

**Technical Report**

--on the--

**CUMBERLAND PROPERTY  
Georgetown District  
Queensland, Australia**

--for--

**Essex Minerals Inc.  
3002 -1211 Melville Street,  
Vancouver, B.C. V6E 0A7**

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(Signature Date: July 24, 2020)

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## SUMMARY

### Introduction

Richard Newport & Associates (“RNA”), has prepared this independent report on the KNX Resources Limited. (“KNX”) 80 percent (80%) owned Cumberland Property located in the Georgetown District of North Queensland, Australia, for Mr Paul Loudon, Chief Executive Officer and Director of Essex Minerals Inc (TSX-V:ESX). KNX is an Australian unlisted public company. The minority twenty percent (20%) is owned by AMD Resources Limited, an Australian unlisted public company.

This report is an Independent Technical Report prepared to Canadian National Instrument 43-101 (“NI 43-101”), Form 43-101F1, Technical Report and Companion Policy 43-101CP standards.

The report assesses the technical and economic potential of the Property areas and recommends a follow-up program.

### Property

KNX has title to the following Queensland Mining tenements comprising five (5) Exploration Permits for Minerals (“EPM”) through it’s wholly owned subsidiary Ismins Pty Ltd (“Ismins”), the registered applicant or holder of the legal interest pursuant to the terms of the minerals Resources Act 1989 (Qld) (“the MRA”).

The five (5) granted EPM’s are EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586. They are contiguous and adjacent to one another in the Georgetown District of North Queensland.

### Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Cumberland Property is centred at Latitude 18° 21' S; Longitude 143° 20' E, 25km WSW of Georgetown in North Queensland (Figures 1 and 2). Access is via the all-weather Gulf Developmental Road that passes through Georgetown, linking Cairns – 380km to the east - and Normanton – 301km to the west. An all-weather sealed airstrip is located at Georgetown.

The region has a tropical savannah climate (with high humidity and two seasons, the wet season (November to April) and the dry season (May to October). A tropical monsoon season occurs from December to March with doldrums occupy the transition periods during November and April. Winters are dry with average temperatures in the mid to high 20’s°C.

The topography consists of rolling, low-level hills and flat river plains, dissected by the Gilbert and Etheridge rivers that drain northwards into the Gulf of Carpentaria. The vegetation is low stand eucalyptus woodland, scrub and savannah grasslands.

### History

The Etheridge Goldfield at Georgetown, contains numerous mesothermal vein quartz-gold-base-metal sulphide deposits from which some 20t of Au-Ag bullion has been extracted. These deposits, which are not within the Property tenements, are mostly hosted by Proterozoic granitic and metamorphic rocks. The estimated age of the mineralizing event is 426-398 Ma (Siluro-Devonian), which is similar in age to the Charters Towers gold deposits.

Kidston is the largest precious metal deposit in the region (>138t of Au and Ag mined by Kidston Gold Mines between 1985 and 2001). It is hosted by sheeted quartz veins and cavities in brecciated Silurian granite and Proterozoic metamorphics above nested, high-level Carboniferous intrusives associated with a nearby circular cauldron subsidence structure.

Substantial exploration work was undertaken by a number of companies from the 1970's onwards in the region covered by the Cumberland Property. The more significant work was carried out by Bridge Minerals Pty Ltd (1970-1972), Battle Mountain (Australia) Inc.(1987-1989), Kidston Gold Mines Ltd (1995-2000) and Mega Georgetown Pty. Ltd, (2006-2007) before KNX subsidiary Ismins Pty Ltd lodged the current EPM's (2012).

## **Geological Setting**

The geology of the Cumberland Property is in the western portion of the Georgetown Inlier, which makes up most of the Etheridge Province. The inlier occupies approximately 50,000 square kilometres to the west of the North Queensland coast between Cairns and Townsville. It consists of variably metamorphosed and deformed sedimentary and volcanic rocks of Palaeo- to Mesoproterozoic age, intruded by Mesoproterozoic granites. The Proterozoic rocks have been intruded by Siluro-Devonian age I type granitic rocks during a period of subduction and underplating that is thought to have occurred during the Tabberabberan cycle of the Tasman Orogen (ca 430-380 Ma). The Georgetown Inlier subsequently experienced a period of felsic intrusion and accompanied sub-aerial volcanism during the Carboniferous to Permian period (ca 350-230 Ma), associated with extension and rifting that developed during the Hunter-Bowen cycle of the Tasman Orogeny. This magmatism is termed the Kennedy Association, consisting of widespread and voluminous extrusive and intrusive igneous rocks, producing a number of large volcanic subsidence structures. The Cumberland Property covers a large outcrop of the Carboniferous-Permian felsic intrusive and extrusive igneous rocks in the western margin of the Georgetown Inlier.

The prospect geology of the Cumberland Property consists Permo-Carboniferous acid intrusives and their related sub-aerial volcanics of the Cumberland Range Volcanics which cover much of the southern and western portions of the property. They form a partially preserved collapsed caldera structure in the south with more deeply eroded dykes of high level (sub- volcanic) intrusives of microgranites and rhyolites to the north and west. These dykes host later rhyolite dykes and breccia veins and pipes.

The gold-silver-copper prospects on Cumberland are associated with the altered and mineralised fault/vein structures that are in close proximity to the high level felsic intrusives. These high level intrusive systems are likely to have significant stockwork veins and breccia pipes associated with the sub-volcanic dykes and plugs at depth. Several large fault structures are also present within the tenement, and these also host significant gold-silver-base metal mineralisation

## **Deposit Types**

The principal deposit types targeted in the Cumberland Property are intrusion related gold and silver mineralization. The style and depth of formation of gold-silver deposits approaching the metal bearing igneous system varies from distal (epithermal) through intermediate (porphyry) to proximal (plutonic). These deposits can be accompanied by economic concentrations of gold, silver, copper, base and other valuable metals. Epithermal porphyry and plutonic ore deposits develop in response to plate tectonic processes, typically as partial melting related to subduction gives rise to magmatism mainly within compressional and locally transpressional, linear magmatic arcs extending into the back arc extensional settings. Magmatic arcs are distinguished between island arcs which are underpinned by oceanic crust and continental arcs that form on continental plate margins (Pirajno 1992). Island arc igneous rocks tend to be intermediate to felsic in composition, whereas continental arcs and back arc igneous rocks tend to be more fractionated and felsic in composition

## Mineralization

Silver and gold epithermal mineralization occurring on the Cumberland Property has been identified in six (6) prospects listed in this report They are ;

1. Log Creek
2. RBZ
3. The Rock
4. Pillars (and 79 Anomaly)
5. Golden Orb
6. WFM Breccia

All have significant silver and gold values recorded in rock chip and soil geochemical samples. Log Creek prospect is the only one that has been drilled (KGM 1997).

## Exploration

Substantial exploration work on the Cumberland Property was undertaken by a number of companies from the 1970's onwards, with the more significant work carried out by Bridge Minerals Pty Ltd (1970-1972), Battle Mountain (Australia) Inc.(1987-1989), Kidston Gold Mines Ltd (1995-2000) and Mega Georgetown Pty. Ltd, (2006-2007) before KNX subsidiary Ismins Pty Ltd lodged the current EPM's (2012).

Bridge Minerals Pty Ltd (1970-1972) ("BML") undertook regional stream sediment that were analysed for copper (Cu), Lead (Pb), Zinc (Zn) and Molybdenum (Mo). Anomalous results were recorded near known historic mining activity. Follow up rock chip program focused on the stream sediment anomalies and the historic mine site which were also geologically mapped. BML concluded that there was insufficient encouragement to continue exploration on the tenement.

Battle Mountain (Australia) Inc.(1987-1989) ("BMA") explored the southern half of the Cumberland Property, taking detailed stream sediment and follow up rock chip geochemical samples. The highest rock chip sample returned values of 370g/t Au 840g/t Ag, with the average of twenty four (24) samples returning 44g/t Au and 139g/t Ag. BMA was the first to identify that some of the silver and gold mineralization on the Cumberland Property was contained brecciated, sheared and altered rhyolites related to the Permo-Carboniferous age sub-volcanic intrusions.

Kidston Gold Mines Ltd (1995-2000) ("KGM") explored the northern part of the Cumberland Property as part of their large property holdings in the Georgetown District, searching for gold and silver mineralization primarily of a similar style to their Kidston mine 100 kilometres to the southeast.

KGM conducted detailed stream sediment rock chip and large scale soil grid geochemical sampling of the Cumberland Property. The geochemical program returned results that were: anomalous in precious and base metals, following the general trend of alteration. Anomalous gold returned up to 592 ppb. In the rock chip sampling program, 6 out of 22 rock samples returned >0.5g/t Au with a high of 2.15g/t Au. The geochemical sampling program was followed up by mapping, ground magnetics, gradient and dipole-dipole IP/Resistivity surveys and finally drilling five (5) holes at the Log Creek prospect.

Mega Georgetown Pty. Ltd, (2006-2007) ("MGP") acquired a detailed (100m line spacing), airborne low level magnetic and radiometric geophysical survey over a large area in the Georgetown district, flying 40,270 line kilometres. Although the survey covered the Cumberland Property, no follow-up work was carried out in the area.

Ismins Pty Ltd (“ISM”) lodged the current EPM’s in 2012 and continued exploration up the present day (2020). commencing exploration after the granting of EPM 18775 and 19017. ISM conducted reconnaissance exploration to confirm the high-grade assays of gold and silver recorded from previous explorers (Spencer, 2013). ISM continued to carry out detailed mapping, rock chip and soil geochemistry and acquisition of LiDAR geophysics. Previous staged exploration from initial reconnaissance to detailed geochemical sampling and mapping, in combination with interpretation of the MGP magnetics and radiometrics, coupled with structural geology interpretation from the LiDAR, has allowed ISM to focus on key areas of interest (Spencer 2020).

The key points gained from ISM exploration are:

- Regional association of Ag/As stream sediment geochemistry and the lack of follow up of anomalism by previous operators
- Recognition of epithermal style mineralisation associated with significant surface values spatially associated with the interpreted Permo-Carboniferous intrusives.
- Recognition of high level epithermal veins associated with the Permo-Carboniferous Cumberland Volcanics
- Interpretation of MGP magnetic and radiometric data with respect to the identified prospects and regional structure.
- Acquisition of Lidar leading to a detailed understanding of the structure and lithological association of the observed surface mineralisation.

## **Drilling**

KGM drilled five (5) RC holes (1997) into IP chargeability anomalies located at the Log Creek prospect. A review of the KGM five-hole drill program found that the first four drill holes at Log Creek were targeted on linear IP chargeability and coincident base-metal soil anomalies associated with quartz-sericite alteration located on a NW trending ridge. The fifth hole targeted a similar trend to the south. Assays of the drilling samples returned narrow intervals of low-level gold and strongly elevated base metals. Silver was significantly anomalous, returning up to 63ppm Ag (2oz/t) over a 2m interval, 30m down hole (the corresponding gold assay was 0.83ppm Au). KGM considered the presence of breccias and similar vein assemblages within this large mineralised system, to have affinities to the Kidston breccia-hosted gold deposit (3.7Moz Au), approximately 100km to the south east.

## **Interpretation and Conclusions**

A mineral resource has not been discovered on the property. For this reason, the property is considered an early stage exploration project, with excellent potential of discovering a precious metal resource. Previous exploration has identified the potential geologic setting for an epithermal style precious metal resource that is likely to be silver (Ag) dominant with gold (Au) credits. The evidence of mineralization in favourable host rocks is sufficient to warrant ongoing work programs.

The Cumberland property is considered a property of merit, and is worthy of a significant initial phase of exploration.

## **Recommendations**

RNA recommendations for ongoing work on the Cumberland Property covers two stages of field work designed to attain the following exploration/development objectives;

- Drill target definition – Collection and assay of soils samples, followed by drill targeting.
- Target drilling -- Drilling of four (4) diamond drill holes into the RBZ prospect.

## **1.0 INTRODUCTION**

Richard Newport & Associates (“RNA”) of 149A McCarrs Creek Road, Church Point, NSW, Australia, was requested by Mr Paul Loudon, Chief Executive Officer and Director of Essex Minerals Inc (TSX-V:ESX) of 3002 -1211 Melville Street, Vancouver, B.C. Canada to prepare an independent report on the KNX Resources Limited. (“KNX”) 80 percent (80%) owned Cumberland Property located in the Georgetown District of North Queensland, Australia (Figure 1)

This report is an Independent Technical Report prepared to Canadian National Instrument 43-101 (“NI 43-101”), Form 43-101F1, Technical Report and Companion Policy 43-101CP standards. The report assesses the technical and economic potential of the Property areas and recommends a follow-up program.

RNA understands that this Report may be used by ESX for securities regulatory filings and for exploration/development fundraising activities.

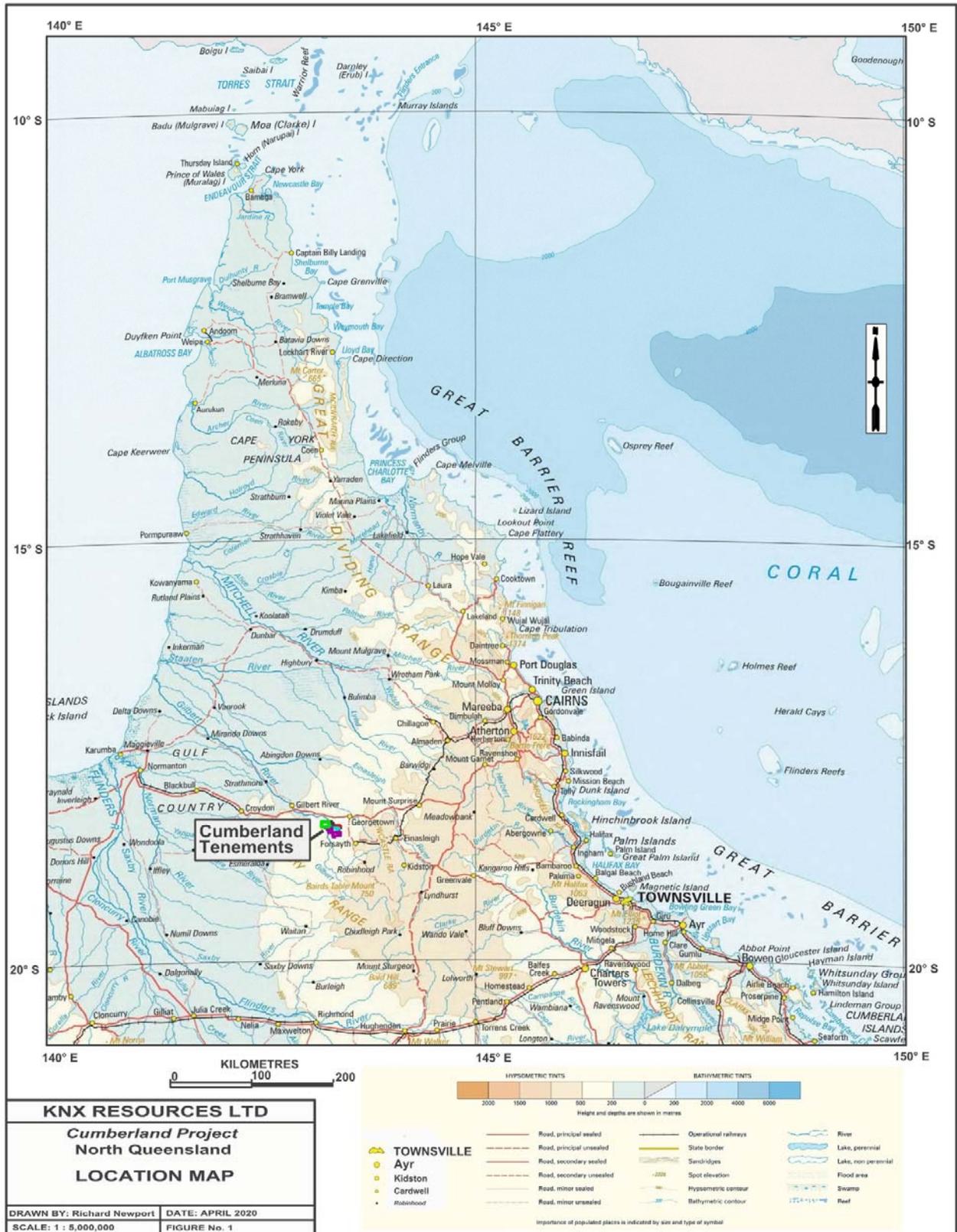


Figure 1: Location Map (extracted from Geoscience Australia 1:5M Topographic Map)

## **1.1 Authorization and Terms of Reference**

Essex Minerals Inc. retained RNA on April 24th, 2020, to prepare an Independent Technical Report on the Cumberland Property to conform to National Instrument 43-101. This report, with an effective date of 24<sup>th</sup> July 2020, was commissioned and authorized by Mr Paul Loudon, Chief Executive Officer and Director of Essex Minerals Inc. The report was prepared in Sydney, Australia between 24<sup>th</sup> April, and 04<sup>th</sup> June, 2020.

## **1.2. Qualifications of RNA and Authors**

RNA is a geological consulting partnership, which was established in the State of New South Wales, Australia in 1986. RNA provides a wide range of geological consulting services to the international mining industry, primarily in Property generation, exploration, evaluation and reviews of mineral properties. RNA is not an insider, associate or affiliate of Essex Minerals Inc.

