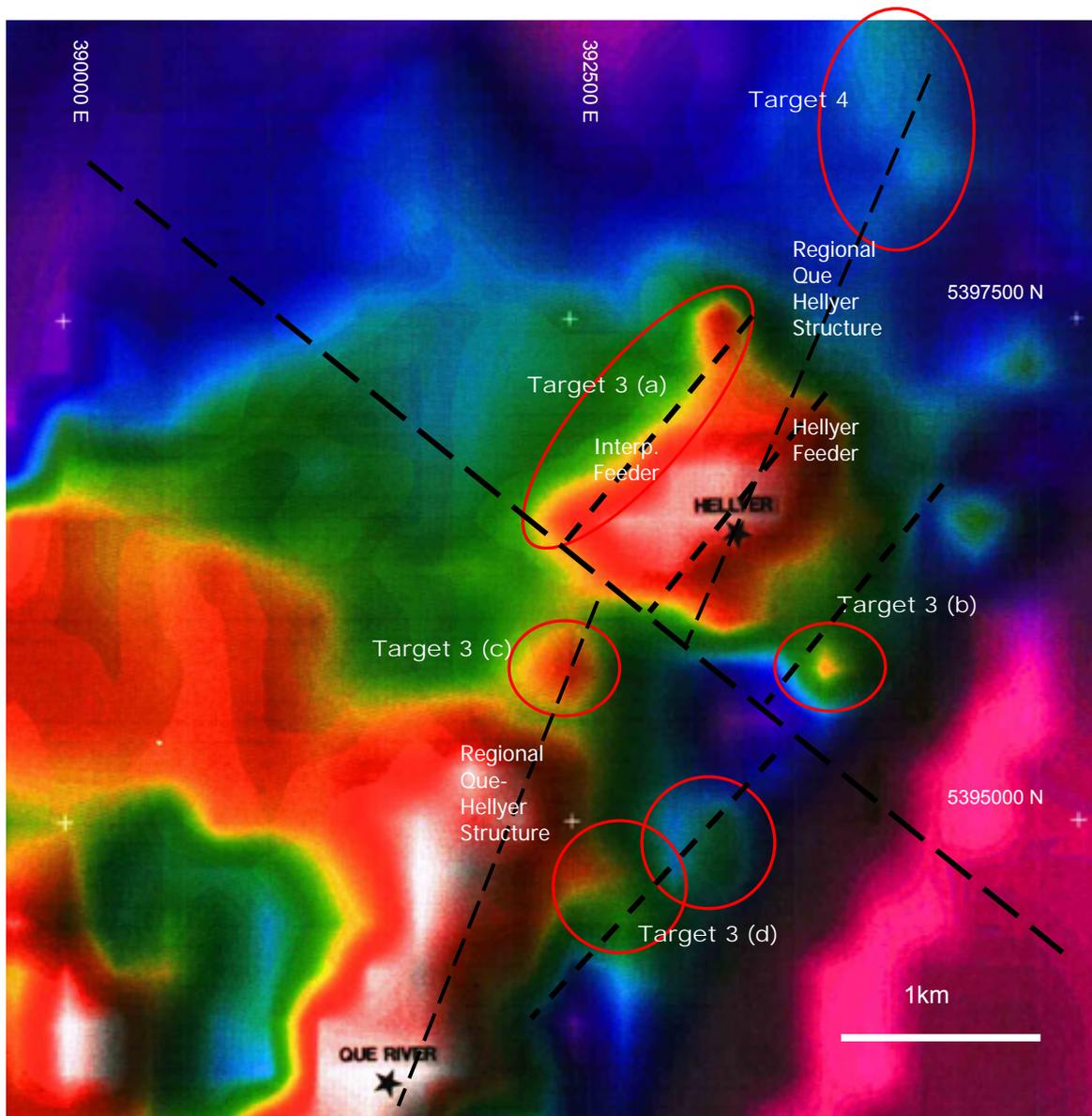


Figure 20: Detail of the bouger gravity image around Hellyer indicating targets for followup. A NNE striking feeder structure, sub parallel to the main Hellyer feeder structure, is interpreted to lie 400m west of Hellyer, with sub parallel features east of Hellyer.

