



## **Quarterly Activities Report to 30 September 2017**

### **September Quarter Activities:**

#### **Piccadilly**

- During the September quarter new and significant sampling and evaluation of the Piccadilly Mine ML 1442 was undertaken by the company. This work confirmed that Gold was not just contained to the high grade quartz veining. Sampling across strike was completed to confirm significant widths and the fact that the mineralization remains open to the North, East, West and down dip.
- The establishment of gold grades being returned from thicker rock units than the quartz veins opened up the potential for bulk tonnage operations as the gold targets are no longer restricted to the high grade narrow quartz veins.
- On the 22<sup>nd</sup> of August the company announced it had completed significant channel sampling
- As a result of increased exploration activity on site the stockpile also increased and was sampled with grades from 2.59g/tAu to 23.3g/tAu being obtained with the average of 20 samples being 12.6g/tAu.
- The company announced on the 13<sup>th</sup> of September that it had entered into a term sheet with Minjar Gold to process ore at their Pajingo mill. On the 21<sup>st</sup> of September announced that an ore purchase agreement with Minjar had been executed.
- Sampling has opened up the possibility of more gold being present across wider lithological units further to the west which is yet to be investigated. This will provide more access to ore to be eventually sent to Minjar for processing.
- The exploration to date at the ML has identified a gold system occurring at the Piccadilly mining lease area which may be driven by an interpreted intrusive source for hydrothermal fluid driving a significant mineralised system. The company announced on the 15<sup>th</sup> of September that it had entered into an earn-in agreement to conduct further exploration in the exploration leases that surround the mining lease area. This area has been likened to other intrusive related gold systems such as Mt Wright, Mt Leyshon, and Kidston by our consulting geologists and external consultants.
- On the 29<sup>th</sup> of September the company provided shareholders with an update as to activities which outlined the significant work completed at the Piccadilly project and the further work that is intended in the coming weeks and months ahead.