The Report has been prepared by Mr. Richard Newport BSc. (Hons), MAIG Principal Geological Consultant with RNA. Mr Newport has over 47 years of experience in the mining industry that includes extensive experience in a wide variety of exploration and mining Properties throughout Australia and the South West Pacific.

Mr Newport has a demonstrated track record in undertaking independent assessments of Property evaluations, technical reports and independent feasibility evaluations up to bankable standards on behalf of exploration and mining companies. He has the relevant technical experience of the deposit type that is reviewed in this Report.

Neither RNA nor the author of this Report (nor their family members or associates) have a business relationship, other than acting as an independent consultant, with Essex Minerals Inc or any associated company, nor with any company mentioned in the Report, which is likely to materially influence their impartiality or create the perception that, the credibility of the Report could be compromised or biased in any way. The views expressed herein are genuinely held and deemed independent of Essex Minerals Inc.

Moreover, neither the authors of the Report nor RNA (nor their family members or associates) have any financial interest in the outcome of any transaction involving the properties considered in this Report, other than the payment of normal professional fees for the work undertaken in their preparation (which are based upon hourly charge-out rates and reimbursement of expenses). The payment of such fees is not dependent upon the content or the conclusions of either this Report, or any consequences of any proposed transaction.

Essex Minerals Inc has accepted that the qualifications, expertise, experience, competence, and professional reputation of RNA's Principals, are deemed appropriate and relevant for the preparation of this Report. Essex Minerals Inc has also accepted that RNA's principals are members of professional bodies that are appropriate and relevant for the preparation of this Report.

### **1.3. Scope of Work and Sources of Information**

Essex Minerals Inc commissioned RNA to compile the Technical Report on the properties and develop an appropriate exploration/development program.

In preparing this report, RNA reviewed geological reports and maps, miscellaneous technical papers, company letters, memoranda and other public and private information listed in the References section at the conclusion of this document. The current report is based on information provided by and discussions with Mr Lee Spencer, Director of KNX Resources Limited. In addition, RNA completed site visits in June 2018 and May 2019 as part of an Independent review of KNX's Cumberland property.

The report is based on information known to RNA as of 04<sup>th</sup> June, 2020.

All measurement units in this report are metric, and currency is expressed in *Canadian Dollars*. The exchange rate on March 22<sup>nd</sup>, 2010, was US \$1.00 equal to \$1.019 Canadian Dollars.

## **2.0 RELIANCE ON OTHER EXPERTS**

RNA assumed that all of the information and technical documents reviewed and listed in the “References” are accurate and complete in all material aspects. While RNA carefully reviewed all of this information, RNA has not conducted any extensive independent investigation to verify their accuracy and completeness. However since the exploration work was carried out by individuals or companies that have professional designations of or equivalent to those of a Qualified Person in Canada, RNA believes that the data is reliable within industry norms.

RNA has not searched titles to the land holdings and has not independently verified the legal status of the ownership of the Property or the underlying agreements. Information provided in this report with respect to land holdings and legal status is that provided to RNA by KNX. RNA has been able to access and view the files containing original contracts, location maps, etc. of these properties and, having found no irregularities, is generally satisfied with the validity of the exploration rights. However, RNA has not conducted detailed investigations such as title searches, etc. that would be normally conducted by legal professionals. The status of the surface and mineral rights and related agreements is therefore not certified by RNA.

The information, conclusions contained herein are based on the information available to RNA at the time of preparation of this Report, assumptions, conditions and qualifications as set forth in the Report and data listed in the “References”.

KNX has warranted that a full disclosure of all material information in its possession or control has been made to RNA. Essex Minerals Inc. has agreed that neither it nor its associates will make any claim against RNA to recover any loss or damage suffered as a result of RNA’s reliance upon the information provided by KNX for use in the preparation of this Report. Essex Minerals Inc. has also indemnified RNA against any claim arising out of the assignment to prepare this Report, except where the claim arises as a result of any proved willful misconduct or negligence on the part of RNA. This indemnity is also applied to any consequential extension of work through queries, questions, public hearings or additional work required arising from RNA’s performance of the engagement.

Essex Minerals Inc. has reviewed draft copies of the Report for factual errors. Any changes made as a result of these reviews did not involve any alteration to the conclusions made. Hence, the statement 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 Report.

RNA reserves the right to, but will not be obligated to, revise this Report and conclusions thereto if additional information becomes known to RNA subsequent to the date of this report.

## 3.0 PROPERTY DESCRIPTION AND LOCATION

### 3.1. Mining Policy – Queensland

Mineral Resources in the Australian state of Queensland are administered by the Department of Natural Resources, Mines and Energy (“DNRME”). Resource authority obligations of the exploration permit holder are set out in the Mineral Resources Act 1989 (“the MRA”), with periodic amendments. The Mineral Resources Regulation 2013 (“MMR”) supports the Act and describes how the MRA’s requirements are to be carried out to ensure compliance of the exploration permit holder with the resource authority obligations.

The exploration permit (“EP”) are issued by the Queensland State Government under Chapter 4 of the MRA and Part 3 of the MMR. Electronic documents of both the MRA and MRR can be downloaded from the DNRME website ( the link is listed in the references at the end of this document).

Applications for EP’s are submitted online by using MyMinesOnline, or by written application and both require certification of identity of the applicant, which is then used for all subsequent interactions with the DNRME, such as submitting reports and payment of fees.

As part of the application for an EP the applicant is required to provide a number of supporting documents including a Development Plan or Work Program, Financial and Technical Capability statement, Environmental Authority (issued through the Department of Environment and Science) and Native Title documentation.

Exploration Permits for Minerals (“EPM”) are applied for and granted over blocks and sub-blocks. These blocks and sub-blocks have been approved by the chief executive in Block Identification Maps (BIM) Series B. These are identified by reference to the latitudes and longitudes defined in the Australian Geodetic Datum 1966 (AGD66). They are defined as follows

- each BIM has a unique name and contains 3456 blocks, which are numbered in sequence.
- each block is approximately 75 square km in area and each sub-block is approximately 3 square km in area - the exact size of the block depends on curvature of the earth.
- each block is divided into 25 sub-blocks, which are identified in alphabetical order (with the exception of the letter “i”).
- each block equals five minutes of latitude by five minutes of longitude and sub-block equals one minute of latitude by one minute of longitude.

### **3.2. Property and Agreements**

KNX has title to the following Queensland Mining tenements comprising five (5) Exploration Permits for Minerals (“EPM”) through its wholly owned subsidiary Ismins Pty Ltd (“Ismins”), the registered applicant or holder of the legal interest pursuant to the terms of the Minerals Resources Act 1989 (Qld). AMD Resources Limited (“AMD”), an Australian unlisted public company earned a twenty percent (20%) interest in the properties in 2018.

AMD commissioned an Independent Tenement Report on the Cumberland Properties, prepared by Hetherington Exploration & Mining Title Services (QLD) Pty Ltd in May 2018. The report is attached as Appendix 1, it covers in detail the current standing of the properties, fees, securities and expenditure commitments.

Recent variations to conditions of titles are set out in Appendix 2

The five (5) granted EPM’s are EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586. They are contiguous and adjacent to one another in the Georgetown District of North Queensland (Figure 2). The combined area of the tenements covers 257.15 square kilometres, comprising a total of 80 sub-blocks. KNX is in the process of relinquishing EPM 19017 (3 sub-blocks – 9.76 square kilometres) due to lack of prospectivity for economic mineralization.

RNA has accessed the Queensland Government QSpatial portal and downloaded the current Exploration Permits for Minerals dataset on Tuesday 28th April 2020 and can confirm that the EPM’s are as described in Appendix 1 and are as drawn on figure 2.

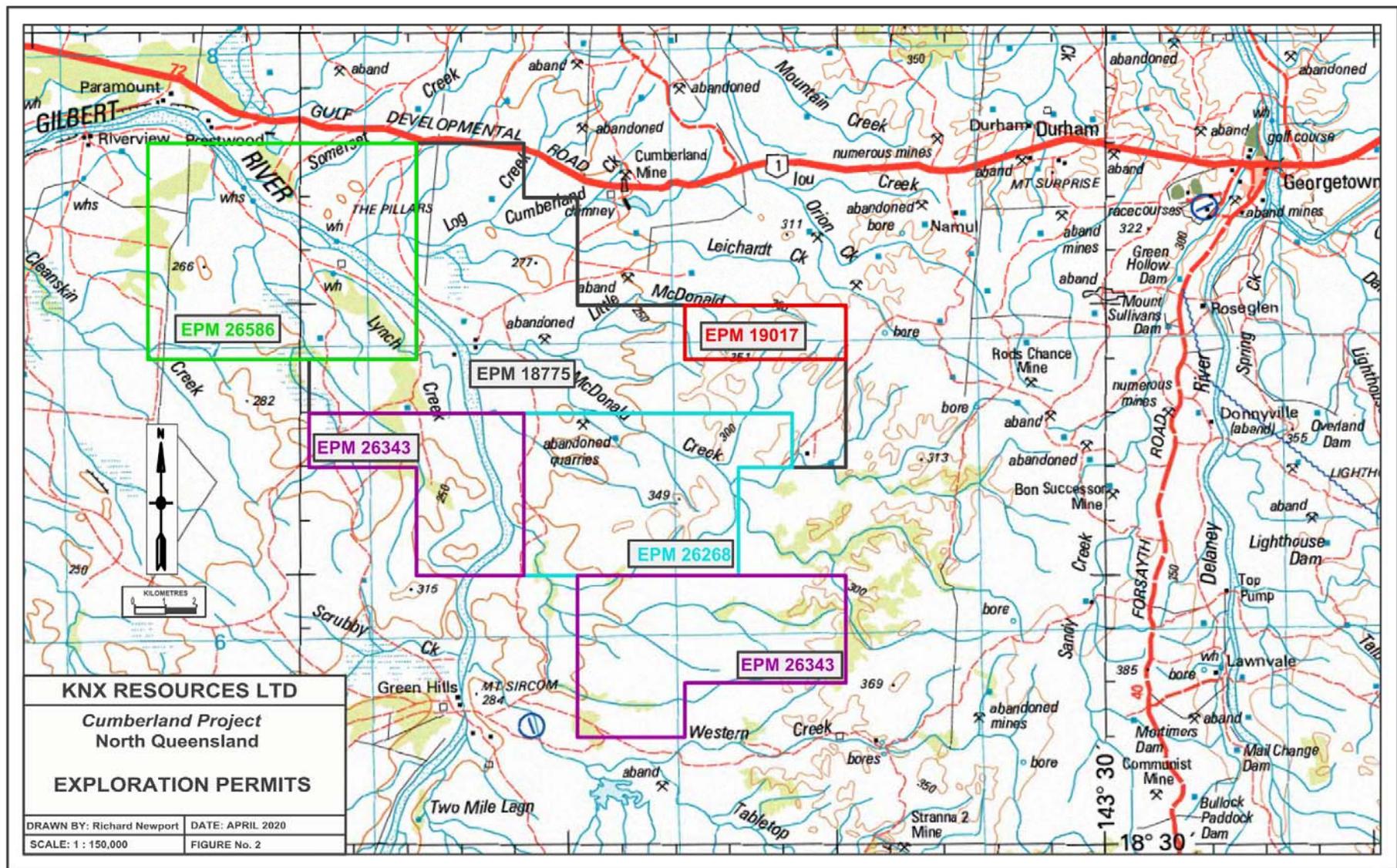


Figure 2 Exploration Permits

## 4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Cumberland Property tenements are centred at Latitude 18° 21' S; Longitude 143° 20' E, 25km WSW of Georgetown in North Queensland.

Access is via the all-weather Gulf Developmental Road that passes through Georgetown, linking Cairns – 380km to the east - and Normanton – 301km to the west (Figure 1).

An all-weather sealed airstrip is located at Georgetown (Figure 2).

The region has a tropical savannah climate (with high humidity and two seasons, the wet season (November to April) and the dry season (May to October). A tropical monsoon season occurs from December to March with doldrums occupy the transition periods during November and April. Winters are dry with average temperatures in the mid to high 20's°C.

The topography consists of rolling, low-level hills and flat river plains, dissected by the Gilbert and Etheridge rivers that drain northwards into the Gulf of Carpentaria. The vegetation is low stand eucalyptus woodland, scrub and savannah grasslands (Figure 3).



Figure 3 Typical Topography and Vegetation – Cumberland Property QLD

## 5.0 HISTORY

The Etheridge Goldfield at Georgetown, contains numerous mesothermal vein quartz-gold-base-metal sulphide deposits from which some 20t of Au-Ag bullion has been extracted. These deposits, which are not within the Property tenements, are mostly hosted by Proterozoic granitic and metamorphic rocks. The estimated age of the mineralizing event is 426-398 Ma (Siluro-Devonian), which is similar in age to the Charters Towers gold deposits.

During the 19<sup>th</sup> Century, early prospectors found many of the outcropping gold and base metal veins within the Georgetown area and worked these prospects for small production. The largest of these is the Cumberland Mine (1,580kg at 37g/t produced over a five-year period in the 19<sup>th</sup> century), which occurs just beyond the northern boundary of the tenements and is the largest quartz vein deposit associated with quartz feldspar porphyry and rhyolite in the Georgetown district.

The silver-gold-copper prospects on Cumberland are associated with the altered and mineralised fault/vein structures that are in close proximity to the high level felsic intrusives. These high level intrusive systems are likely to have significant stockwork veins and breccia pipes associated with the sub-volcanic dykes and plugs at depth. Examples of the deposit targets held by other companies in this region are Kidston, Red Dome and Mount Leyshon. Several large fault structures are also present within the tenements, and these also host significant gold-silver-base metal occurrences that are probably related to the high level Permo-Carboniferous intrusives.

In modern times, many companies have explored in the Georgetown region for gold, base metals and uranium, and some exploration has taken place for stratabound base metals and intrusive related tungsten mineralisation. The more significant work in the Cumberland Property area has been undertaken by Battle Mountain (Australia) Inc., Kidston Gold Mines Ltd and Mega Georgetown Pty. Ltd, before KNX subsidiary Ismins Pty Ltd lodged the current EPM's.

The details of historical exploration by previous operators on the Cumberland Property are included as clearly identifiable sections within Chapter 9 Exploration of this report.

**1970 – 1972 Bridge Minerals Pty. Ltd (“BML”)** explored the Georgetown region, including the Cumberland Property with regional stream sediment and follow up rock chip geochemical surveys.

**1987 – 1989 Battle Mountain (Australia) Inc (“BMA”)** explored the southern half of the Cumberland Property with detailed BCL stream sampling, following up anomalous gold areas with rock chip sampling and limited mapping.

**1991 – 1993 Kidston Gold Mines Ltd (“KGM”)** conducted exploration on their tenements in the Cumberland Property area, finding the Log Creek Prospect from anomalous stream samples (Au, Cu & Pb) draining a 2km long ridge of altered micro-granite porphyry. KGM followed up with soil and rock chip sampling, mapping, ground magnetics, gradient and dipole-dipole IP/Resistivity surveys. At Log Creek, five drill holes were used to test soil and IP anomalies. Holes were a combination of RC & diamond tails, and some had down-hole IP surveys done.

**2006 – 2007 Mega Georgetown Pty Ltd (“MGP”)** acquired airborne low level magnetic and radiometric geophysics over a large area in the Georgetown district, flying 40,270 line kilometres. Although the survey covered the Cumberland Property, no follow-up work was carried out in the area.

**2013 – Present Ismins Pty Ltd (“ISM”)** commenced exploration after the granting of EPM 18775 and 19017, conducting reconnaissance exploration to confirm the high-grade assays of gold and silver recorded from previous explorers (Spencer, 2013). ISM continued to carry out detailed mapping, rock chip and soil geochemistry and acquisition of LiDAR geophysics.

## 6.0 GEOLOGICAL SETTING

### 6.1. Paleotectonic Setting and Temporal Range of the North Queensland Region

The North Queensland region (Figure 4) is made up of a Palaeoproterozoic to Mesoproterozoic cratonic basement, exposed in the Etheridge Province (containing the sub-provinces of Forsayth, Croydon, Savannah and Yambo). It represents the eastern remnant margin of the Proterozoic in Australian after the breakup (ca. 600-515Ma) of the Neoproterozoic Rodinia continent (Cawood, 2005).

The Etheridge Province is bounded to the east by the accretionary North Queensland Orogen, representing the northern part of the largely Paleozoic Tasman Orogen, which dominates eastern Australia, and is generally thought to have been produced by a long-lived accretionary convergent margin (Cawood, 2005; Collins and Richards, 2008; Glen, 2005). It consists of the Hodgkinson Province, containing the Broken River sub-province and may contain the Charters Towers and Barnard Provinces.

In the Early Carboniferous to latest Permian (ca 350-250 Ma) eastern Australia, including northern Queensland was dominated by extension and rifting, producing intracratonic basins and extensive magmatism. The magmatism is termed the Kennedy Association, consisting of widespread and voluminous extrusive and intrusive igneous rocks. The geochemical composition of the igneous rocks is dominantly felsic.