### 3(d) Switchback, South of Hellyer

The “switchback” zone, 1500-1800m SSE of Hellyer, is an area with anomalous outcropping patchy base metal sulphides as clasts in mass flow epiclastics near where the Hellyer ore horizon should occur, indicating proximity to a mineralised lens, and adjacent to a fault parallel to the Easy St Fault. Two discrete gravity highs occur in this area following the NNE trend of gravity highs east of Hellyer, as mentioned above in 3(c). Although a number of holes have been drilled in the area, (MAC001 & 005), the gravity features have not been targeted, and may provide the key. Best results were in drillhole MAC001 with 1.4m @ 4.5% Zn, 5.3% Pb, 0.35% Cu, 35 g/t Ag, 1.4 g/t Au. The drillholes would be positioned near the switchback on the haul road to the Hellyer portal.

---

#### 4. **Maverick Target**

The main NNE striking feeder structure at Hellyer continues northwards through a deep target 2.5km north of Hellyer, another Hellyer style target with potential for a Hellyer style orebody at depth (800 -1500m?). The target is approximately 700m wide, with the western zone displaying a partial leach (TMI) soil geochemical anomaly and the eastern zone showing barite veins in float and Hellyer-style hanging wall alteration (“fuchsite”). A deep gravity feature lies beneath the targets, on the west flank of a major N-S trending fault, which outcrops in a road cutting on the bitumen ‘Link Road’, with considerable ‘fuchsite’. The outcropping rock types are of the Southwell group, which overlie the Que River Shale and Que Hellyer Volcanics.

Geochemical exploration (TMI, Wacker) found patchy elevated Cu, Zn & Pb values and the alteration was not extensive.

The location of hanging wall alteration and barite veining, which can be observed in outcrop above Hellyer could indicate potential “leakage” from a deep mineralized body, that requires deep drill testing.

### **Conceptual “Greenfields” Targets**

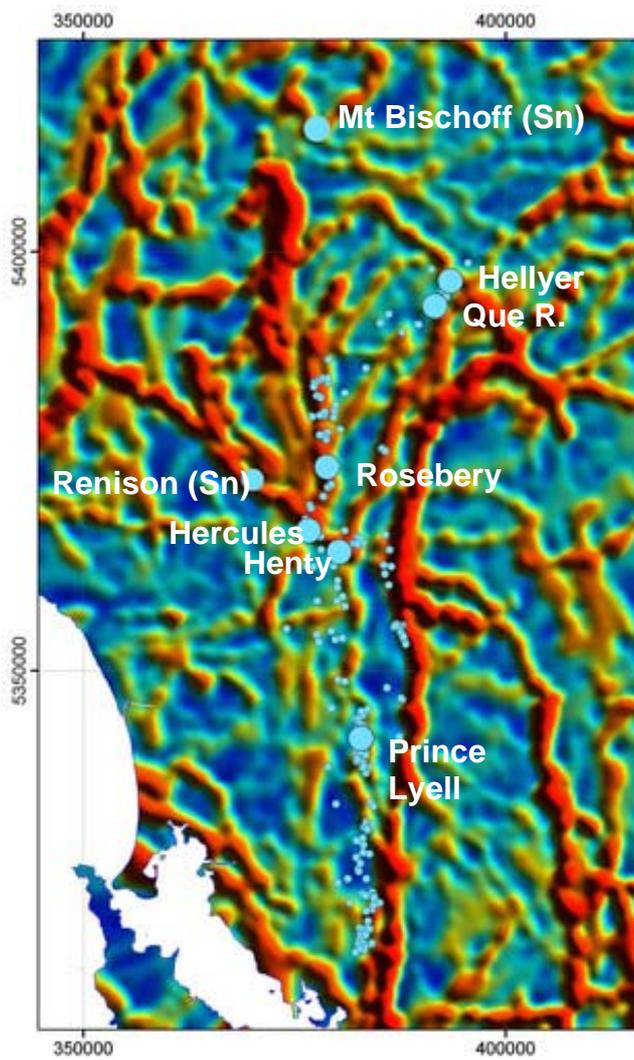
#### 5. **Southwell, a Henty-style Gold Target**

Potential exists in the south east of the tenement package for a Henty-style gold-rich mineralisation, the Southwell Target, which lies under alluvial gravel cover at the intersection of the Henty Fault with the mineralised NW striking Easy St Fault.