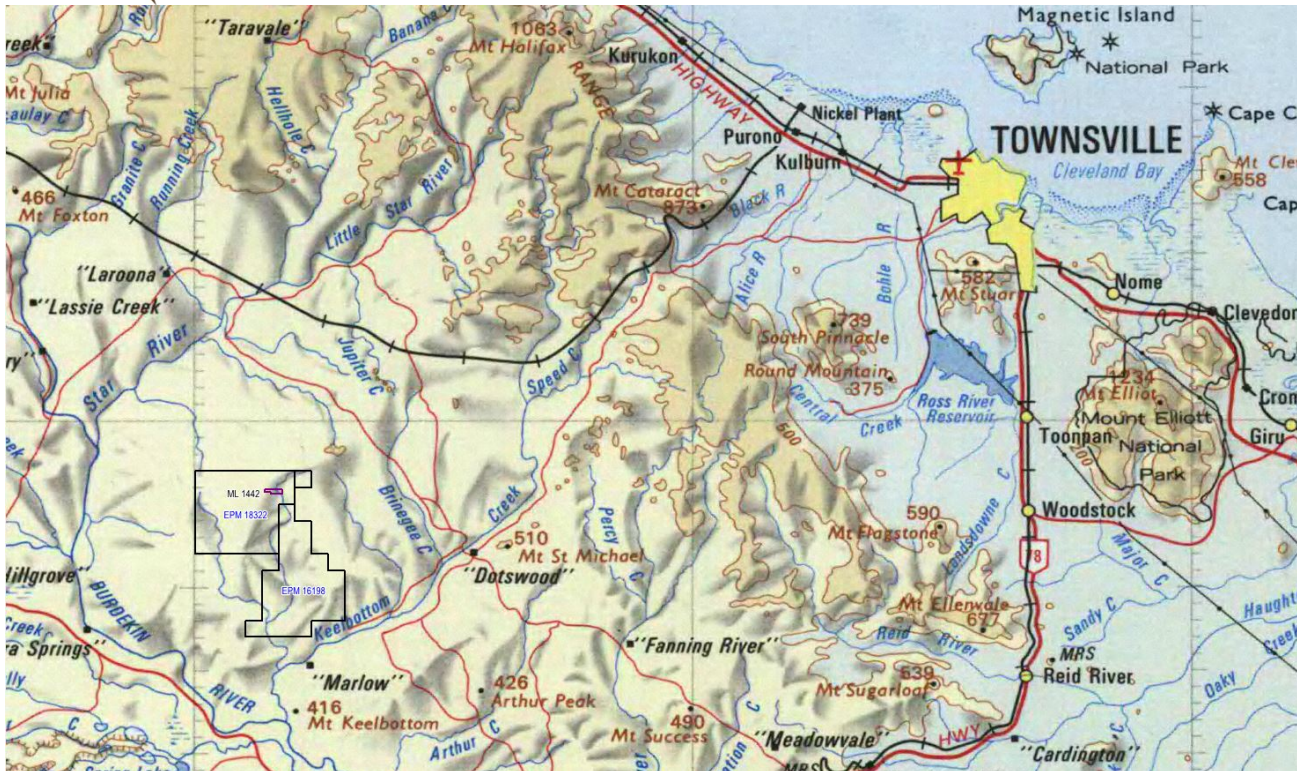
## **Corporate**

- Discussions with interested parties from both domestic and international entities regarding both the Mt Borium project and the Mt Cannindah project are continuing to be undertaken. To date the company has not signed any agreements. The preference is for the company to sell one or both of these assets and we are working towards this outcome. The Mt Cannindah asset is the most advanced having a current JORC resource and recent exploration work which provides significant upside potential to an interested purchaser. The company will only pursue a transaction that realises sufficient value for the benefit of all shareholders.
- The company has entered into an ore purchase agreement with Minjar Gold and also an earn-in agreement with Piccadilly Gold Mine Holdings Limited.
- The company recently announced a Share Purchase Plan and has received funds from both Minjar Gold for the first batch of ore sale as well as the funds from the application for the R&D tax incentive which was made last quarter. The company currently has approximately \$160,000 cash at the date of this release.
- The current Aquis funding facility remains and positive discussions are currently being held with Aquis as to future funding requirements of the company. The board will update shareholders on the outcome of these discussions in due course.
- The Board is currently working through the usual commercial discussions that occur when certain commercial transactions are contemplated. The company hopes to be able to update shareholders on discussions regarding asset sales and further ore sales during the coming quarter.

## **Projects:**

### **Piccadilly Project**

Cannindah Resources Limited has executed an earn-in agreement with Piccadilly Gold Mine Holdings Limited to gain access to 174.35sq km surrounding the mining lease at Piccadilly. As a result of this agreement, EPMs 16198 and 18322 are now under the operational control of Cannindah Resources Limited. See Fig 1-map



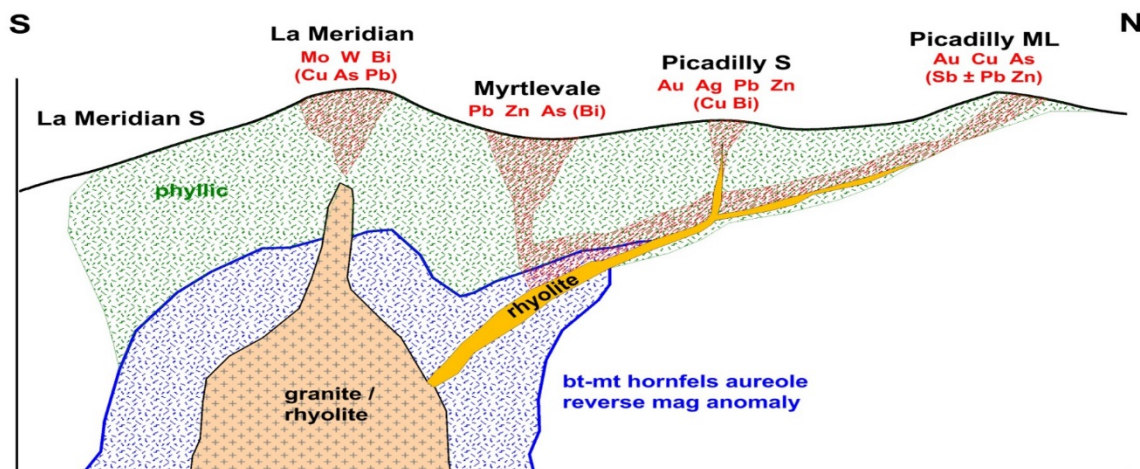
**Figure 1 Location of EPM's and Piccadilly Mining Lease.**