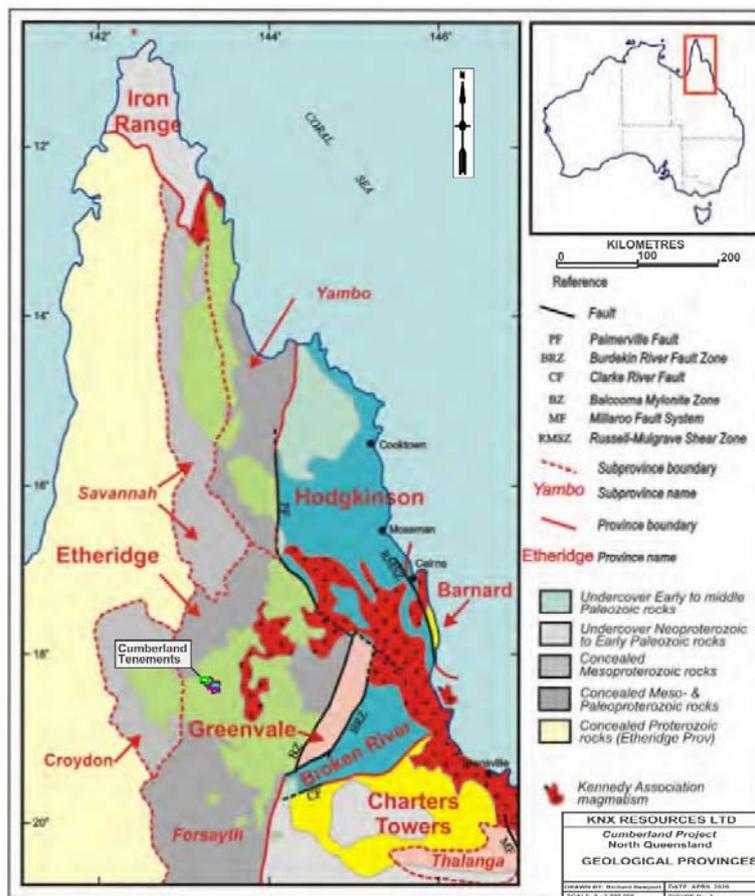


Figure 4 Geological Provinces North Queensland (modified from Kositcin, et al 2009)



### **6.3. Property Geology**

Palaeo-Mesoproterozoic age metasediments and metabasic rocks, intruded by Mesoproterozoic granites, form the basement rocks in the Cumberland Tenements (Figure 6).

The basement rocks have been intruded by Siluro-Devonian granites that crop out to the east of the Cumberland tenements, and are thought to underlie and have given rise to the Etheridge Goldfield at Georgetown, including the Cumberland Mine..

Permo-Carboniferous acid intrusives and their related sub-aerial volcanics of the Cumberland Range Volcanics cover much of the southern and western portions of the tenements. They form a partially preserved collapsed caldera structure in the south with more deeply eroded (probably older) dykes of high level (sub- volcanic) intrusives of microgranites and rhyolites to the north and west. These dykes host later rhyolite dykes and breccia veins and pipes.

### **6.4. Prospects**

The gold-silver-copper prospects on Cumberland are associated with the altered and mineralised fault/vein structures that are in close proximity to the high level felsic intrusives. These high level intrusive systems are likely to have significant stockwork veins and breccia pipes associated with the sub-volcanic dykes and plugs at depth.

Several large fault structures are also present within the tenement, and these also host significant gold-silver-base metal mineralisation

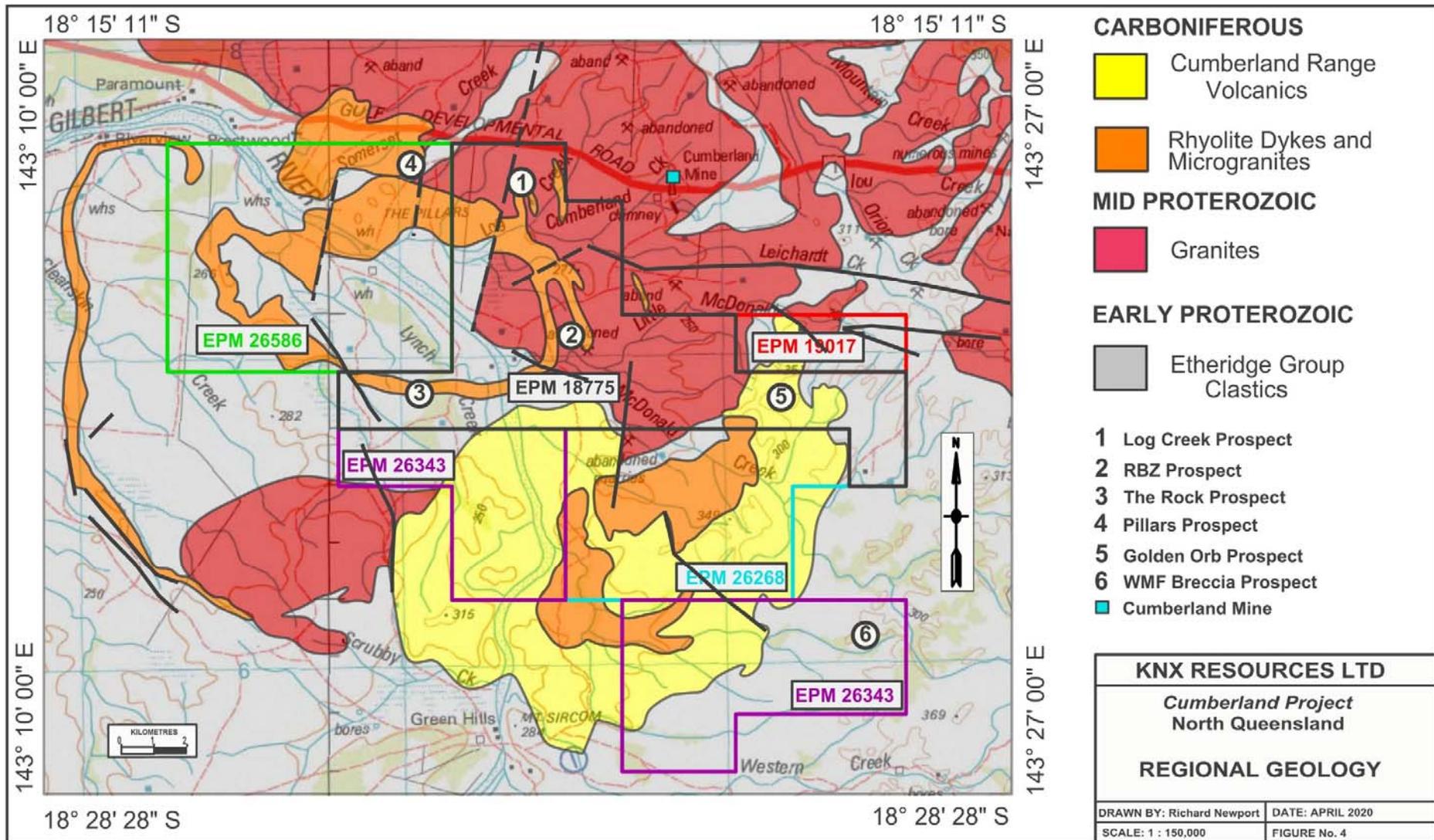


Figure 6 Simplified Geology of the Cumberland Property – Showing Tenement Boundaries & Prospects

## 7.0 DEPOSIT TYPES

### 7.1. Intrusion Related Gold Silver Deposits

The principal deposit types targeted in the Cumberland Property are intrusion related gold and silver mineralization. The style and depth of formation of gold-silver deposits approaching the metal bearing igneous system varies from distal (epithermal) through intermediate (porphyry) to proximal (plutonic). These deposits can be accompanied by economic concentrations of gold, silver, copper, base and other valuable metals. Epithermal porphyry and plutonic ore deposits develop in response to plate tectonic processes, typically as partial melting related to subduction gives rise to magmatism mainly within compressional and locally transpressional, linear magmatic arcs extending into the back arc extensional settings. Magmatic arcs are distinguished between island arcs underpinned by oceanic crust and continental arcs formed on continental plate margins (Pirajno 1992). Island arc igneous rocks tend to be intermediate to felsic in composition, whereas continental arcs and back arc igneous rocks tend to be more fractionated and felsic in composition (Figure 7).

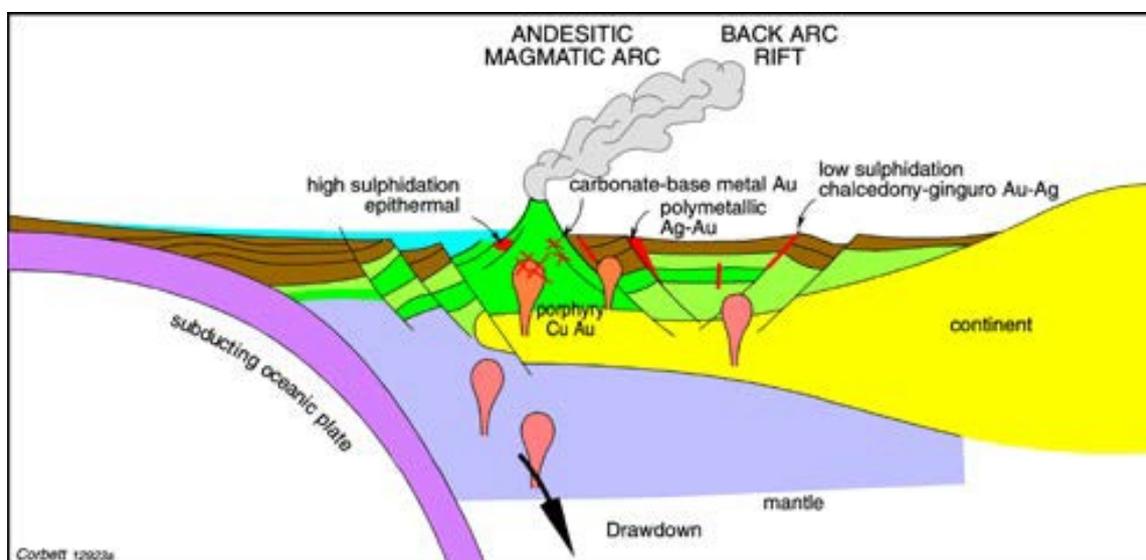


Figure 7 Conceptual cross section through a subduction zone, magmatic arc and back arc showing the settings of epithermal and porphyry deposit formation (After Corbett 2018)

These epithermal porphyry and plutonic ore deposit categories can be further broken down and described as follows;

#### Epithermal Systems

Epithermal systems are split into high and low sulphidation systems, based on two very different physical and chemical evolving fluids. They commonly occur between surface and 2 kilometres depth above an observed or interpreted igneous intrusion (Figure 8).

High sulphidation systems can be considered as a closed system with relatively low interaction with surrounding rocks and their contained connate and meteoric waters, as they rise from the magma to the point of deposition. As they rise, they become more acidic in nature as the high sulphur content ( $\text{SO}_2$ ) exsolves from the fluid to produce acid ( $\text{H}_2\text{SO}_4$ ), and hydrogen sulphide ( $\text{H}_2\text{S}$ ) in a predominantly saline fluid (Rye et al., 1992). Wall rock alteration, ore and gangue mineralogy reflect the acid nature of the high sulphidation system with zoned advanced argillic, alunite, kaolin and illite alteration minerals, accompanying abundant pyrite, enargite, covellite, chalcocite, bornite and chalcopyrite. Economic metal concentration tends to be gold ( $\text{Au}$ ) > silver and copper ( $\text{Ag}+\text{Cu}$ ).

Economic metal recovery tends to be better in the oxide zone, becoming refractory at depth (Corbett & Leach 1998).

Low sulphidation systems can be considered as an open system with relatively higher interaction with surrounding rocks, and their contained connate and meteoric waters as they rise from the magma to the point of deposition. The low sulphidation fluids are largely neutral magmatic-connate-meteoric in composition, consisting of (CO<sub>2</sub>) and chlorine radical (Cl) with lower concentrations of sulphur dioxide (SO<sub>2</sub>) and hydrogen sulphide (H<sub>2</sub>S). Wall rock alteration, ore and gangue mineralogy reflect the neutral nature of the low sulphidation systems with early propylitic and zoned argillic, illite, quartz, carbonate and pyrite alteration minerals, accompanying low concentration of pyrite (< 5%), sphalerite, galena, chalcopyrite and silver (Ag) sulphosalts. Economic metal concentration tends to be gold (Au) > silver (Ag) in magmatic arc settings and the reverse in extensional back arc settings. Economic metal recovery is good but tends to be poorer when gold (Au) is bound up in fine grained arsenic (As) bearing pyrite. (Corbett & Leach 1998).

The low sulphide system is further subdivided into two sub-systems based on the modification of their hydrothermal fluid composition with the wall rocks and the connate and meteoric water. They start off as neutral-chloride fluids at the magma source and evolve as they ascend and interact with surrounding rocks and their contained connate and meteoric waters, producing two types of fluid end members, bicarbonate and acid sulphate.

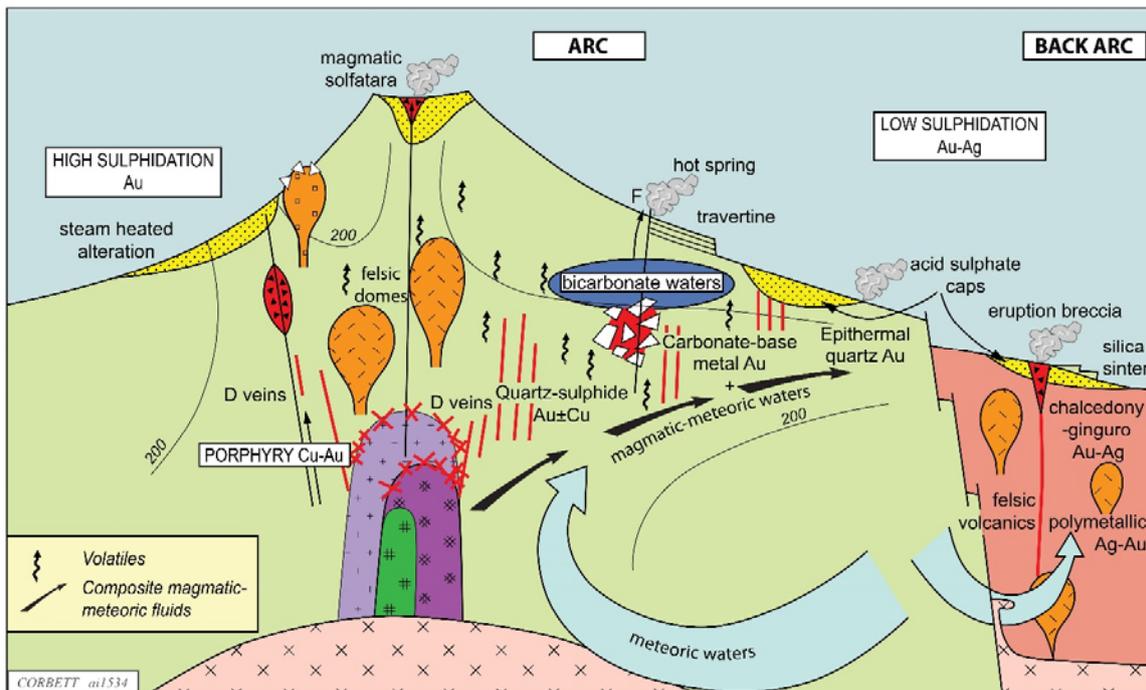


Figure 8 Conceptual cross section showing the magmatic arc and back arc geothermal systems displaying the different epithermal systems and porphyry deposit formation (After Corbett 2018)

### Porphyry Copper

The term porphyry copper deposit in current usage refers to the porphyritic texture of predominantly calc-alkaline and the less common alkaline intrusive igneous rocks, which host dominantly copper (Cu) with or without economic concentrations of molybdenum (Mo) and gold (Au) and less commonly silver (Ag) mineralization. These metals are primarily contained in sulphides comprising pyrite, chalcopyrite bornite and molybdenite, that occur as disseminations, in breccia fill, stockwork and sheeted quartz-sulphide veins. The best mineralization may occur in the upper margins of the

intrusions or as vertically attenuated spine like stocks and apophyses, derived from deeper magmatic sources, rising to a depth of 2-4 kilometres below the palaeosurface. Porphyry copper deposits typically display zoned hydrothermal alteration and vein styles, but better grade deposits are more likely to be associated with multiple intrusive events, producing polyphase mineralization, resulting in complex zoned relationships of alteration and veining.

## Skarns

Skarn deposits are the result of metasomatic alteration of carbonate bearing wall rocks affected by contact metamorphism that has resulted from the intrusion of igneous rocks. This style of mineralization is commonly associated with porphyry copper – gold (Cu-Au) intrusions, sharing the same mineralizing fluids that gave rise to the porphyry Cu-Au deposits. These deposits are typically zoned from proximal copper rich to distal gold rich mineralization. This zonation is similar to the porphyry-epithermal paragenesis.

## 7.2. The Cumberland Property prospects compared to Intrusion Au - Ag Deposit Models

There are six (6) major prospects in the Cumberland Property area (Figure 6), all of which show characteristics of epithermal to porphyry breccia association and possibly wall rock porphyry mineralization (Figure 9).