The Henty gold mine is a 1+ million ounce high grade orebody, 35 km SSW of Hellyer, along the regional Henty fault, which is a long-lived Cambrian fault feature reactivated over time, especially during the Devonian. The Henty deposit is hosted in silica-sericite altered dacitic volcanics with irregular quartz veins ± sulphides in dacitic volcanics of the Tyndall Group, which stratigraphically overlie the Southwell subgroup and Que Hellyer Volcanics. The mineralisation appears to be VHMS-related mineralisation which has been deformed and possibly remobilised during Devonian folding and faulting.

Reprocessing of new MRT airborne magnetic data with previous regional gravity data as “Worm” diagrams has been useful in identifying potentially deep seated crustal faults essential for tapping metal rich fluids that may generate world class orebodies. These “worm” diagrams highlight the Henty fault and two major north west trending deep crustal, long lived fault features. One features crosscuts the Hercules (VHMS Pb-Zn-Ag), Henty (Au) and Renison (Sn) deposits; the other crosscuts Hellyer, parallel to the Easy St Fault, and intersects the Henty fault 3km to the south east of Hellyer under glacial gravel cover. The Easy Street Fault shows signs of mineralisation near Hellyer, such as sulphides and barite. The Henty fault also shows some signs of mineralisation nearby in previous Aberfoyle surface sampling, immediately SW of the gravel cover. The host sequence at Henty, the Tyndall Group, is not mapped at this locality; only the Southwell Subgroup overlying Que Hellyer Volcanics at depth.

The area of interest was identified as a target by Aberfoyle due to it being a major dilational “jog” in the Henty Fault at the intersection with a NW striking gravity linear and NW striking faults. Base metal mineralised clasts, referred to above in the Switchback area may have been sourced contemporaneously from the Southwell target area. Thick glacial gravel cover prevented effective geochemical testing of the underlying rock units and no further work was conducted. Initial drillholes would be necessary to either confirm the robustness of this target or discard the possibility.



SOURCE: MRT (Seymour 2004)

Figure 21: "Worm" diagram, using merged regional gravity and magnetic data, displays deep crustal faults as linear features along zones of the greatest gradient change. Blue dots indicate mineralisation with the large blue dots being significant deposits. Note the alignment of the Hercules Pb-Zn-Ag & Henty Au deposit along a NW feature, with Henty on the N-S striking Henty fault. This same fault crosses just east of Hellyer, where another major NW striking fault occurs.