The EPMs surrounding the mining lease have already had significant exploration work completed on them. Cannindah now has the benefit of reviewing this data, and complimenting it with the data obtained from exploration completed within the mining lease to date. The high-grade quartz vein material from the mining lease was at first thought to be the only significant gold-bearing material. However, recent work completed by Cannindah Resources Limited has found that the mineralised area is in fact much larger than first thought and runs across significant widths (e.g. 8m @ 6.99g/t Au from ASX release 25<sup>th</sup> of August 2017). This discovery prompted further consideration of the existing exploration model that Cannindah Resources' consultants Terra Search and Klondike have developed for the Piccadilly Mining District in which the ultimate source of the gold mineralising fluid is an interpreted intrusive centre located approximately 1.5km to the south of the mining lease. Terra Search have been involved in the exploration of the surrounding EPMs from the early stages of the program for Piccadilly Gold Mine Holdings Limited. Dr Gregg Morrison from Klondike Exploration Services has directed his extensive international gold exploration experience to understanding and interpreting the Piccadilly Gold Mining District. Dr Morrison has previously developed mineralisation and zoning models for north Queensland intrusive related gold mines such as Kidston, Mt Leyshon and Mt Wright, which have cumulatively produced over 7 million ounces of gold. Figure 2 is the schematic exploration model that Dr Morrison has interpreted for the Piccadilly Mining District on the basis of existing exploration data. Cannindah Resources' consultants considers that the multi-element, geochemical zoning pattern that occurs over several kilometres at Piccadilly is similar in style and scale to the other major north Queensland intrusive gold systems.





**Piccadilly Cross Section Cartoon**



**Figure 2 Schematic Model of Interpreted Intrusive Related mineral system at Piccadilly.  
(Note idealised geological north south cross section, looking west. (after Beams & Morrison, 2015))**

Figure 2 shows the Piccadilly Mining Lease to the north, with suggested mineralisation dipping to the south towards the intrusive related source. It is interesting to note that this figure was created some years ago by Dr Morrison, on behalf of Piccadilly Gold Mine Holdings Limited, and that the recent work completed by Cannindah Resources Limited has confirmed that the high-grade gold in the Mining Lease does indeed dip to the south towards this area.

Given the cross-sectional dimension in Figure 2, the interpreted intrusive related gold system target potentially presents Cannindah with a very large, bulk-tonnage gold target area that is drill ready and kilometres in scale. A number of geological, geochemical and geophysical surveys have been completed across the EPMs surrounding the mining lease:

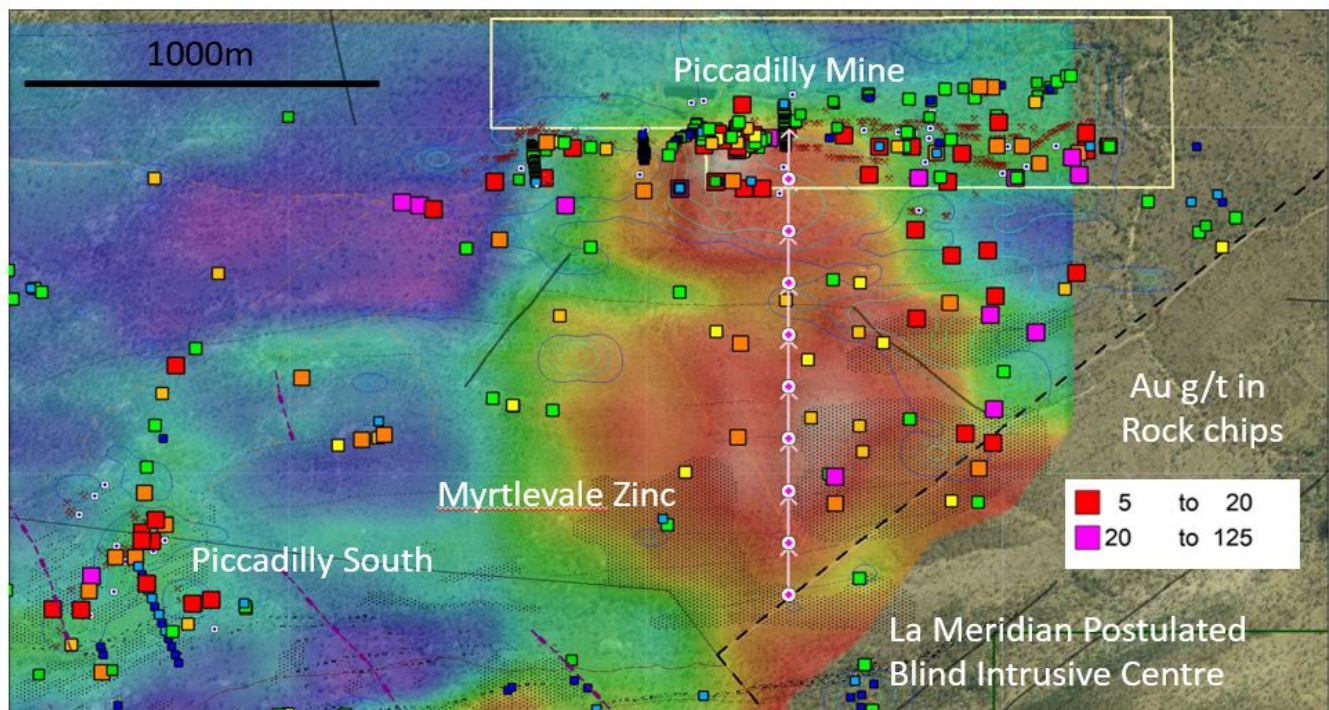
- Rock Chip sampling
- Soil sampling
- Geological mapping
- PIMA mineralogical determination
- Ground based magnetic geophysical survey
- Induced Polarisation Geophysical survey
- Portable XRF analysis