1. Log Creek Prospect; Permo-Carboniferous quartz feldspar porphyry microgranite displaying high temperature sericite alteration. Subsequent structural events, have contributed to Emplacement of rhyolite dykes which are variously altered and contain a high background of volatile elements accompanied by low temperature epithermal mineralisation which has overprinted the earlier phase sericite alteration event. Log Creek is considered to be a multiphase intrusive event in an epithermal back arc setting.
2. RBZ Prospect; Is a series of hydrothermal breccia zones associated with Permo-Carboniferous quartz feldspar porphyry dykes, representing a similar but shallower continuation of the Log Creek alteration system. RBZ is considered to be a multiphase breccia event in an epithermal back arc setting.
3. The Rock Prospect; Permo-Carboniferous quartz feldspar porphyry microgranite intrudes into Proterozoic Lane Creek sediments consisting of fine grained sediments variably contact metamorphosed and extensively altered to sericite and clay with associated multi-phase quartz veining. The Rock is considered to be in a plutonic wall rock contact setting.
4. Pillars Prospect; Permo-Carboniferous quartz feldspar porphyry microgranite containing later, low temperature quartz veins and sulphides associated with brecciated porphyry in a linear structural zone. Pillars is considered to be similar to the RBZ in it's setting.
5. Golden Orb Prospect: Permo-Carboniferous rhyolitic flow dome intrusive into rhyolitic volcanic pile associated with silicified jasperoidal breccias containing chalcedonic veins. Golden Orb is considered to be a shallow epithermal event in a back arc setting.
6. WMF Breccia Prospect (Wait for Me); Permo-Carboniferous brecciation, possibly confined to a pipe structure, associated with felsic intrusives and hydrothermal fluids, that have introduced quartz-carbonate veining and sulphide mineralisation, along with variable alteration. WMF is considered to be multiphase breccia pipe event in an epithermal back arc setting.

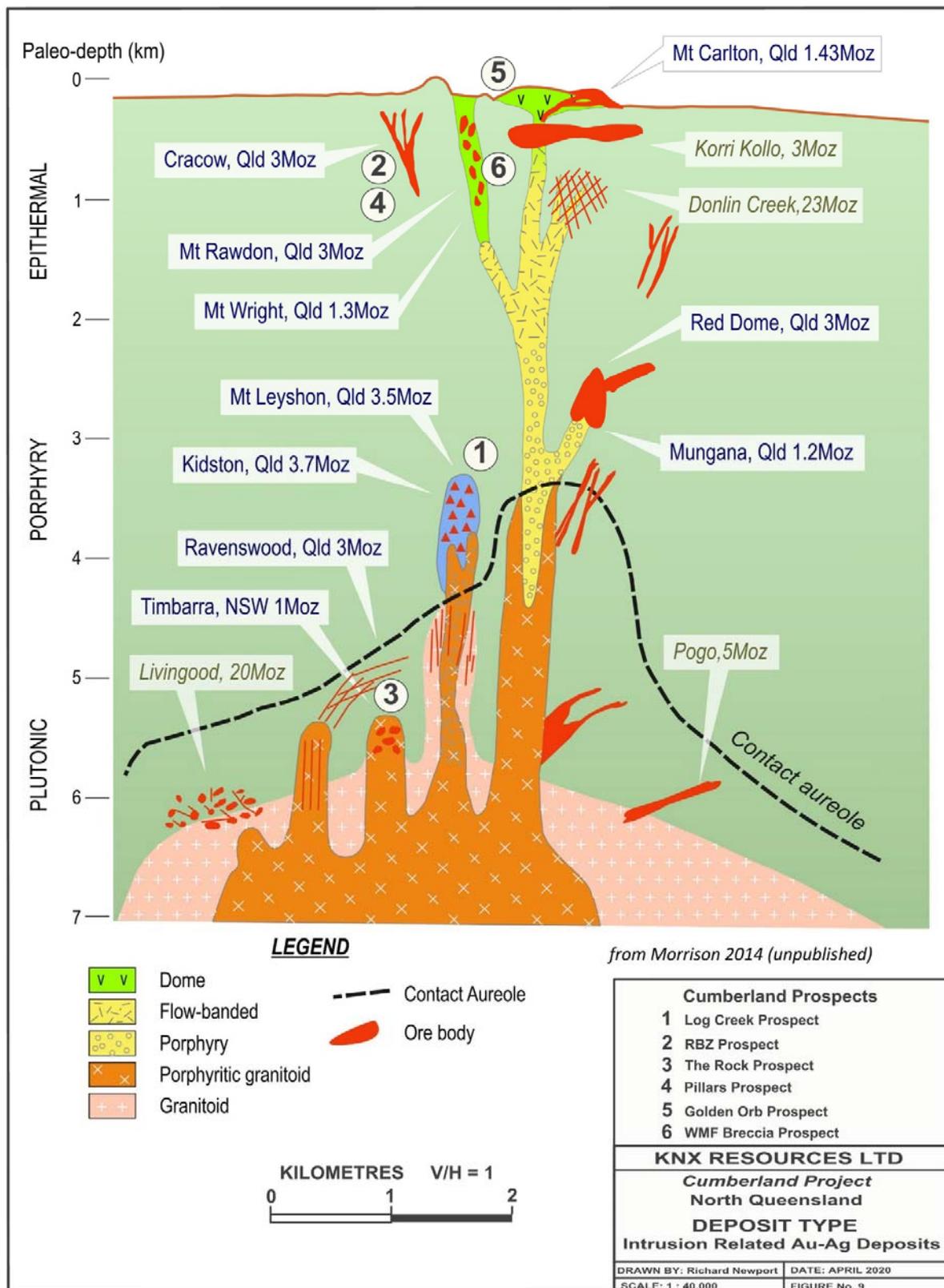


Figure 9 Conceptual cross section showing the Intrusive Related Gold – Silver Mineralization Model, with a number of Eastern Australian deposits and the Cumberland Property Prospects superimposed. (Modified from Morrison, G. W., 2014 Unpublished In Lisitsin et al 2017)

## 8.0 MINERALIZATION

Mineralization occurring on the Cumberland Property are as identified in Chapter 7 Deposit Types, Section 7.2. The Cumberland Property prospects compared to Intrusion Au - Ag Deposit Models.

RNA completed site visits of all the six (6) prospects listed in this report in June 2018 and May 2019 as part of an Independent review of KNX's Cumberland property. During the visits RNA collected samples for assay and reviewed sample procedure of KNX for rock and soil sampling, concluding that the sampling practice Employed by KNX was at a level of industry standard for this form of sampling.

The locations of all six (6) prospects are displayed in Figure 6 above, and discussed in more detail in the following Chapter 9 Exploration.

### 8.1 Log Creek

Samples were collected from brecciated rhyolite dykes, that exhibited low temperature epithermal mineralisation. These breccias have been silicified with strong iron staining observed between breccia fragments. Assays of rock chip samples returned a highest value of Au 0.18 g/t Ag 65 g/t (Figure 10)



Figure 10 Strongly brecciated rhyolite at Log Creek.

## 8.2 RBZ

The hydrothermal breccia zones of the RBZ prospect display early phase quartz cutting phyllic altered granite clast, followed by later stage silica crystallized around clast associated with gossanous voids possibly after coarse grained arsenopyrite, third stage mineralisation associated with ginguro banding of fine grained sulphide is associated with colloform silica. The ginguro banded mineralization has been subsequently disrupted by veins of clear quartz. Assay of rock chips from the sample shown in Figure 11, from the RBZ prospect. returned values of Au 8.87 g/t Ag 529 g/t.



Figure 11. RBZ multiphase hydrothermal silica veining in breccias.

### 8.3 The Rock

Permo-Carboniferous quartz feldspar porphyry microgranite and associated multi-phase quartz and quartz carbonate veining has intruded into Proterozoic Lane Creek grey carbonaceous siltstone. The siltstones are variably contact metamorphosed and extensively altered to sericite and clay. The alteration of the plutonic wall rock contact setting extends for approximately 1 square kilometre. Rock chips within the alteration zone returned assays of up to 4 g/t Au and 237 g/t Ag with high base metals. Figure 12 displays strongly clay altered quartz vein sample resting on top of an outcrop of the Lane Creek siltstone. Note the thin ( 2 cm ) quartz veins to the right of the sample. These are quite common and pervasive close to the contact with the quartz feldspar porphyry intrusive.



Figure 12. The Rock prospect, grey carbonaceous siltstone & thin carbonate quartz veins

## 8.4 Pillars

Permo-Carboniferous quartz feldspar porphyry microgranite containing later, low temperature quartz veins and sulphides associated with brecciated porphyry in a linear structural zone. Rock chip sampling of the veins overall returned low results with the exception of two samples out of twenty six, one of which returned assay values of Au 2.94g/t and Ag 2.3g/t (Figure 13). Four (4) kilometres to the west is the recently discovered Anomaly 79 in a similar setting to the Pillars returned a silver assay of 500g/t Ag.



Figure 13. Vein breccia consisting of well rounded fragments of altered QFP in a matrix of cherty silica with approximately 1 % sulphides as fine grained pyrite. 738811 7974952.

## 8.5 Golden Orb

Permo-Carboniferous rhyolitic flow dome intrusive into rhyolitic volcanic pile associated with silicified jasperoidal breccias containing chalcedonic veins. This prospect is at a very early stage of evaluation and although it's rock types and geological setting look promising, initial rock chip sampling returned low assay values of Au 0.1g/t Ag 0.5g/t (Figure 14).



Figure 14. Silicified breccia cut by open space epithermal silica and jasperoidal silica patches in the matrix.

## 8.6 WFM

Permo-Carboniferous brecciation of volcanics and sediments, possibly confined to a pipe structure, associated with felsic intrusives and hydrothermal fluids. The fluids have introduced quartz-carbonate veining and sulphide mineralisation, along with variable alteration. Initial rock chip sampling returned the highest assay of Au 0.17g/t Ag 3.6g/t (Figure 15).



Figure 15. Multi-lithological breccia cut by gossanous veins.

## 9.0 EXPLORATION

Modern exploration activities have been conducted on the Cumberland Property since the early 1980's for gold, base metals and uranium, and some exploration has taken place for stratabound base metals and intrusive related tungsten mineralisation. The more significant work in the Cumberland Property area has been undertaken by Bridge Minerals Pty Ltd, Battle Mountain (Australia) Inc., Kidston Gold Mines Ltd and Mega Georgetown Pty. Ltd, before KNX subsidiary Ismins Pty Ltd lodged the current EPM's. This work is described in the following sections of this chapter and Chapter 10 Drilling of this report.

**9.1 1970 – 1972 Bridge Minerals Pty. Ltd. (“BML”)** explored A to P 813M situated in the Georgetown region of North Queensland. Their Prestwood block covered almost all of the Cumberland Property. BML undertook regional geochemical sampling consisting of nine hundred and fifty nine (959) stream sediment samples (approximately 1 sample per square kilometre), analysed for copper (Cu), Lead (Pb), Zinc (Zn) and Molybdenum (Mo). Anomalous results were recorded near known historic mining activity. Follow up rock chip program focused on the stream sediment anomalies and the historic mine site which were also geologically mapped. BML concluded that there was insufficient encouragement to continue exploration on the tenement (Wright et al 1972).

**9.2 1987 – 1989 Battle Mountain (Australia) Inc (“BMA”)** explored A to P 5065M “Cumberland Range” that covers the southern half of the Cumberland Property (Cussen et al, 1989). BMA undertook detailed stream sampling (325 samples – approximately 1 sample per kilometre) for bulk cyanide leach (BCL) and heavy mineral concentrate (HMC). The BCL samples were bottle rolled for 24 hours then assayed for gold (Au) and silver (Ag). HMC samples were weighed and fire assayed for gold. The distribution of the silver and arsenic stream anomalies in Figure 16 shows that it is likely that there is a strong north to northwest structural system controlling the late stage mineralization associated with Carboniferous sub-aerial volcanism. There is a second, weaker east trend that may be re-activated older faults that are similar to the major Big Wonder Fault to the north. BMA found three occurrences of gold veining near the confluence of McDonald and Little McDonald Creeks. The southern vein of these two occurrences are the old Jesse Belle and Rose Gold Mines. The third gold vein is located near the junction of the two main tributaries of Little McDonald Creek (Figure 17) BMA collected a total of 24 rock chip samples from three localities on these veins. The average gold and silver assays for all 24 rock chip samples were 44g/t Au and 139g/t Ag. The maximum assays from these samples were 370g/t Au 840g/t Ag.

Mapping at the time indicated the zone is trending NW-SE, which is at odds with the previously noted northerly trend for the Jesse Bell mine. At Little McDonald Creek, quartz-pyrite-hematite mineralisation extends for 160m and is associated with a strongly sheared and brecciated granitoid of the Forsyth Granite. Fragments of rhyolitic sub- volcanic or strongly sheared granitoid occur as minor clasts in the breccia and mineralised zones. A series of small pits and costeans were sampled, with the highest gold results corresponding to quartz-pyrite-arsenopyrite-jarosite veins. It is significant that both the McDonald and Little McDonald Creek Prospects record several of the high gold assay results from samples described by BMA as altered and sheared wall-rock or thin stockwork veins in wall-rock. This indicates the possibility for broader zones of gold mineralisation, rather than only being confined to very narrow quartz-sulphide veins. Also, the description by BMA of gold mineralisation in rhyolite dykes is very significant; as it indicates the gold mineralisation is related to Permo-Carboniferous age sub-volcanic intrusions.

The gold, silver and arsenic stream geochemical anomalies are plotted up over the simplified geology in Figure 16.

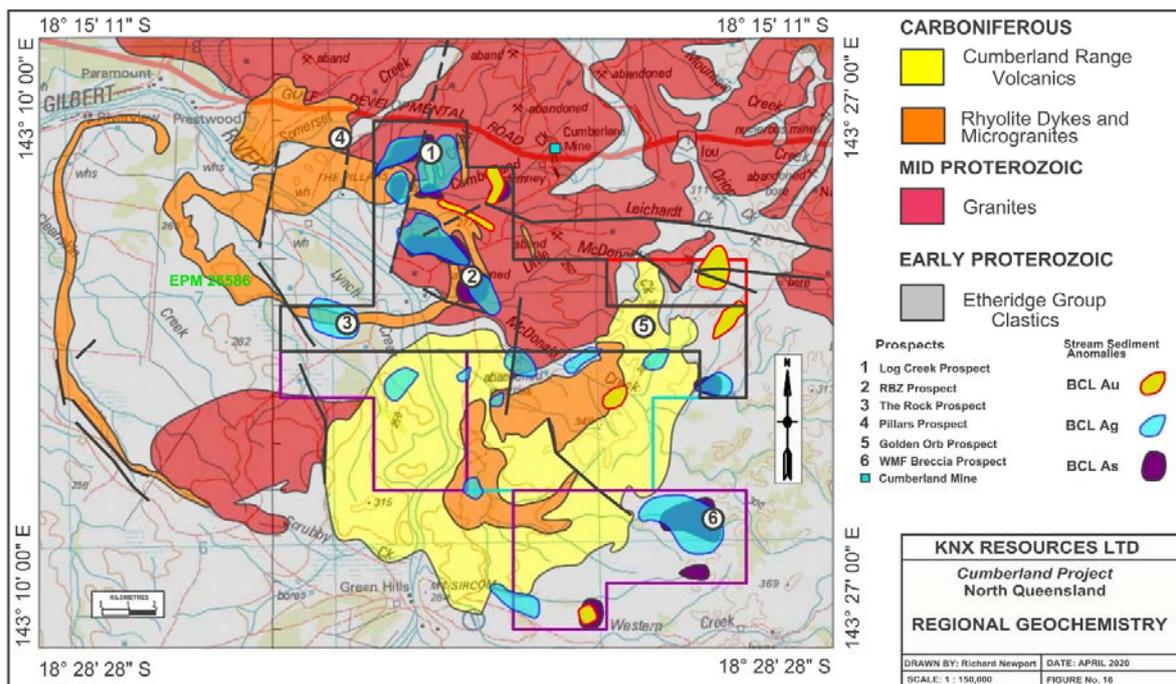


Figure 16. Simplified geological map from figure 6 showing BCA gold (Au), Silver (Ag) and Arsenic (As) stream sediment anomalies.

**9.3 1995 – 2000 Kidston Gold Mines Ltd (“KGM”)** conducted exploration on their tenements in the northwestern portion of the Cumberland Property area, finding the Log Creek Prospect from anomalous stream samples (Au, Cu & Pb) draining a 2km long ridge of altered micro-granite porphyry (Figure 17). KGM followed up with soil and rock chip sampling, mapping, ground magnetics, gradient and dipole-dipole IP/Resistivity surveys. At Log Creek, five drill holes were used to test soil and IP anomalies that are reviewed in the following Chapter 10 of this report. Holes were a combination of RC & diamond tails, and some had down-hole IP surveys done ( Ricketts et al 1995, \_1996,\_1997, Sparks 1998a, 1998b, 2000).

A soil geochemistry program was conducted over the Log Creek-RBZ prospect using a 100 by 100m grid and assaying for Au, Cu, Pb, Zn and As (Figure 17). Results were: anomalous in precious and base metals, following the general trend of alteration. Anomalous gold marked in yellow on Figure 17 returned up to 592 ppb. In the rock chip sampling program, 6 out of 22 rock samples returned >0.5g/t Au with a high of 2.15g/t Au. The ground magnetic program returned a magnetic low anomaly, centred on the historic Victory South pit (60nT low anomaly over 500 by 150 metre zone coinciding with gold in soil anomaly). This was interpreted to be due to magnetite destruction during alteration.