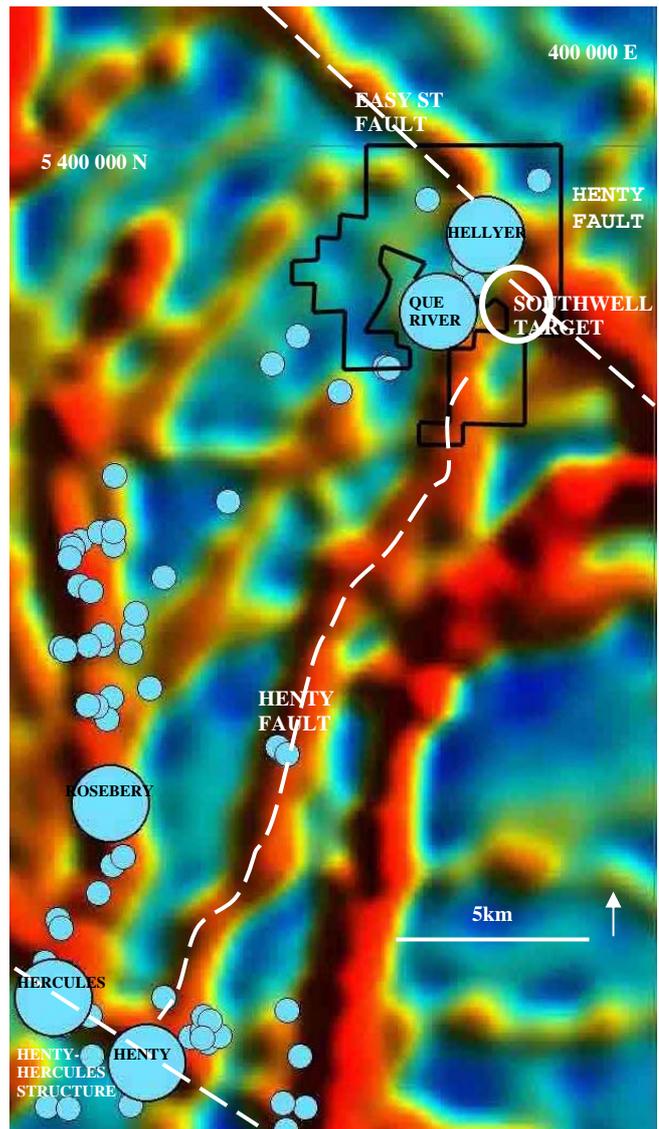


Figure 22: Enlargement of regional "Worm" diagram, showing the Southwell target and its similarities to the Hercules-Henty structure.