Cannindah Resources Limited has undertaken to review this data in conjunction with work currently being evaluated within the mining lease area to establish a targeted drilling program in the short term. Some 34.8km of IP surveying has been completed, resulting in a clearly defined target zone for the intrusion-centred gold system. Figure 3 is an image of the IP chargeability anomaly modelled at 106m. The image is a predictive model of the intensity of sulphide development that appears concentrated in and south of the ML. The IP anomaly overlaps with an even more extensive area of gold anomalies in both rock chip and soil samples. The line of proposed drill holes shown on Figure 3 commences from the area where Cannindah has confirmed mineralisation within the Mining Lease boundary and steps to the south across the set veins and the south-dipping master structure that is highlighted by the more intense IP anomaly.

Given the high-grade gold material obtained in the recent exploration and announced to the ASX over recent months, Cannindah is very excited to be planning the exploration of this potentially company-making target, a target that has many times been described by consultants as sharing similar geochemical zoning patterns to major north Queensland intrusive related gold systems such as Kidston, Mt Leyshon and Mt Wright.

The focus of the company is to develop a drilling program to confirm the existence of a large-scale, bulk-tonnage target which is currently expressed as being kilometres in scale. Concurrently, the company will continue with some small-scale exploration in the mining lease area, generating some tonnage containing high-grade ore that can be sold to Minjar and thereby generate cash flow. Cannindah Resources Limited will continue to work through the significant amount of existing data sets covering the Piccadilly Mining District to ensure that the upcoming drilling is highly targeted and expands outwards from known mineralisation.

We are very focussed on delivering a great outcome for shareholders over the coming weeks and months, as further work occurs in relation to the EPM area along with the ML.



**Figure 3.** Image of modelled IP Chargeability at a depth slice of 106m below surface , overlain with surface rock chip colour coded gold values.

## Mount Cannindah Project

*Located approx. 100km south of Gladstone, Qld*

- The Mt Cannindah Project represents a large (greater than 9km<sup>2</sup>) high level “porphyry style” Cu-Mo-Au mineralised system. During the quarter the company has outlined further areas of interest other than the known 5.5Mt @ 0.92%Cu at Mt Cannindah to interested parties of the project area. Particular interest is the potential for gold mineralisation within the existing mining lease area which has previously been underexplored.
- No ground based exploration on site was performed during the quarter. The EA amendment application has been considered and approved such that on-going environmental fees are reduced by over \$100,000 per year for the project.

- The following summary of the prospect areas provides an insight into some of the potential for the known target areas within the Cannindah project for further exploration:-

#### **Little Wonder-Midway-Cannindah East prospects**

The presence of a significant breccia fault structure has been confirmed between Little Wonder (LW) and Cannindah East (CE). This structure hosts felsic dykes that have introduced hydrothermal fluids that have altered and mineralised the fault breccia in proximity to the felsic dykes. High grade Au-Ag veins are known at LW and CE within strong alteration. Both these areas (and Midway) are now drill targets for extensions to mineralisation and to possibly locate high grade veins that could be mined by underground methods.

#### **North Mt Cannindah**

It is apparent that the potential northerly extension of the Mt Cannindah mineralisation has not been adequately tested. Several historical shallow holes in this area may not have been deep enough (or were poorly positioned) to test for plunging mineralisation. A very deep angle hole drilled from the west (CARCD003) may not have gone far enough, or could be too deep at this location (about 550m below surface) for a realistic test. The presence of weak mineralisation in DDH017 is encouraging for possible mineralisation continuing to the north or north-east.

Also encouraging is that core hole QMCMDD017 shows good Cu-Au-Ag mineralisation at depth below very low grades in DDH019, RC52, CM21 & QMCMRC016; indicating that good mineralisation is deepening to the north-north-east. To test for deeper northerly extensions of the mineralised zone, it is proposed that one or two angle holes be drilled from east to west, to “scissor” the known intercepts in QMCMDD010 & 025. If successful, additional drilling could be done on 25m intervals to provide extensions to the known Cannindah resource area. These E to W holes would also test the Au-Ag intercepts in QMCMDD025 (20m @ 46.4 g/t Au & 98.2 g/t Ag at 245m), in QMCMRC016 (2m @ 2.54 g/t Au, 8.9 g/t Ag & 0.39% Cu from 16 to 18m, and 3m @ 5.28 g/t Au, 7.2 g/t Ag & 0.32% Cu from 25-28m) and in RC53 (4m @ 1.8 g/t Au from 116 to 120m), and in CM21 (10m @ 2.29 g/t Au, 12.6 g/t Ag & 0.33% Cu from 12 to 22m).