A total of 28 line-km of gradient and dipole-dipole array IP was recorded over the Log Creek – RBZ prospects. The survey area (marked in light blue) coincided with the KGM soil grid. Three linear NS chargeability zones were identified coinciding with mapped alteration.

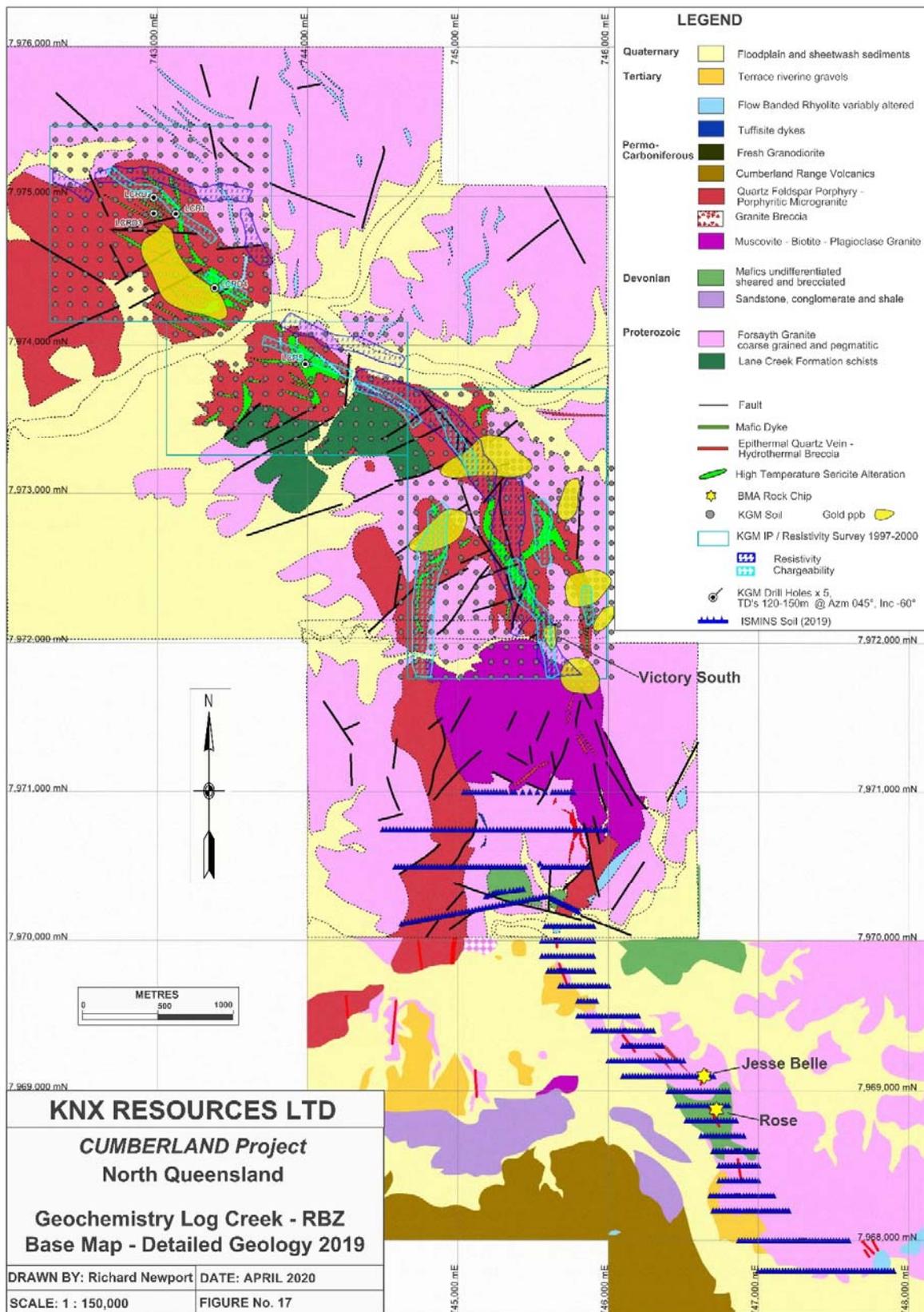


Figure 17. Detailed 2019 geological map showing BCA, KGM & Ismins geochemistry programs

**9.4 2006 – 2007 Mega Georgetown Pty Ltd (“MGP”)** acquired a detailed (100m line spacing), airborne low level magnetic and radiometric geophysical survey over a large area in the Georgetown district, flying 40,270 line kilometres. Although the survey covered the Cumberland Property, no follow-up work was carried out in the area.

**Regional Geophysics** acquired by MGP in 2007 covering the Cumberland Property was extracted, processed and interpreted to provide a regional structural context to the identified prospects within the property (Figure 18).

The main structural lineaments derived from the aeromagnetics are as follows

- A regional major NW structure which bisects all geological terrains not noted on published maps. ISM have termed this structure the Gilbert River Transfer Structure (GRTS). This has localised a series of magnetic highs in the NW one of which is close to The Rock Prospect.
- Subsidiary NW structures which run parallel to the GRTS
- NE linears which transect Proterozoic metasediments to the east of the Cumberland Range Volcanics.
- The Cumberland Range Volcanics appear to structure bounded in the west by a NNE structure.
- EW structures which appear to be early and have been disrupted by later structures.
- Apparent low magnetic response of the Prestwood Microgranite that has been interpreted as a ring dyke.

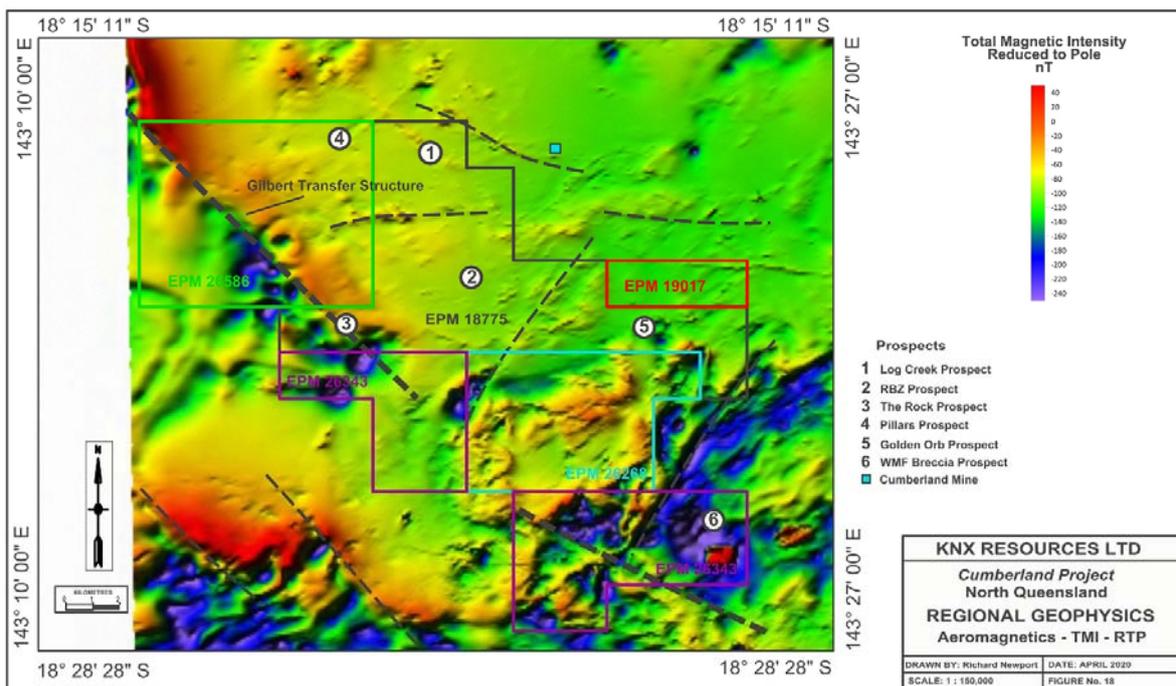


Figure 18. Regional Aeromagnetic TMI Reduced to Pole derived from MGP 2007

**9.5 2012 – Present Ismins Pty Ltd (“ISM”)** commenced exploration after the granting of EPM 18775 and 19017, conducting reconnaissance exploration to confirm the high-grade assays of gold and silver recorded from previous explorers (Spencer, 2013). ISM continued to carry out detailed mapping, rock chip and soil geochemistry and acquisition of LiDAR geophysics. Previous staged exploration from initial reconnaissance to detailed geochemical sampling and mapping, in combination with interpretation of the MGP magnetics and radiometrics, coupled with structural geology interpretation from the LiDAR, has allowed ISM to focus on key areas of interest (Spencer 2020).

The key points gained from ISM exploration are:

- Regional association of Ag/As stream sediment geochemistry and the lack of follow up of anomalism by previous operators
- Recognition of epithermal style mineralisation associated with significant surface values spatially associated with the interpreted Permo-Carboniferous intrusives.
- Recognition of high level epithermal veins associated with the Permo-Carboniferous Cumberland Volcanics
- Interpretation of MGP magnetic and radiometric data with respect to the identified prospects and regional structure.
- Acquisition of Lidar leading to a detailed understanding of the structure and lithological association of the observed surface mineralisation.

**9.5.1 LiDAR Digital Terrain Survey** acquired by ISM in 2018 covering the Cumberland Property was commissioned in order to provide a detailed digital terrain model on which to interpret regional and detailed structural geology with respect to the identified prospects within the property (Figure 19).

ISM reported that the LiDAR data greatly assisted in the subsequent detailed mapping programs carried out on the prospects within the property (Spencer 2020).

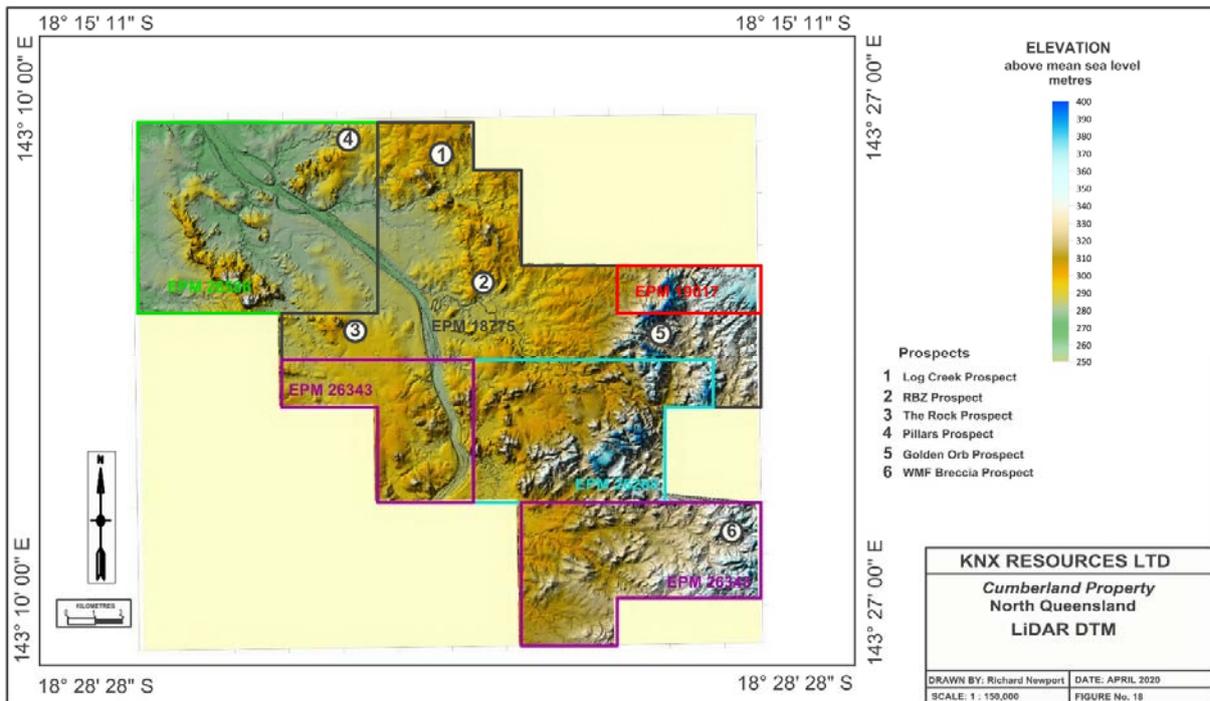


Figure 19. Cumberland Property 2018 LiDAR Digital Terrain Model

There are six (6) major prospects identified in the Cumberland Property area (marked from 1 to 6 in

Figures 16, 18 & 19), all of which show characteristics of epithermal to porphyry breccia association and possibly wall rock porphyry mineralization (Figure 9).

**9.5.2 Log Creek Prospect (1)** is a Permo-Carboniferous quartz feldspar porphyry microgranite displaying high temperature sericite alteration. Subsequent structural events, have contributed to Emplacement of later rhyolite dykes which are variously altered and contain a high background of volatile elements accompanied by low temperature epithermal mineralisation which has overprinted the earlier phase sericite alteration event. Log Creek is considered to be a multiphase intrusive event in an epithermal back arc setting.

Detailed analysis of KGM's exploration of the Log Creek Prospect (Prospect [1] in Figure 16, Figure 17 and Figure 20) was undertaken by ISM, identifying the mapped units, alteration, mineralization, drill hole collars and assessment of the exploration potential of the system from Log Creek to Victory South.

KGM defined a broad northwest trending gold in soil anomaly that included the historic Victory South workings that exhibits the same trend as the geological units. A northeasterly trend can also be seen corresponding to structural breaks in the mapped units.

The KGM Resistivity – IP surveys demonstrated a similar trend, with a notable exception being the chargeability anomaly following the western contact between the quartz feldspar porphyry and the Proterozoic granite.

KGM drilled five holes to the northeast into the resistivity-IP anomaly (results of which are discussed in the following chapter 10).

Sampling by ISM of the northwest trending quartz veins and altered rhyolites at Log Creek contained weakly anomalous gold, weak to moderately anomalous silver and strongly anomalous lead and arsenic, consistent of a mineralizing event with an epithermal signature.

Victory South returned similar results, but a late stage, northeast trending quartz vein returned values of 72.8 g/t Au, 101 g/t Ag, 2,000ppm Cu, 8.9% Pb, 7,700ppm Zn and 1,720ppm As.

Considering that KGM drilled to the northeast, focusing on the northwest trending alteration, it is very likely that they did not test the later stage northeast trend. It is also apparent that KGM drilled the DC/IP anomaly rather than modest gold anomaly that occurs to the southwest behind the drill collars.

ISM concluded that the Log Creek - Victory South prospect appears to be under drilled.

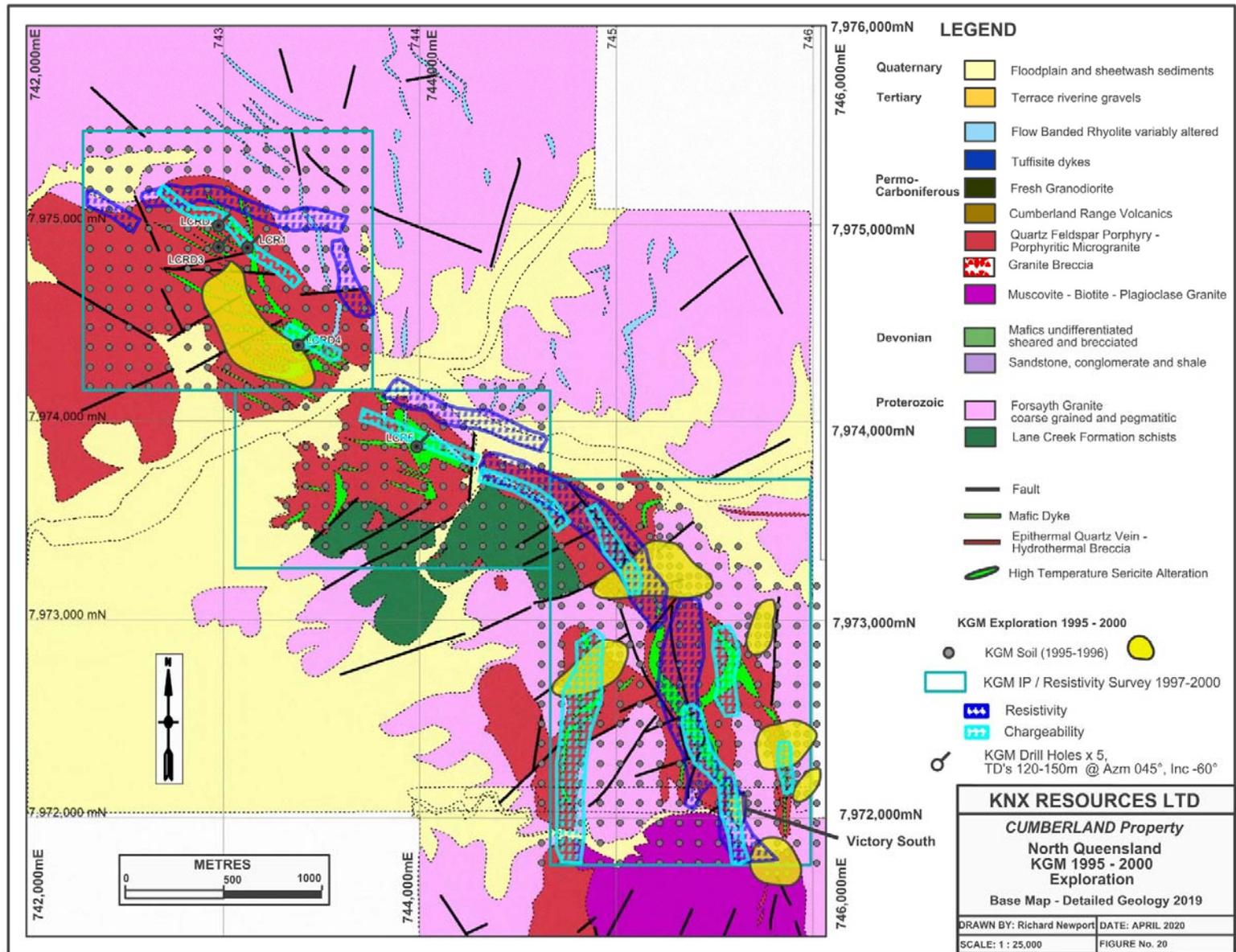


Figure 20. Cumberland Property 2019 Log Creek Detailed Geology with KGM Exploration 1995 - 2000

**9.5.3 RBZ Prospect (2);** Is a series of hydrothermal breccia zones associated with Permo-Carboniferous quartz feldspar porphyry dykes, representing a similar but shallower continuation of the Log Creek alteration system. RBZ is considered to be a multiphase breccia event in an epithermal back arc setting.