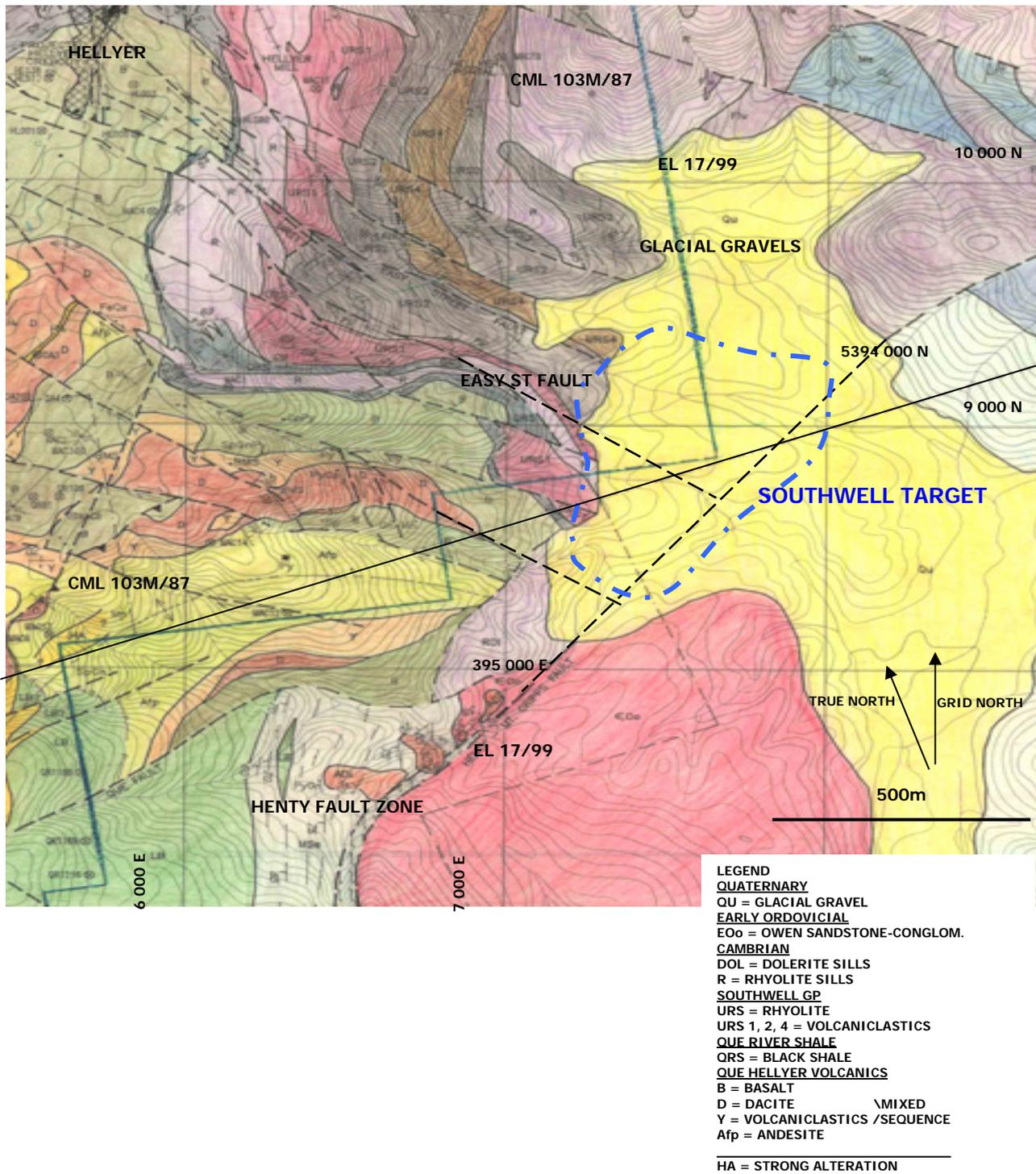


Figure 23: Geology map of the Southwell target area showing the relationship to regional faults and Hellyer. The Switchback target (3(d)) is immediately west of the Southwell target (ref Fig 19).

---

## **6. Black Harry Anomaly**

A weak airborne EM anomaly lies on the NW striking Easy St Fault in a quartzwacke-siltstone host, 4.5 km north west of Hellyer, next to the 'Link Road' (Fig 17). The Animal Creek Greywacke, is mapped at this locality but is not normally seen as a target, lying stratigraphically below the Que River and Hellyer ore horizons. However, a conductor on such a mineralised fault deserves careful review and probably testing.

## **7. Bulgobac River Anomalies**

Weak geochemical (MMI) anomalies were identified by Pasminco at two locations near Bulgobac River (Fig 10), one with a base metal signature, the other with a Au-Bi signature; both located near the Mt Charter fault. These require followup.

## **8. Potential Airborne Geophysical Anomalies**

New Tasmanian Government (MRT) airborne EM, magnetic and radiometric geophysical data may generate further targets when rigorously interpreted by a geophysicist and merged with existing data, especially gravity and drillhole data.