#### **East Ridge (Blockade) Prospect**

The significance of the three MIM holes and Newcrest’s MC002, is that they show the East Ridge contains sporadic anomalous gold, silver and copper mineralisation within the altered angular breccia that makes up much of this East Ridge. Combined with the presence of old gold workings (Blockade), local anomalous soils, and a deep IP anomaly, makes this East Ridge area a potential target for deeper Cu-Ag-Au mineralisation. It is possible the altered breccia over the East Ridge is actually an upper “alteration plume” that could zone downward into significant mineralisation with higher sulphide content in breccia and veins.

It is surprising that west azimuth angle holes were not used in the past to test the Mt Cannindah “ore zone”, by drilling under the East Ridge (Blockade Mine). It is proposed that reconnaissance and research be done in this area, including two or three IP lines. If further encouragement can be raised for this Blockade area, then two or three angle holes could be drilled to the west under the central part of this ridge.

#### **South Mt Cannindah & Mt Theodore**

**South Mt Cannindah:** The previous drilling immediately south of the “ore body” at Mt Cannindah shows narrower zones of weak copper and gold mineralisation (about 0.40 to 0.60% Cu and 0.1 to 1.0 g/t Au & 3 to 5 g/t Ag) extending for about 50 to 75m south (see DDH012 & 032 and QMCMDD009 and CARCD001). There is a short gap due to a failed drill hole (DDH013), before mineralisation picks up from 150 to 250m in three holes close to Mt Theodore (see DDH016 & 027 and CARCD004). The intercept in hole DDH016 is the most significant with 14.3m @ 1.64% Cu, 0.67 g/t Au & 28.4 g/t Ag (including 8.2m @ 2.33% Cu, 0.73 g/t Au & 32.6 g/t Ag). This DDH016 intercept is at 200m vertical depth, and lies beneath a much weaker zone in DDH015 that is at 50m vertical depth. This provides encouragement that the grade and thickness of





mineralisation is increasing with depth. The intercept in DDH027, which is located 65m south of DDH016, continues this zone with 18.5m @ 0.75% Cu, about 0.2 g/t Au & ~11 g/t Ag at 100m vertical depth. Within the DDH027 intercept there are three narrow high grade intervals (0.5 to 1.0m) with 2.4 to 6.6% Cu, 0.31 to 1.55 g/t Au & 28 to 54 g/t Ag. The mineralised zone in CARCD004 appears to be a separate zone which is more a gold zone, rather than a copper and silver zone as in DDH016 & 027. This broad gold zone in CARCD004 could be related to the alteration centred on Mt Theodore (see below). The mineralised zone in DDH016 should have been intersected deep in CARCD004 at about 300m vertical depth. The fact that this did not happen means that the mineralised zones in DDH016 & 027 have either been faulted out of this projected position, or it has weakened considerably at this location. This could be a case of fluids just not accessing the "structure" at this location due to lack of dilation or other controls such as dyke emplacement.

**Mt Theodore:** Although Mt Theodore is made up of strongly brecciated rock, it is a relatively high hill due to the strong alteration that has healed the breccia and made it resistant to erosion. This alteration is related to at least two felsic dykes that intrude the breccia on Mt Theodore. The altered breccia contains significant sulphide mineralisation that based on analysis, would appear to be mostly pyrite. However there is some gold anomalism that is present in the soils, and locally in the rock, that was the focus of early miners. Some low level copper is also present in soils. The presence of sulphides at depth is supported by two IP lines that show moderate chargeability responses under Mt Theodore.

The potential for gold mineralisation under Mt Theodore is enhanced by hole CARCD004 which is located about 150m NNE of Mt Theodore. CARCD004 contains an intercept of 75m @ 0.23 g/t Au, at a vertical depth of 250m. It could be this is the outer fringe of what may lie beneath Mt Theodore. The high Cu-Au-Ag intercepts in holes DDH016 & 027 lie just to the north-east of Mt Theodore, and may be present at depth along the east side of Mt Theodore.

No drill holes have tested under Mt Theodore, and no explanation is made for the large volume of alteration. It is possible this alteration is a cap or plume above significant Au-Ag and Cu-Au-Ag mineralisation in a vein-breccia system associated with felsic dykes. It is proposed that a significant effort be made to test for deeper mineralisation to the south of Mt Cannindah, and in particular, under Mt Theodore. This should entail the use of an IP/resistivity survey looking to depth (~300m), followed by moderately deep drilling to test chargeability anomalies and specifically under the alteration zone at Mt Theodore.