The RBZ is currently defined as occupying a 2.5 kilometre long structural zone which trends to the northwest from south of the Rose mine to MacDonald Creek, where it is dislocated by a north east fault zone that is occupied in places by flow banded, altered rhyolites (Figure 21). This northeast structure dislocates the quartz feldspar porphyry unit and induces significant brecciation in the Forsayth Granite. The RBZ zone trends in a northerly direction from the dislocation and is terminated in the north by another northeast trending shear zone. The southern extent of the KGM gold soil anomaly lies on strike to the north of this second structure and may represent a northerly extension of the RBZ prospect.

In the north the RBZ consist of low relief, friable and poorly outcropping coarse grained Forsayth Granite has been interpreted to be significantly altered and contains a number of mineralised structures consisting of drusy quartz infilling hydrothermal breccia. ISM soil sampling gold and silver anomalies spatially correspond to these breccia zones. On the eastern contact with a brecciated QFP, a series of sub-parallel ribbons of hydrothermal breccia containing visible sulphides associated with drusy quartz infill extend for a distance of 600 metres on the surface. The breccias are variably quartz veined with sulphides consisting as coarse aggregates of pyrite and arsenopyrite with subordinate sphalerite and brecciated fragments of ginguero banding, The breccias consistently display high levels of Ag (+300g/t) with increasing Au values to the south. Rock chip sampling at 50 metre intervals conducted in 2015 averaged 2.1g/t Au and 379g/t Ag This zone has been measured at 40 metres wide in the thickest zone but narrows off to the south to 1.5 metres (Figures 21, 22 and 23).

To the south and west of the breccias, a sub-cropping, semi-circular mafic intrusive of indeterminant age, intrudes the Forsayth granite. It's margins display chalcedonic veining trending northerly and on the western contact with the western outcrop of the quartz feldspar porphyry. This western contact extends to the south into brecciated granites with sub-cropping banded chalcedonic veins and corresponds to a +100ppb gold in soil anomaly and associated strong Ag anomaly,

South of MacDonald Creek the RBZ contains a number of shallow workings were recorded over a discontinuous 900 metre long zone striking northwest (Figure 21, 22, 23). The old workings were rock chip sampled by previous companies returning an average for all samples of

Northwest group (746025mE/7969145mN):                      33.9 g/t Au & 35.5 g/t Ag                      (4 samples)

Southeast group (746486mE/7968862mN)                      51.3 g/t Au & 146.1 g/t Ag                      (9 samples)

The southeast group includes the old workings of Jesse Bell and Rose.

Not all samples from high sulphide quartz vein samples returned high gold values. Some samples were derived from altered and mineralised intrusives. The following were some examples:

- Jarosite rich, gossanous, quartz-eye rhyolite sub-volcanic:                      100.0 g/t Au    95.0 g/t Ag.
- Pyrite-quartz micro-veined, drusy, cavities, rhyolite intrusive:                      14.9 g/t Au,    3.0 g/t Ag

The area is located is a subdued topographic area between MacDonald and Little MacDonald Creek. Little outcrop is observed as much of the area is covered by Recent sediments from the two drainages. The vein orientation trends to the northwest but disappears under recent sediments at the confluence of MacDonald and Little MacDonald creeks. At the Rose, the veins swing to a southerly strike where they are cut by a major northwest structure, before disappearing under Tertiary terrace river gravels.

Results of the ISM rock chip sampling of the RBZ prospect are summarized in the following table and displayed in Figures 21 (gold) and Figure 22 (silver),

Table 9 - 1 Average gold and silver assays from selected rock chips collected by ISM

VEIN NAME	LOCATION GDA94 UTMZ54S		STRIKE LENGTH m	WIDTH m	NUMBER of SAMPLES	AVERAGE ASSAY g/t	
	EAST m	NORTH m				Au	Ag
<b>Robb</b>	745770	7970700	600	2.0	15	2.1	379
<b>Little Hill</b>	745655	7970000	100	0.5	7	7.9	322
<b>Little MacDonald Ck</b>	746780	7969475	200	0.75	6	16.0	141
<b>Lees</b>	746110	7969380	120	3.0	4	20.8	73
<b>Jesse Bell</b>	746630	7969085	140	0.5	4	17.3	330
<b>MacDonald Creek</b>	746080	7969085	30	2.4	4	10.5	85
<b>Jims</b>	746475	7969050	130	0.5	3	27.0	260
<b>Rose</b>	746705	7968860	300	1.5	8	30.5	327
<b>Silver</b>	746880	7968380	450	1.0	10	8.3	1,967

The assay results from the ISM rock chip sampling confirmed that the RBZ Prospect contains a series of epithermal veins with high to very high values of gold and silver. One sample from the Silver vein assayed at 5.48 g/t Au and 1.265% Ag ( 400 oz ).

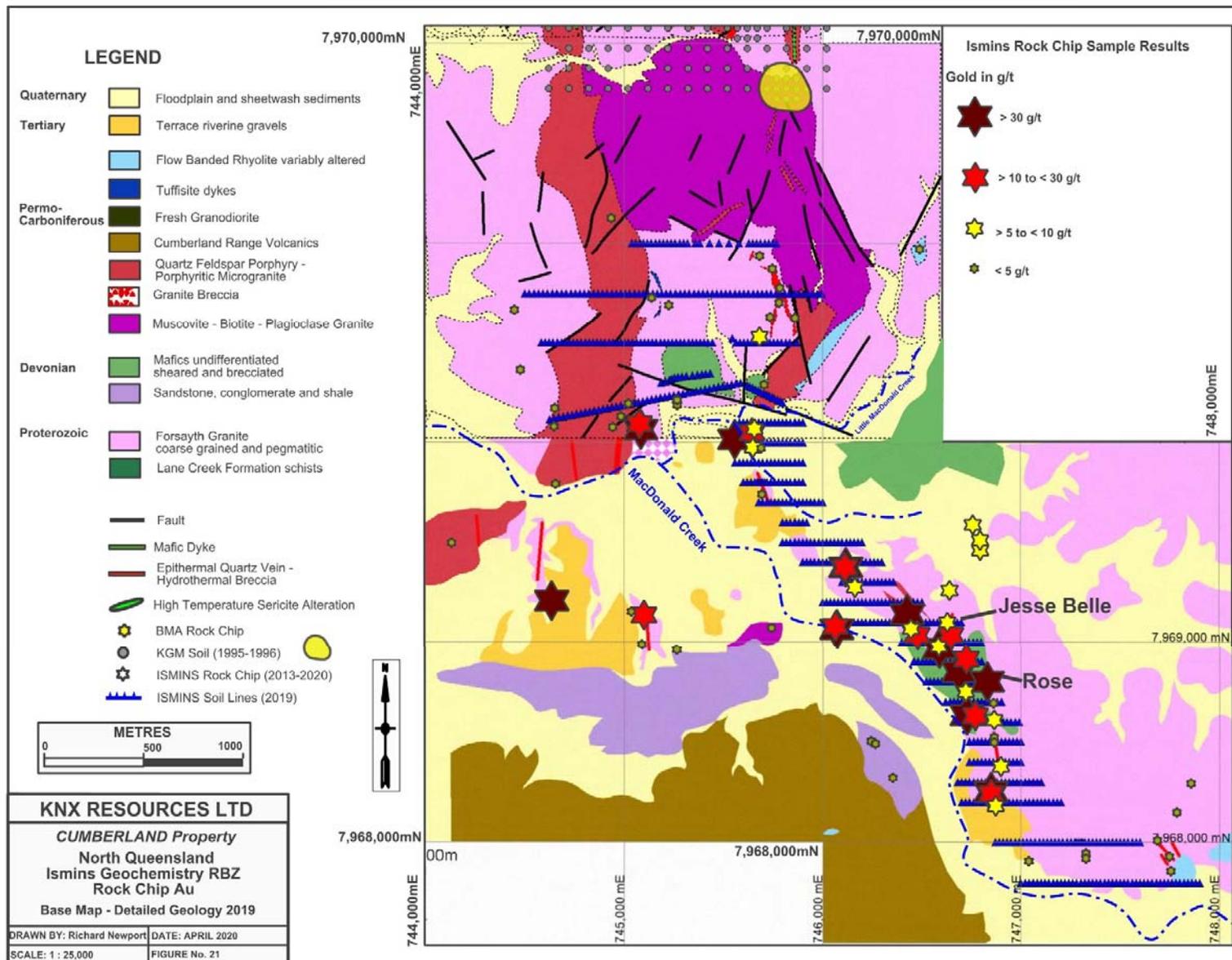


Figure 21. Cumberland Property 2019 RBZ Detailed Geology Rock Chip Geochemistry - Gold

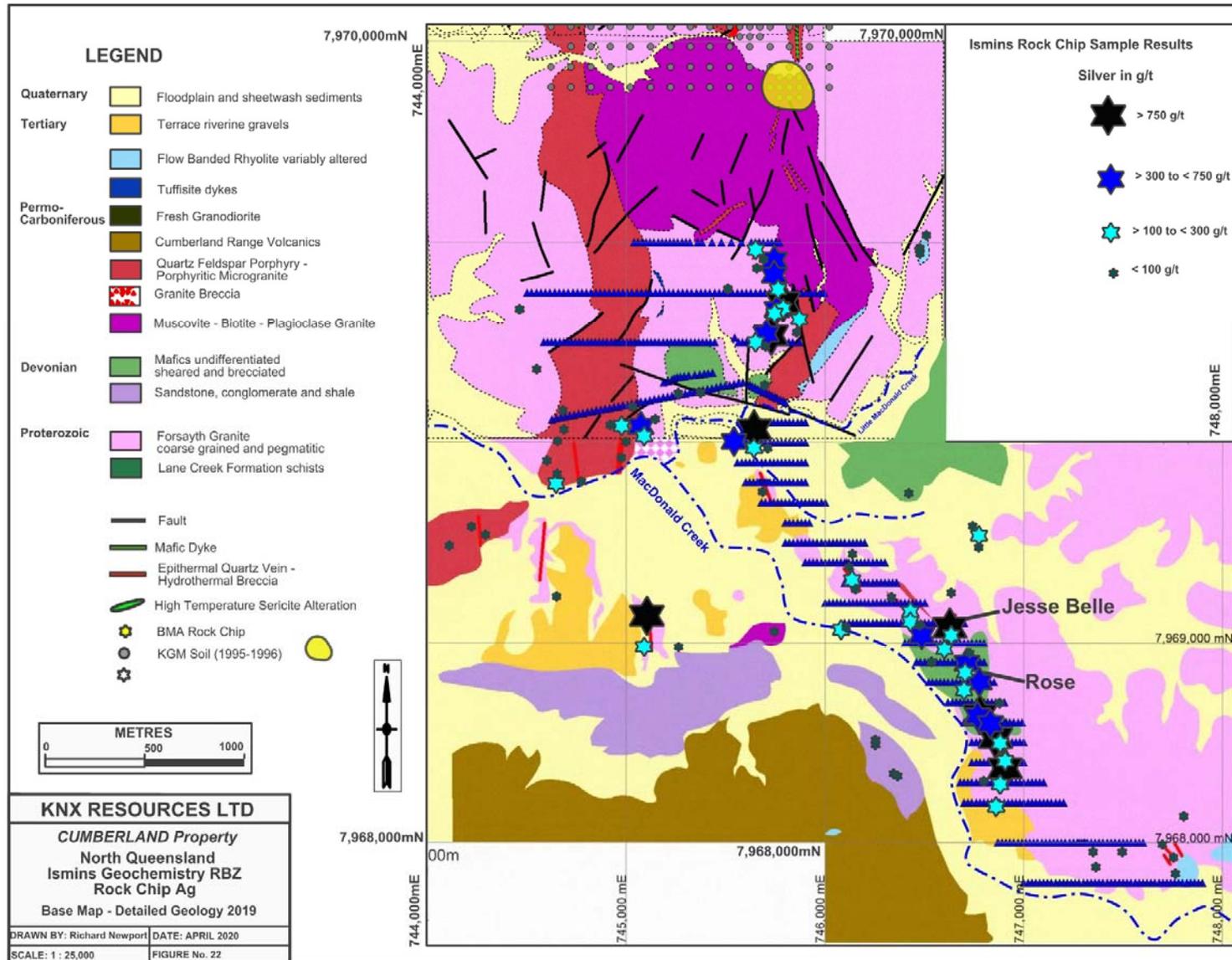


Figure 22. Cumberland Property 2019 RBZ Detailed Geology Rock Chip Geochemistry – Silver

Soil sampling by ISM of the RBZ prospect was based on a nominally east west grid covering 3000 metres of strike length (Figure 23). A total of 647 samples representing 13,481 linear metres was collected generally spaced at 20 metre intervals, obvious mineralisation was sampled at 10metre intervals. Samples were screened at minus 80 mesh at certified laboratory ALS in Brisbane Queensland, prior to assay by ICP-MS. A description of bedrock lithologies were made at each sample site where outcrop was noted.

Details of the soil sampling program on the RBZ is shown in Table 9 - 2.

Table 9 - 2 ISM Soil sampling details RBZ prospect

Soil Grid North RBZ						
Line No	Easting		Sample Numbers		Sample count	Line Length (meters)
	Start	Finish	From	To		
<b>Laneway</b>						
7970115	744624		100104	100147	44	
7970200		745800	100362	100375	14	1160
7970500	744583	745868	100301	100361	61	1285
7970750	744500	745840	100148	100213	66	1495
7971000	745008	745769	100389	100417	29	761
					<b>214</b>	<b>4701</b>

Soil Grid South RBZ						
Line No	Easting		Sample Numbers		Sample count	Line Length (meters)
	Start	Finish	From	To		
7970100	745580	745900	100418	100428	11	320
7970000	745900	745560	100429	100443	15	340
7969900	745560	745900	100444	100457	14	340
7969800	745600	745900	100458	100470	13	300
7969700	746000	745680	100471	100479	9	320
7969600	745800	745920	100480	100484	5	120
7969500	746100	745800	100485	100499	15	300
7969500	746120	746200	100536	100540	5	80
7969400	745900	746200	100500	100514	15	300
7969400	746220	746280	100532	100535	4	60
7969300	746320	746000	100515	100529	15	320
7969300	746340	746360	100530	100531	1	20
7969200	746000	746500	100541	100565	25	500
7969100	746100	746700	100566	100596	31	600
7969000	746800	746400	100597	100617	21	400
7968900	746800	746460	100618	100635	18	340
7968800	746850	746520	100636	100653	18	330
7968700	746900	746620	100753	100767	15	280
7968600	746700	764990	100654	100671	18	290
7968500	747000	746740	100814	100827	14	260
7968400	747000	746740	100672	100686	15	260
7968300	747100	746680	100828	100851	24	570
7968200	747200	746700	100687	100712	26	500
7968000	746870	747600	100713	100752	40	730
7967800	747900	747000	100768	100813	46	900
					<b>433</b>	<b>8780</b>

The geochemical association of Au-Ag-As were noted previously as having the most significance in distinguishing epithermal mineralisation as distinct from earlier phase mesothermal orogenic mineralisation which characteristically has an association of Au -Pb -Zn +/- Ag, Cu, Bi. The Au-Ag association was individually plotted on geology for data ranges as indicated in Figure 23. noting that base metals were generally low, consistent with epithermal style mineralisation.