---

## References

- Corbett, K. D., 1992. Stratigraphic-Volcanic Setting of Massive Sulphide Deposits in the Cambrian Mount Read volcanics, Tasmania. *Econ. Geol.* 87:564-586.
- Gemmell, J. B., Large, R. R., 1992. Stringer System and Alteration Zones Underlying the Hellyer Volcanic Hosted Massive Sulphide Deposit, Tasmania, Australia: *Econ.Geol.*, 87: 620-649.
- Hespe, A. M., 1986, Mackintosh EL 2/70, Tasmania. Progress Report for the Period May, 1984 to December, 1985. Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd.
- Hespe, A. M., 1986b. Hatfield EL 15/73 Tasmania, Internal Technical Progress Report for the Period June, 1985 to May, 1986.
- Jack, D. J., 1984. EL2/70 Mackintosh. Report on exploration from January 1983 to April 1984. Aberfoyle Exploration Pty. Ltd.
- Komyshan, P., 1986, Geology of the Hellyer-Mt.Charter area, in *The Mount Read Volcanics and associated ore deposits* (Ed. Large, R.R.), pp.11-19 (Geol. Soc. Aust., Tas. Div.: Hobart).
- Krummei, G., 1972, EL2/70 Mackintosh. Progress report on the Mackintosh area. Aberfoyle Management Pty. Ltd.
- McArthur, G.J., and Dronseika, E.V., 1990, The Que River and Hellyer volcanogenic Ag-Pb-Zn sulphide deposits, IN Hughes, F.E., ed., *Geology of the mineral deposits of Australia and Papua New Guinea: Australas. Inst. Mining Metall. Monograph No. 14*, p. 1229-1239.
- Mc Neill, A.W., 1997. Lake Mackintosh EL 106/87, Tasmania. Technical Progress Report 1996-97; Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd.
- Mc Neill, A.W., 1998. Lake Mackintosh EL 106/87, Tasmania. Relinquishment Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd.
- Mc Neill, A.W., 1998b. The Mt Charter Prospect. Supporting Documentation for a Retention License Application; Aberfoyle Resources Ltd.
- Mc Neill, A.W., 2001. Bulgobac River EL 19/94. Annual Report to Department of Mines, Tasmania by Pasmenco Rosebery Mine.
- McNeill, A. W., 1989a. Lake Mackintosh EL 106/87, Tasmania. Technical Progress Report for the Period February, 1988 to February, 1989. Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd.
- McNeill, A. W., 1989b. Exploration Licence 2/70 Tasmania. Technical Progress Report for the period December 1985 to February 1988. Aberfoyle Resources Ltd.
- McNeill, A. W., 1990. Exploration Licence 106/87. Report on Areas to be relinquished February 1990.
- McNeill, A.W., 1996. Exploration Licence 3/95 Hatfield River, Tasmania. Final Report. Aberfoyle Resources Ltd.
- McNeill, A. W., and Hicks, D. J., 1997. Exploration Licence 106/87. Progress Report for the period February, 1996 to February, 1997. Report to Department of Mines, Tasmania by Aberfoyle Resources Ltd.
- McNeill, A. W., Rand, S.W., and Henham, R.J., 1990. Lake Mackintosh, Exploration Licence 106/87, Tasmania. Technical Progress Report for the Period February, 1989 to April, 1990. Report to Tasmania Department of Mines by Aberfoyle Resources Ltd.
- McNeill, A. W., and Wallace, D.B., 1991. Exploration Licence 106/87. Progress Report for the Period May, 1990 to April, 1991. Aberfoyle Resources Ltd.
- Parfrey, O.C. and McNeill, A.W., 2000. Bulgobac Hill EL37/89 and Bulgobac River EL 19/94, Annual Report to Department of Mines, Tasmania by Pasmenco Rosebery Mine.
- Rand, S. W., 1988. The Geology and Mineralisation of the Mount Charter Prospect. Unpub. B.Sc. (Hons.) Thesis, University of Tasmania. 140p.
- Richardson, S. M., 1992. Exploration Licence 106/87. Progress Report for the Period April, 1991 to April, 1992. Aberfoyle Resources Ltd.
- Richardson, S. M., 1993. Exploration Licence 106/87. Progress report for the Period April, 1992 to April, 1993. Aberfoyle Resources Ltd.

- 
- Richardson, S. M., 1994. Exploration Licence 106/87. Progress Report for the Period April 1993 to February 1994. Aberfoyle Resources Ltd. Richardson, S. M., 1995. Exploration Licence 106/87, Lake Mackintosh, Tasmania. Progress report for the period February 1994 to February 1995. Aberfoyle Resources Ltd. Technical report.
- Richardson, S. M., 1996. Exploration Licence 106/87, Lake Mackintosh, Tasmania. Progress Report for the Period February 1995 to February, 1996. Aberfoyle Resources Ltd. Technical report.
- Richardson, S. M., 1998. Exploration Opportunities in the Vicinity of the Hellyer Orebody; Western Metals Resources Limited. Unpub. Report.
- Seymour, D., 2004. MRT processed geophysical data. Unpub. information
- Sise, J. R., 1983. EL2/70 Mackintosh. Report on exploration for year ending December 1982. Aberfoyle Exploration Pty. Ltd.
- Skey, E. H., 1974. EL2/70 Mackintosh. Progress report on exploration. Cominco Exploration Pty. Ltd.
- Skey, E. H., 1975. EL15/73 Hatfield. Report on exploration for six months ending June 1975. Cominco Exploration Pty. Ltd.
- Staltari, G., 1986. The Que River TEM case study. Exploration Geophysics 17, 125-128.
- Wallace, D. B., 1976. EL2/70 Mackintosh. Que River Ore Reserves. Abminco N.L., unpublished report.
- Wallace, D.B., 1992. Assessment of Pre-Resource Mineralisation, Mt Charter Prospect, Tas; Aberfoyle Resources Ltd.
- Wallace, D. B., 1993. Exploration Licence 106/87, Lake Mackintosh Partial Relinquishment Report for Second Statutory Relinquishment, February 1993.