### **Apple Tree**

The Apple Tree prospect is a broad fault breccia zone that has been intruded by multiple felsic dykes that have released hydrothermal fluids into the breccia, adjacent to the dyke contacts. The fluids have provided significant copper, silver, gold and molybdenum into the re-fractured and brecciated altered rock. The zone of known mineralisation is up to 800 metres long and 50 metres wide; and none of the earlier drilling has tested below about 36 metres depth. A deep IP chargeability response is present, and therefore opens the possibility for a deeply mineralised system. It is proposed that a detailed IP survey be conducted over Apple Tree with the aim of defining drill targets at depth and along strike.

### **United Allies**

The United Allies prospect has several historical high grade copper drill intercepts that appear to be associated with felsic dykes and related hydrothermal alteration and mineralisation. The dykes have intruded into structures within a broad polymict breccia zone that is thought to trend NE-SW.

The breccia has undergone variable argillic to phyllic alteration with local silicic alteration that has healed the breccia. It is noted that the alteration in the Newcrest core hole (MC004) appears to be stronger and more widespread than the alteration seen in the trenches. Almost all of the breccia in the MC004 appears



to be strongly altered, whereas the surface trenches show local zones of alteration within larger areas of clayey matrix breccia (thought to be a fault breccia). Hence, the more pervasive alteration in MC004 may indicate a strengthening of alteration with depth.

A very deep IP response occurs beneath United Allies on the IP sections produced by GeoDiscovery in 2011. This needs further reprocessing work.

The presence of higher copper assays with maroon coloured limonite at around 100m downhole in MC004 (est. ~70m vertical depth), may indicate deep oxidation and supergene copper mineralisation. This possibility appears to be supported by several of the MIM holes in the vicinity of MC004, where significant copper mineralisation is present to over 40m depth. The possibility for deeper supergene copper could improve the resource potential of this area.

Most of the early drilling was vertical and did not target the dyke/alteration structures. Hence many holes only returned modest copper results. Where drill holes did intersect dyke edges, the copper grade was generally quite high. It is proposed to drill several angled drill holes to test the dyke/structure contacts at about the level of supergene enrichment. This could add significant resource tonnes for the prospect. An IP survey would also be helpful in trying to define the deep chargeability response seen below United Allies

#### **Lifesaver, Monument, South Monument & Dunno**

These four prospects contain significant vein and breccia mineralisation related to structures and felsic dykes that have introduced the hydrothermal solutions. These mineralised structures are closely related to very strong soil assays for copper, gold and molybdenum throughout the greater area. It is apparent that many of the ridges in this area are underlain by similar mineralised structures.

The presence of good copper and local gold mineralisation in trenches and shallow drill holes at Monument, Lifesaver and Dunno raise the possibility that these areas could be considered potential open pit targets, as well as a possible underground targets for high grade Cu-Au-Ag veins.

It is proposed that shallow angle drilling be done on all of these prospects to better define the mineralised structures. Assuming encouraging results, the shallow drilling could be followed by an IP/resistivity survey to define the mineralised structures to depth. This could then be followed by deeper drilling to test the mineralised structures at depth.

#### **Monument Ridge**

Monument Ridge contains two types of hydrothermal breccia that are associated with faulting and the intrusion of felsic dykes. Gold in soils are strongly anomalous on the central part of the ridge, and an IP chargeability anomaly appears to underlie the ridge. It is likely that altered sulphide bearing structures occur in the core of Monument Ridge and possibly in several nearby ridges.

The Monument Ridge and other nearby ridges need to be mapped and sampled in more detail to better understand the structural control on potential deeper mineralisation. IP lines could be run at right-angles to ridges at strategic locations, to better define the chargeability responses under the ridges. Ultimately angled drill holes should be used to test for mineralisation underlying the ridges.

#### **Barrimoon Vein**

The sheer size of the Barrimoon vein and alteration structure makes it a viable target for a potential epithermal to mesothermal gold/silver deposit. The length is about 4 kilometres and the width of the shear/vein zone appears to be in the tens of metres.