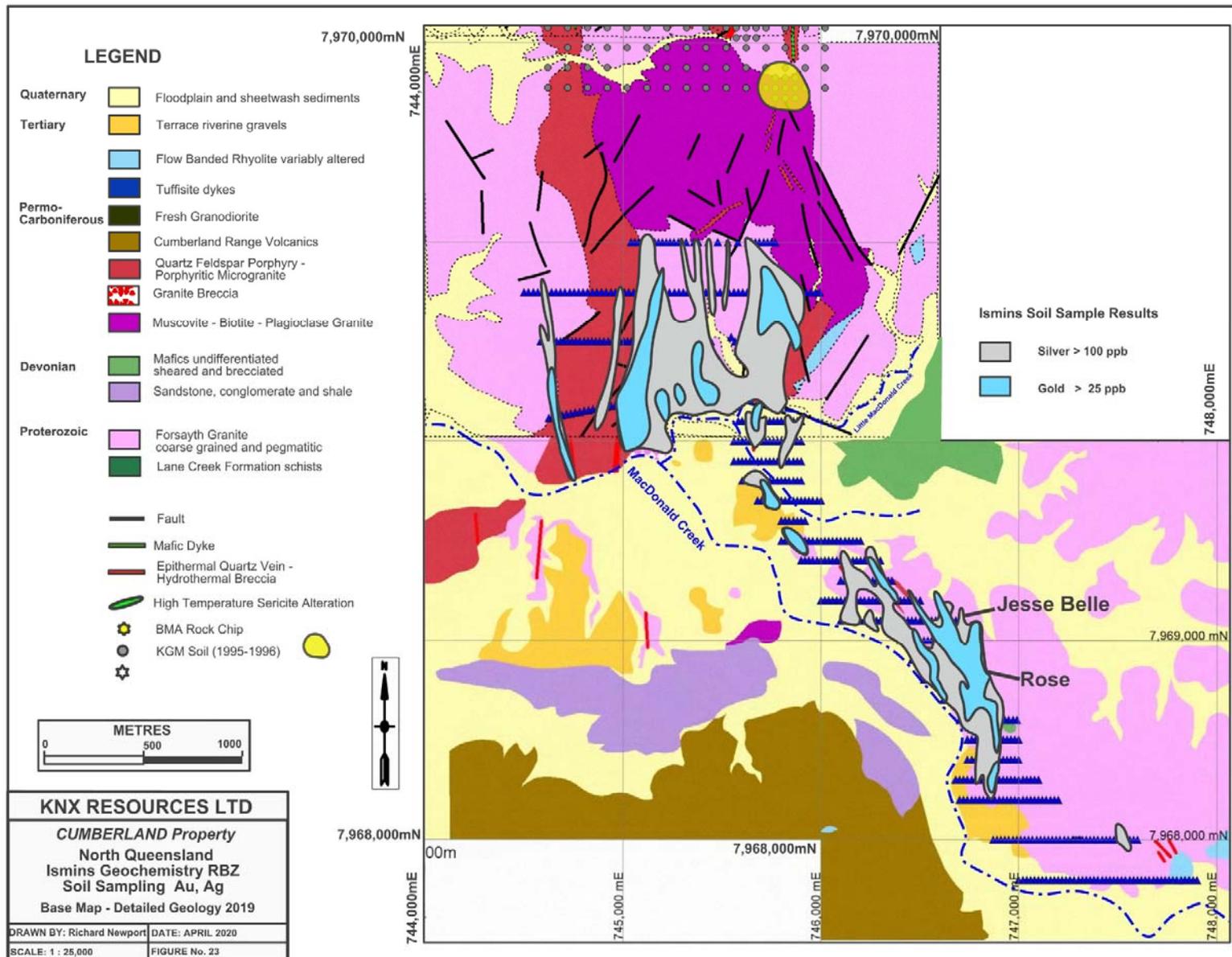


Figure 23. Cumberland Property 2019 RBZ Detailed Geology Soil Geochemistry – Gold and Silver

**9.5.4 The Rock Prospect (3)**; consists of Permo-Carboniferous quartz feldspar porphyry microgranite intruding into Proterozoic Lane Creek fine grained sediments displaying variably contact metamorphic textures and extensively alteration to sericite and clay with associated multi-phase quartz veining. The Rock is considered to be in a plutonic wall rock contact setting.

ISM mapped The Rock prospect at 1:5000 scale after collecting a number of rock chip samples which returned anomalous values of silver up to 96 g/t.

The mapping identified a series of plug shaped mafic bodies intruding the Lane Creek Formation that appear to be older than the subsequent intrusions of the Permo-Carboniferous Prestwood Microgranite Figure 24

Observed mineralisation at The Rock consists of breccias, bedding conformable quartz veins with sulphides, sericite filled fractures, and altered intrusive dykes showing multiphase quartz veining with scorodite, possibly pyromorphite and jarosite

ISM conducted reconnaissance soil sampling of the Rock prospect on three lines (Figure 24) for a total of 1266 metres and 62 samples, Soil samples were taken at a nominal 20 metre spacing. Samples were screened at minus 80 mesh at certified laboratory ALS in Brisbane Queensland, prior to assay by ICP-MS.

Gold showed only spot high values with a peak of 23 ppb. There was a good correlation between high Ag, spot Au and coincident As + Pb + (Sb, Mo).

Silver values show consistent, coherent anomalous values, with almost all values greater than 150ppb. The silver anomaly greater than 500ppb is primarily distributed along soil line 3 to the southeast and around the highest topography.

A comparison of the anomalous soil results with the historic gold-silver rock chip sampling did not match the location of the higher rock chip results around soil line 1, however, rock chips containing Au conformed to the coincident zones of Ag -As-Pb.

The soil data is presented showing gold and silver distribution greater than 10ppb Au and 500ppb Ag, plotted on a base geology map at 1:5000 scale by Newport (2019).

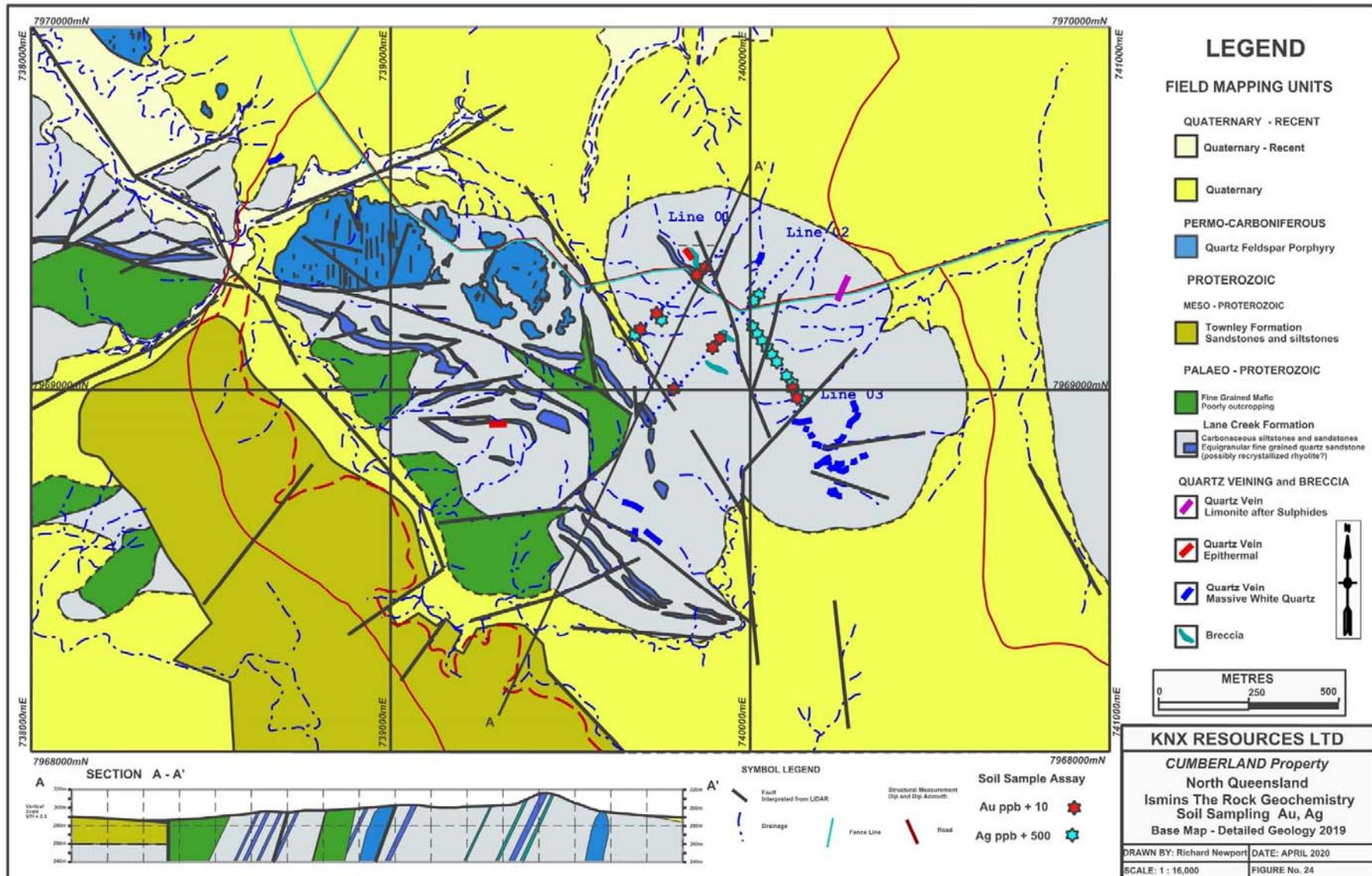


Figure 24. Cumberland Property 2019 The Rock Prospect Detailed Geology Soil Geochemistry – Gold and Silver

**9.5.5 Pillars Prospect (4)** is located in a series of north south structures within Permo-Carboniferous quartz feldspar porphyry microgranite. It consists of, low temperature quartz veins and sulphides associated with brecciated porphyry in a linear structural zone. Pillars is considered to be similar to the RBZ prospect in it's setting (Figure 25).

Exploration of this prospect is at a very early stage, with reconnaissance rock chip sampling returning up to 2.76 g/t Au and 09. g/t Ag.

Four (4) kilometres to the west is the recently discovered Anomaly 79 in a similar setting to the Pillars returning a silver assay of 500g/t Ag.

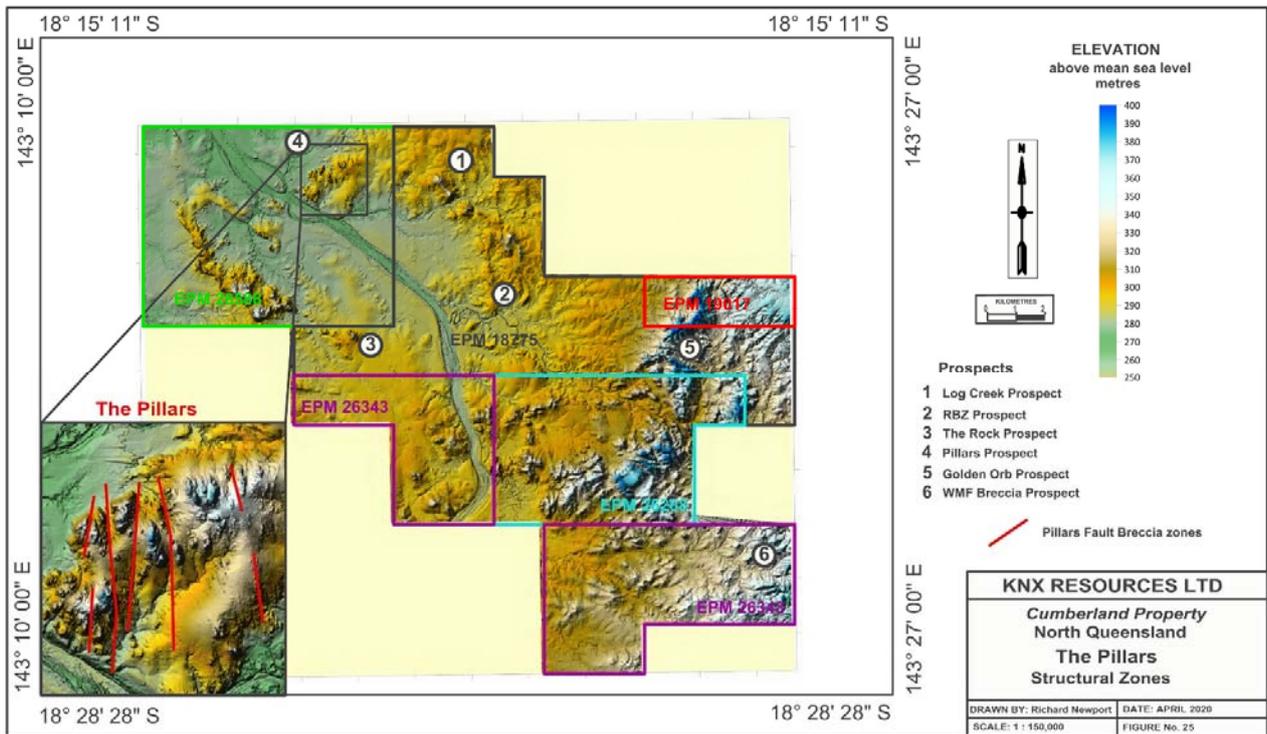


Figure 25. Cumberland Property 2019 The Pillars Prospect Location on LiDAR and details of structure

**9.5.6. Golden Orb Prospect (5):** Permo-Carboniferous rhyolitic flow dome intrusive into rhyolitic volcanic pile associated with silicified jasperoidal breccias containing chalcedonic veins Golden Orb is considered to be a shallow epithermal event in a back arc setting.

The Golden Orb vein was discovered by Battle Mountain Australia (BMA) in the 1980's and described as a multiphase, layered to drusy, strongly brecciated chalcedonic silica vein containing sericite and altered rhyolite volcanic fragments. Initial rock chip sampling of the Golden Orb vein by BMA revealed elevated gold to 0.24 g/t Au and anomalous gold to 0.86 g/t Au in the pyrite-arsenopyrite rich zones within the vein. Downstream float samples of similar lithologies have returned up to 1.56 g/t Au. The Golden Orb vein is reported to be 600m long and 0.1 to 1.5m wide, and trends 100 degrees magnetic and is vertical, (MacGregor-Dawson 2018). A number of veins of similar composition and orientation, but of smaller size, were reported by BMA to exist on the inner edge of the Scrubby Creek Rhyolite ignimbrite up to 300m south of the Golden Orb Vein (Figure 26).

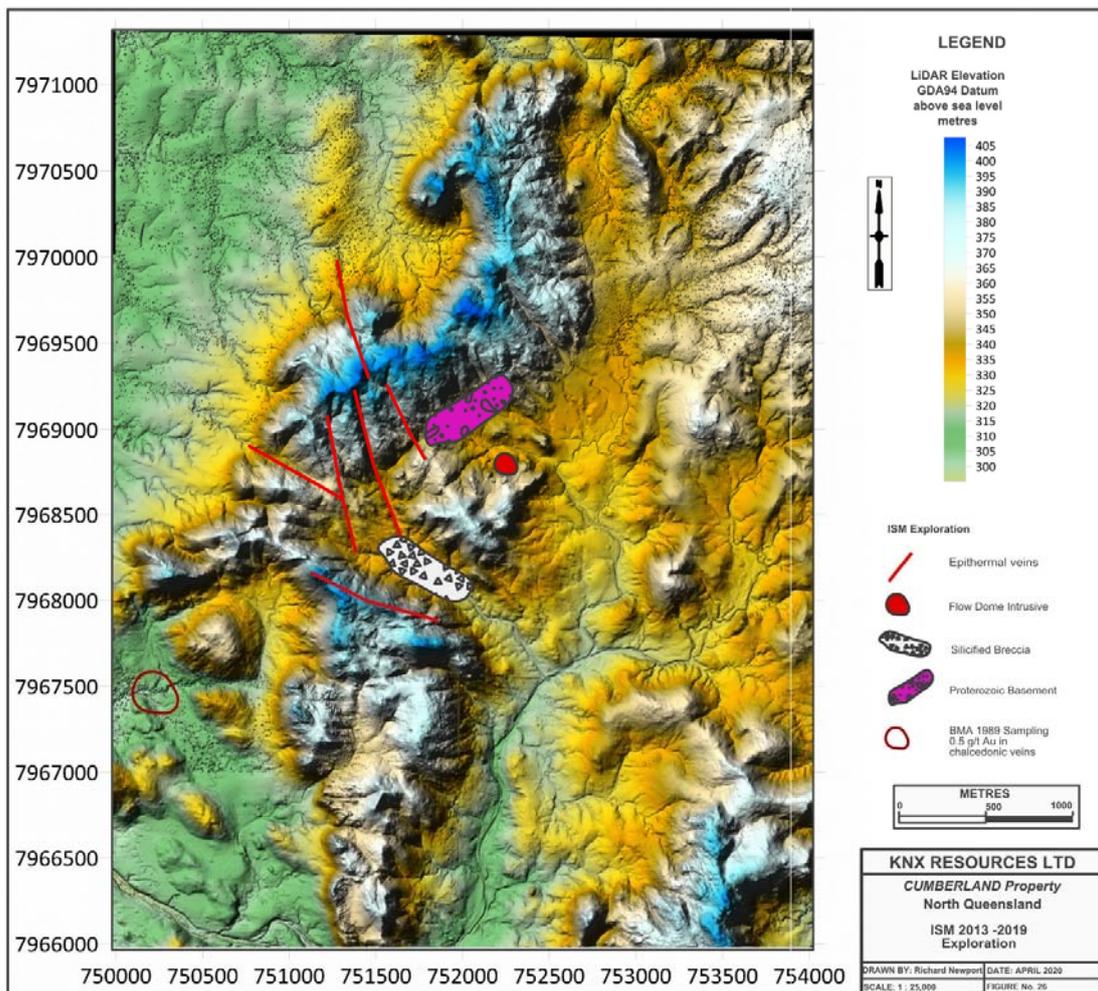


Figure 26. Cumberland Property 2019 Golden Orb Prospect Location on LiDAR and details of structure

The Golden Orb area lies in rugged terrain wholly within epiclastic, silicic, fragmental rocks of the Permo-Carboniferous felsic Cumberland Range Volcanics. ISM discovered further epithermal veins of similar character to the Golden Orb Vein along with a flow banded rhyolite dome intrusive into the volcanic pile and at least one zone of intensely brecciated and jasperoidal volcanics. Assays of outcrops are up to Au 0.23 g/t and Ag 1.7 g/t.