## ***Disclaimer***

This document, "Exploration Opportunities - Gold, Copper, Zinc-Lead-Silver Exploration Targets Adjacent to the Hellyer Mill", is for information purposes only. The information has been compiled by IHM and its contractors in order to present a fair view as to the exploration opportunities adjacent to Hellyer. Every effort has been made by IHM to provide accurate information, but no guarantee is provided or implied as to the accurateness or completeness of the information or as to the views and opinions expressed. Any individual and/or company must rely on its own reviews and due diligence.

---

## **Appendix – Que River S Lens data**

### **Que River S Lens Resource**

Source: Abminco Internal Report  
“Que River Ore Reserve Assessment: S lens, Dec 1976”

### **Abminco “Zone of Influence” Method**

#### **Geological Reserve**

597 392t @ 1.508%Cu, 2.538%Pb, 4.906%Zn, 54.64g/t Ag, (46% Py) (3.73 SG)

Consisting of:

6 x Zn-Pb rich blocks

394 367t @ 1.09%Cu, 4.99%Pb, 7.38%Zn, 63.08g/t Ag, 0.1g/t Au (45% Py) (5.9m wide, 3.82 SG)

**3 x Cu rich blocks**

**203 025t @ 2.31%Cu, 0.07%Pb, 0.13%Zn, 38.21g/t Ag, 0.1g/t Au (47% Py) (6.6m wide, 3.57 SG)**  
(reserve based primarily on drillholes QR04, QR45, QR92)