The other positives for the Barrimoon vein are:





- The moderately anomalous assays for gold (0.05 to 0.21 g/t Au) and arsenic (100s of ppm As) from many rock chip samples at various locations along the vein. Further rock chips have been lodged with LS and the company is awaiting results of assaying.
- The presence of gold in gossan shears and veins in Carboniferous sediments at the Golden Crown gold prospect on the east end of the Barrimoon structure.
- The highly anomalous bismuth and tellurium in the rock and trench samples at Golden Crown.
- The presence of felsic dykes intruding into the Barrimoon structure, similar to that seen at Cannindah. This tends to support the connection of the Barrimoon vein to the Cannindah intrusive complex.
- No drilling has tested the vein at the unconformity between the older sediments and younger overlying volcanics (other than at Golden Crown, which is 3-4 km from Cannindah).

Given the apparent high level of this vein in the epithermal – mesothermal system; it is suggested that this vein needs to be tested between 200m to 350m below the present surface. Ideally drill holes should test just above, and just below the level of the unconformity between the Carboniferous sediments and the overlying Triassic andesitic volcanics. The initial drilling could use RC holes angled north-west from the lower slopes on the south side of the vein.

#### **Kalpawar Fault**

If the Kalpawar Fault formed before or during the emplacement of the Cannindah Intrusive Complex, then there is a possibility it could be mineralised. More recent movement on this fault has allowed erosion to form the present river valley. Oxidation can be expected to be quite deep in a large fault occupying such a river valley. Thus, any sulphides present would also be oxidised to great depth, and would be difficult to detect by IP.

If evidence arises showing the Kalpawar Fault is younger than the Cannindah intrusive complex, then nothing need be done. On the other hand, if it remains debatable, then further work should be considered to resolve the question, and target possible mineralised areas. This work could include the re-assessment of the Newcrest IP/resistivity data, followed by a new IP survey of two or three lines attempting to look deep on the most likely sites. If successful in finding a chargeability anomaly, then drilling could be contemplated.

#### **Mount Borium Gold Project**

(EPMs 18960, 19009, 19015)

- No work was conducted on these projects during the period.