#### **Pyrite Rich & Wall Rock Dilution**

222 954t @ 0.065%Cu, 0.38%Pb, 0.77%Zn, 15.0 g/t Ag, 0.5g/t Au

#### **Indicated Total Diluted Reserve**

820 300t @ 1.12%Cu, 1.95%Pb, 3.83%Zn, 43.9g/t Ag

### **Abminco Polygonal Method**

#### **Geological Reserve**

622 100t @ 1.54%Cu, 2.36%Pb, 4.82%Zn, 50.7g/t Ag, 0.12g/t Au

#### **Pyrite Rich & Wall Rock Dilution**

238 400t @ 0.065%Cu, 0.38%Pb, 0.77%Zn, 15.0 g/t Ag, 0.5g/t Au

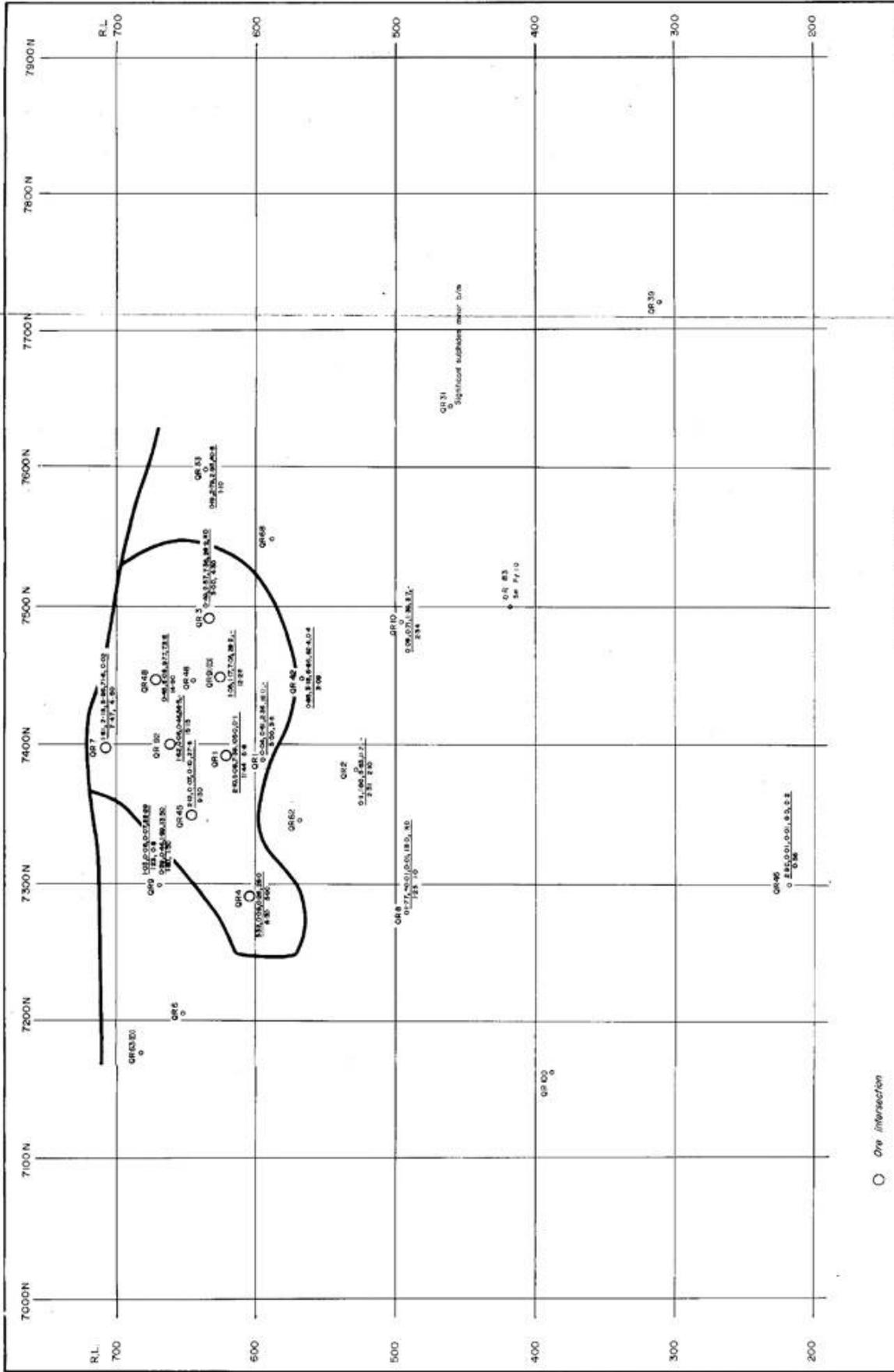
#### **Indicated Total Diluted Reserve (to minimum 3m mining width)**

860 500t @ 1.13%Cu, 1.81%Pb, 3.7%Zn, 40.8g/t Ag

#### **Current Que River S lens prospect (2004)**

Verbal comments made by previous workers at Que River have stated that only the Zn-Pb rich zones were mined at Que River, and that approximately 180 000t is left of Cu rich material at the southern end of the S lens. The geological reserve of the Cu-rich southern end of S lens was 203 025t @ 2.31%Cu, 0.07%Pb, 0.13%Zn, 38.21g/t Ag, 0.1g/t Au (47% Py) (6.6m wide, 3.57 SG), and this extended about 100-150m along strike and 130m downdip.

Therefore, it could be interpreted that around 180 000t remains of approximately 2% Cu, 1oz/t Ag, that was within a body 150m long x 130m deep x 6m wide with mineralised host rock of 0.06 – 0.1%Cu, 15g/t Ag, 0.5g/t Au.



<b>ABMINCO N.L.</b>	
NORTH WEST TASMANIA MACKINTOSH WEST E.L. 2/70 QUE RIVER PROSPECT LONG PROJECTION 'S' LENS	
Drawn: <i>David Wallace</i>	K.G.P.
Titled: R.K.Y.	
Checked:	
Revised:	Date:
Location code: K55/6/44	
Scale: 1:2,500	
Date: December 1976	
Plate No.: GR 27/S	