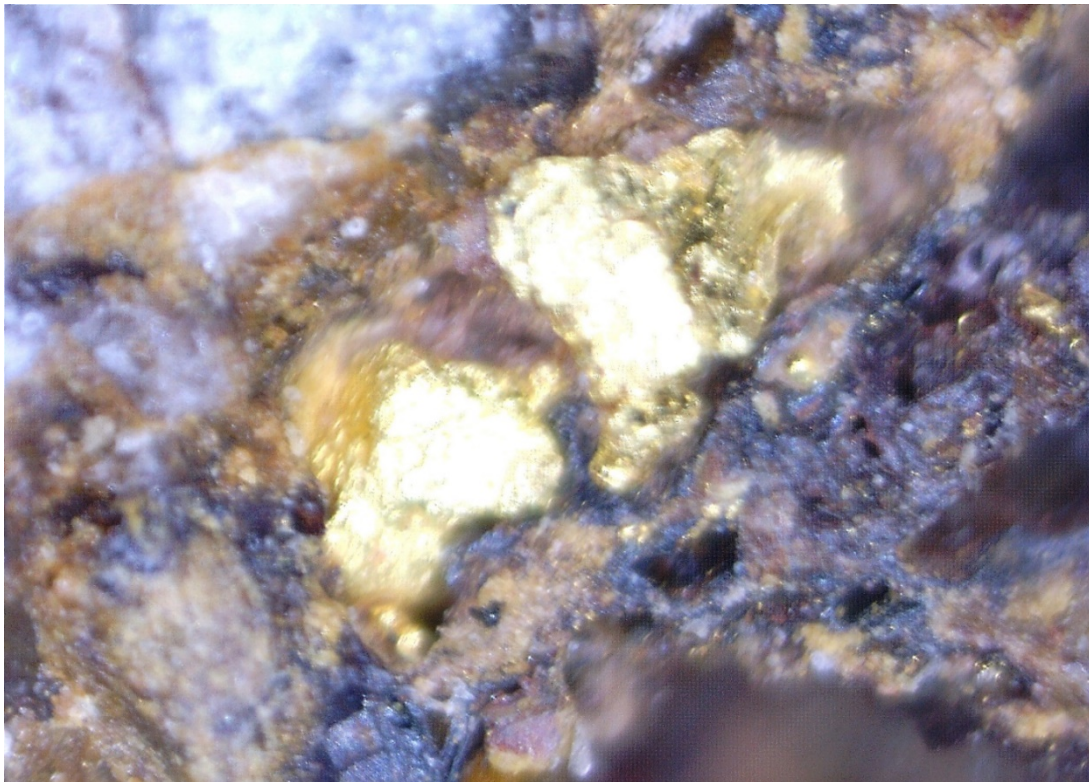
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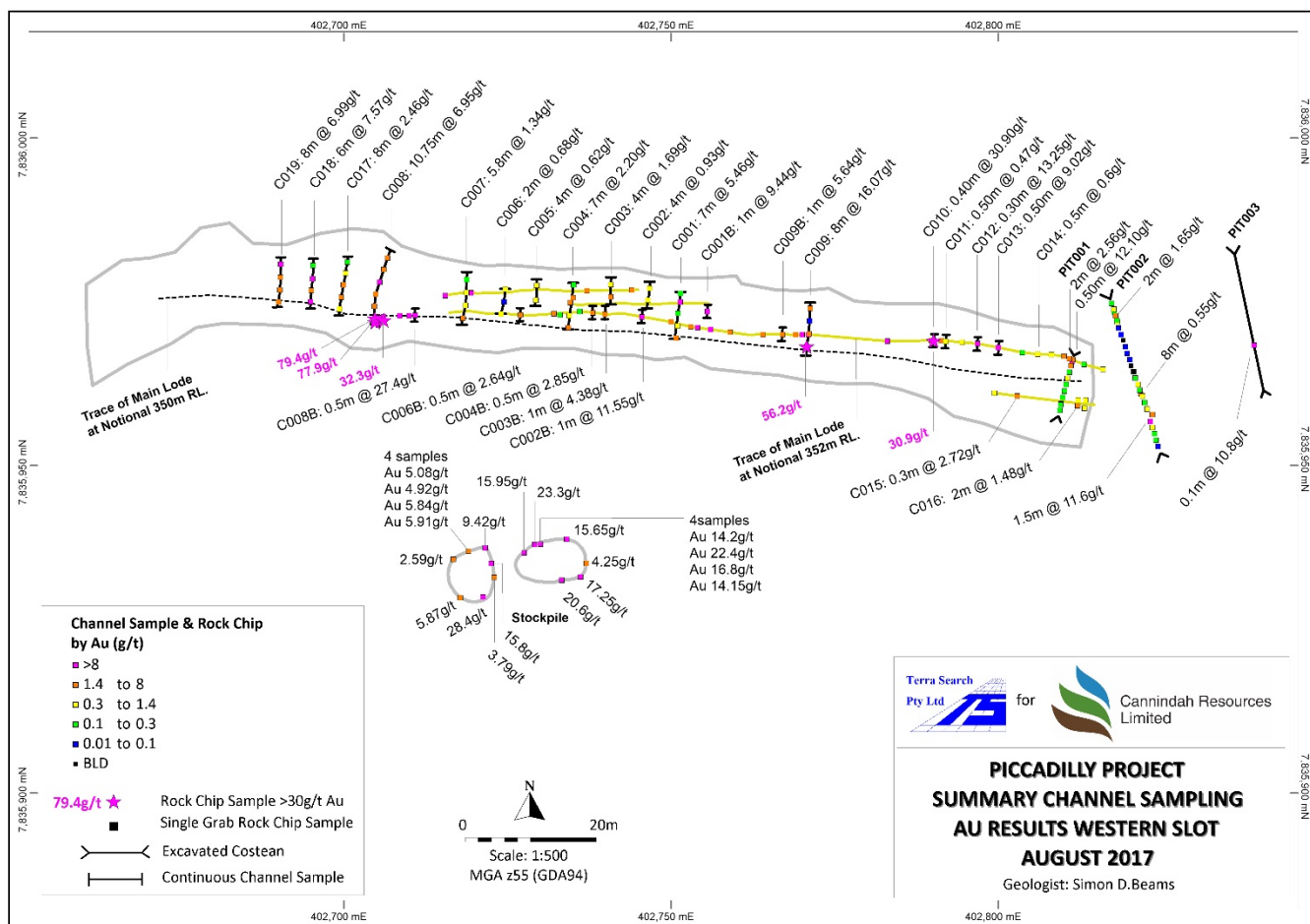
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## COMPETENT PERSON STATEMENT

*The information in this report that relates to exploration results has been previously released to the ASX and has been reviewed by Mr Laurie Johnson B.Sc (Geology) F.AusIMM who is a Director of Cannindah Resources Limited. Mr Johnson is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and is bound by and follows the Institute's codes and recommended practices. Mr Johnson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Persons as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion of this information in the form and context in which it appears in this report.*

*The information in this report that refers to Mineral Resources has been reviewed by Mr Laurie Johnson B.Sc (Geology) F.AusIMM who is a Director of Cannindah Resources Limited. Mr Johnson is a member of the Australian Institute of Mining and Metallurgy (AusIMM) and is bound by and follows the Institute's codes and recommended practices. Mr Johnson has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Persons as defined in the 2004 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Johnson consents to the inclusion of this information in the form and context in which it appears in this report.*





Cannindah Resources  
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***31 October 2017***

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