**9.5.7 WMF Breccia Prospect (Wait for Me) (6);** Permo-Carboniferous brecciation, possibly confined to a pipe structure, associated with felsic intrusives and hydrothermal fluids, that have introduced quartz-carbonate veining and sulphide mineralisation, along with variable alteration. WMF is considered to be multiphase breccia pipe event in an epithermal back arc setting.

This prospect was discovered with BCL stream sampling by KGM in 1995. Here four contiguous stream samples returned BCL gold values of 12.6, 6.7, 4.9 & 4.1 ppb Au.

Follow up rock chip sampling returned low order gold results up to 0.48 g/t Au. KGM was encouraged enough to collect soil samples on a regular grid of 23 line km soil grid (1.2 x 0.95 km) with 50m spaced lines and sample intervals for a total of 500 samples. Additionally, 25 rock chip samples were collected from the breccia area, making a total of 28 rock samples on the project. Of the 28 rock chip samples, 18 returned values of 0.10 g/t Au or higher, with 7 samples from 0.46 to 3.90 g/t Au Figure 27).

The soil survey defined a strong very strong core soil anomaly over 300m x 150m for all four elements (Au, Ag, As & Pb) that appears to be related to an intersection of northeast-southwest structures and less prominent west- east structures centred on 754,000mE / 7,960,850mN.

The ground magnetic results show a high centred on the location of an intrusive porphyry outcrop mapped by KGM that is offset to the southwest of the main geochemical anomaly.

ISM examined the prospect in 2017 and 2018 and intends to explore it further using DC/IP geophysics to better define drill targets (MacGregor-Dawson 2018)

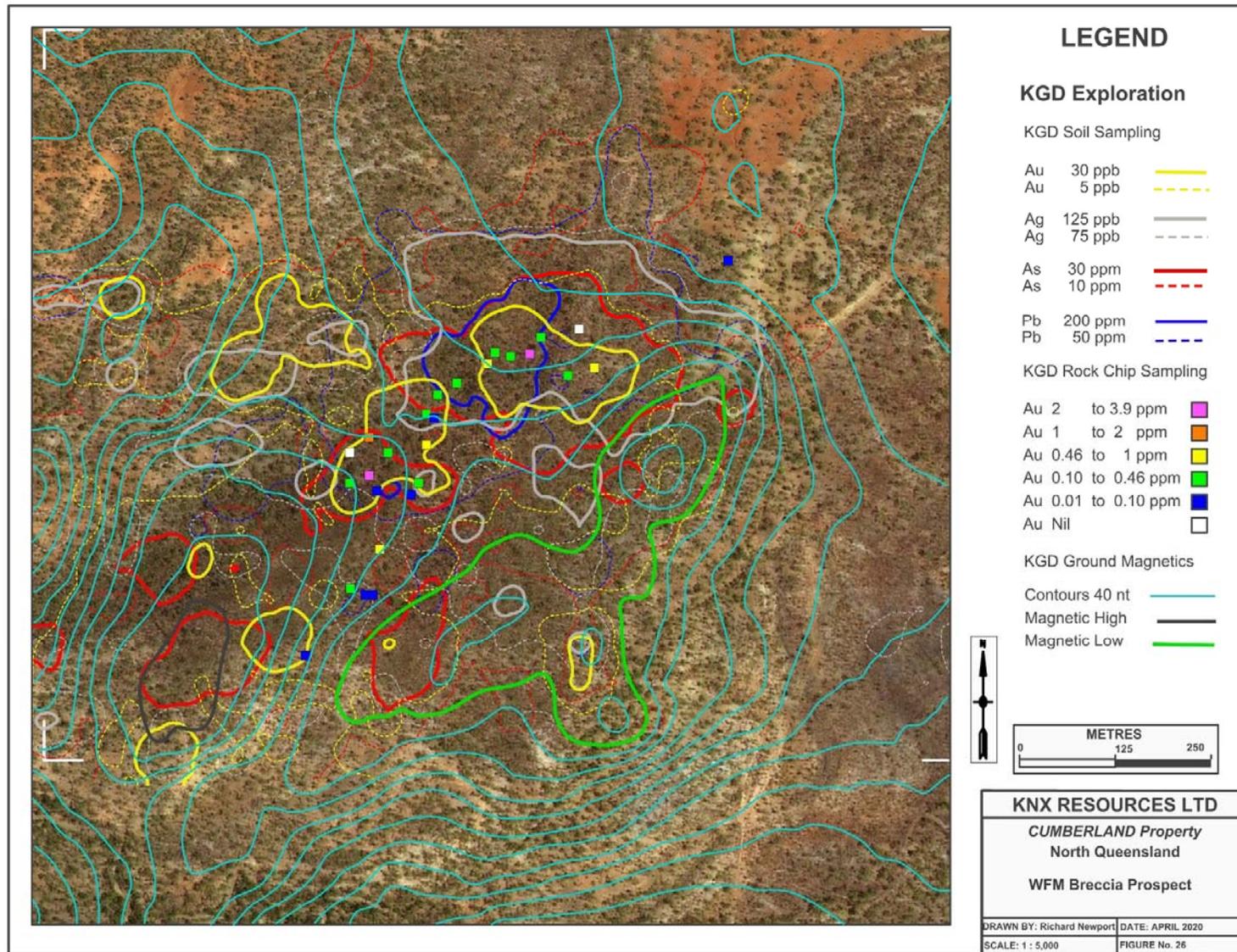


Figure 27. Cumberland Property 2019 WMF Breccia Prospect Geochemistry and Geophysics

## 10.0 DRILLING

At Log Creek, five drill holes were used to test soil and IP anomalies. Holes were a combination of RC & diamond tails, and some had down-hole IP surveys done (Ricketts et al 1997). No drilling was done at Victory South; The collars of five RC holes with diamond tails are shown as black circles in Figure 17.

A review of the KGM five-hole drill program found that the first four drill holes at Log Creek were targeted on linear IP chargeability and coincident base-metal soil anomalies associated with quartz-sericite alteration located on a NW trending ridge. All holes were drilled to the NE with a dip of -60° to a depth of around 120 to 150m. KGM reported that all holes intersected zones of strong sericite-pyrite alteration within the Carboniferous quartz feldspar porphyry. The fourth hole (LCRD4) also intersected a breccia from 76.6 to 103.5m, which was mineralised from 76.6 to 82.8m. Pervasive sericitic alteration is present throughout the upper 150m of this hole.

Assays of the drilling samples (Table 10.1) returned narrow intervals of low-level gold and strongly elevated base metals. Silver was significantly anomalous, returning up to 63ppm Ag (2oz/t) over a 2m interval, 30m down hole (the corresponding gold assay was 0.83ppm Au). KGM considered the presence of breccias and similar vein assemblages within this large mineralised system, to have affinities to the Kidston breccia-hosted gold deposit (3.7Moz Au), approximately 100km to the south east.

**Table 10-1: Log Creek Drilling**

Hole LCR1	From m	To m	Intv m	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	S %
	30	32	2	0.83	244	471	908	63	27600	2.82
	50	52	2	0.05	3510	223	482	29	118	1.55
	54	56	2	0.15	204	151	1590	1	24	0.25
	82	86	4	0.11	983	507	1330	19	1000	2.89

LCR1 Comments: Host rock is variably argillic to phyllic (sericite) altered quartz feldspar porphyry with 1-5% quartz vein material in the chips. Silicification occurs adjacent to larger veins and structures. Also 1-5% disseminated and vein pyrite and local base-metal sulphides are reported. Presence of siliceous fine grained dark grey fragments could be siliceous andesitic dykes. Below 100m the alteration and mineralisation weakens to minor levels. (EOH at 120m).

Hole LCRD2	From m	To m	Intv m	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	S %
	12	64	52	<0.005	45	1163	3299	1.5	10	0.27
Includes	14	34	20	<0.01	93	2257	4110	3.4	11	0.48
And	46	48	2	0.26	26	447	1740	1.0	47	0.21
And	48	54	6	0.006	40	1545	3167	2.1	9	0.32
	88	90	2	0.013	345	9000	22100	29.0	44	1.87
	100	114	14	0.066	424	1669	6665	13.0	103	0.77
Includes	110	112	2	0.38	2700	1290	32800	72.0	596	3.55

LCRD2 Comments: Similar host rock, alteration and mineralisation as in LCR1. RC to 48m then core to EOH at 150m. A 30 cm interval of breccia is recorded at 89.6m and several Qtz-py-sph-ga-cpy veins are present within and beside this breccia. Qtz-chl veins are common and weak to mod alteration continues to EOH. The 110-112m interval hosts silicified quartz feldspar porphyry with three quartz veins up to 16 cm thick carrying pyrite, chlorite sphalerite and chalcopyrite.

**Table 10-1: Log Creek Drilling, continued**

Hole LCRD3	From m	To m	Intv m	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	S %
	4	34	30	<0.01	70	1110	3670	3.3	42	0.56
Includes	26	34	8	<0.01	100	2300	5670	5.0	88	1.22
	58	64	6	0.102	488	196	9356	8.2	20	1.11
Includes	62	64	2	0.20	692	250	9200	13.0	19	1.60
	128	140	12	0.009	109	222	3250	4.0	388	0.44
Includes	134	140	6	0.014	156	281	5183	6.3	634	0.72
	158	166	8	0.02	366	205	1196	9.3	2791	0.82
Includes	158	162	4	0.033	647	344	1553	17.5	5540	1.42

LCRD3 Comments: Rock type, alteration and mineralisation as above for holes 1 & 2. Variable silica-sericite-clay alteration related to quartz-carbonate-pyrite-chlorite veining +/- base-metals in the veins and disseminated in the altered quartz feldspar porphyry. Angular breccia reported at 62.6 to 63.6m, cut by a 15mm quartz-sphalerite-pyrite-chalcocite-bornite vein at 63.3m. Moderately altered to end of hole (EOH 177m).

Hole LCRD4	From m	To m	Intv m	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	S %
	32	36	4	0.18	2037	324	219	26.0	2190.0	2.00
	36	96	60	0.01	149	460	2108	3.3	507	0.69
Includes	76	78	2	0.10	1090	1580	9500	17.0	12700	3.22
	130	134	4	0.005	44	2380	2285	3.0	15	0.18
	170	201	31	0.007	12	378	479	0.9	34	0.20

LCRD4 Comments: As above – variably sericitized quartz feldspar porphyry with quartz-chlorite-pyrite veins +/- sphalerite-galena-chalcopyrite. Several narrow (<6cm) breccia veins or shear/shatter breccias are reported between 64 to 69m. Around 75m strong micro-fracturing forms weak breccias in places. A strongly sericitized, silicified and veined andesite is present from 77.4 to 80.9m. Brecciated from 81.9 to 103.5 with fragments consisting of porphyry, granite, rhyolite and andesite dykes – in places polymictic, and locally sheared. Black strongly biotite altered porphyry from 133.2 to 134.7m

Hole LCR5	From m	To m	Intv m	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	S %
	0	98	98	~0.005	410	1504	4633	5.0	576	0.78
includes	26	42	16	<0.005	1261	1535	4157	6.8	549	0.63
And	86	90	4	0.022	1590	140	7650	10.4	10205	3.04
	98	108	10	0.072	91	193	919	8.1	998	1.48

LCR5 Comments: Alteration & mineralisation contact is at 108m (EOH-138m). Note higher gold and lower base-metals on this contact (98-108m). Breccias are logged at 64-66m, 80-82m & 94-96m (possibly similar to breccias noted in LCRD4). Below 108m the rock is weakly sericitized porphyry with tourmaline, EOH at 138 metres.

To the author's knowledge, no other drilling has been recorded as being conducted on the Cumberland Property.

## 11.0 SAMPLING METHOD AND APPROACH

Records of sampling methods from previous and current explorers are contained in the following references;

1972	Wright et al (1972)	Bridge Minerals Pty. Ltd
1989	Cussen et al (1989)	Battle Mountain (Australia) Inc
1995	Ricketts et al (1995)	Kidston Gold Mines Ltd
1996	Ricketts et al (1996)	Kidston Gold Mines Ltd
1997	Ricketts et al (1997)	Kidston Gold Mines Ltd
1998	Sparks (1998a)	Kidston Gold Mines Ltd
1998	Sparks (1998b)	Kidston Gold Mines Ltd
2000	Sparks (2000)	Kidston Gold Mines Ltd
2020	Spencer (2020)	Ismins Pty Ltd

A number of different types of samples have been obtained from the Cumberland Property at various times including:

- Surface rock chip grab samples from outcrops and historic mine dumps.
- Soil and stream sediment geochemical samples,
- Drill chip assay samples,
- Sawn drill core assay samples, and
- RNA verification samples

The author has examined all these reports and is satisfied that appropriate sampling methods and approaches are consistent with industry standards at the time of collection.

## 12.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

A variety of procedures were utilized for the various programs and the different types of samples collected over time.

No details were available for the Bridge Minerals program in 1972.

In 1989, Battle Mountain (Australia) Inc (BMA) submitted stream sediment samples to certified laboratory ALS Townsville Queensland division (ABN 009 936 029) for fire assay (Au) and bulk cyanide leach (BCL) for gold and silver. During the same program BMA submitted rock chip samples to ALS for fire assay (Au) and Atomic Absorption Spectrometry (AAS) for elements Ag, Cu, Pb, Zn, and As.

Kidston Gold Mines Ltd (KGM) submitted a large number of stream sediment samples for BCL analysis of elements Au, Ag, Cu, Pt and Pd as well as -80# stream sediment samples analysed for Cu, Pb, Zn, Ag, As, Sb, Bi, Mo, S, Co, Ni, Mn and Fe by induced coupled plasma technique (analysis code IC58) to ALS. KGM soil sampling programs included bulk cyanide leach (BCL) for gold, silver and copper by (analysis code PM226) and -80# induced coupled plasma technique (analysis code IC587) for elements Cu, Pb, Zn, Ag, As, Sb, Bi, Mo, S, Co, Ni, Mn and Fe.

KGM submitted reverse circulation drill chips certified laboratory ALS Townsville Queensland division (ABN 009 936 029). Gold was analysed by 50g fire assay with AAS finish (analysis code PM209) and elements Cu, Pb, Zn, Ag, As, Fe, Mo and S by induced coupled plasma technique (analysis code IC58).

Diamond core was sawn in half and submitted to certified laboratory Analabs Townsville Queensland (ACN 004 591 664) with gold analysed by 50g fire assay with AAS finish (analysis code GG313) and elements Cu, Pb, Zn, Ag, As, Mo, Bi, Sb and S by induced coupled plasma technique (analysis code GI107).

Ismins Pty Ltd (ISM) submitted a number of reconnaissance rock chip samples to certified laboratory ALS Townsville Queensland division (ABN 009 936 029). Gold was analysed by 50g fire assay with AAS finish (analysis code Au-AA26), and 33 elements Cu, Pb, Zn, Ag, As, Fe, Mo and S by induced coupled plasma (ICP) – atomic emission spectroscopy (AES) technique (analysis code ME-ICP61), with high silver results re-analyzed by ore grade 4 acid digestion followed by ICP-AES.

In 2019 ISM carried out soil sampling on the property, submitting the samples to certified laboratory ALS Brisbane Queensland division (ABN 009 936 029). Gold, in conjunction with a wide range of 51 base metal and pathfinder elements, were determined from the same digested solution via a combination of ICP-MS and ICP-AES (analysis code AuME\_TL44).

Samples collected under the direction of the writer in 2018 and 2019 were submitted to ALS as part of ISM's ongoing sampling program and are documented in Chapter 13 and Appendix 3

### **13.0 DATA VERIFICATION**

The data verification aspects include the confirmation of existence of work sites such as survey grids, property boundaries, drill holes and underground workings as well as procedures to test the reliability of the historic Property database, in particular the gold, silver and base metal analytical results.

The confirmation of existence of work sites on the property was done by Richard Newport during his site visits in June 2018 and May 2019 as part of an Independent review of KNX's Cumberland properties. In essence all of the work sites reported by previous property owners and checked by RNA are accurate within acceptable limits. However, there is a lack of access to the KGM drill core, it having been disposed when Kidston Gold Mines operation closed down in 2000.

Richard Newport also requested that a number of rock chip samples collected from the various prospects be assayed in conjunction with other samples collected by ISM and advised and directed the location of initial soil lines over RBZ and the Rock prospects to confirm the extent of the mineralization at those prospects.

A summary of those results are presented in Table 13-1 for the western part of the RBZ prospect and in Table 13-2 for the Rock prospect.

The soil sample analytical results ( to a lower order of magnitude ) support the analytical rock chips collected in 2018, confirming the prospects are mineralized in gold and silver.

Copies of the supporting ALS laboratory certificates are reproduced in Appendix 3

Table 13-1: RNA Cumberland Property Verification Sample Locations  
RBZ West Prospect

DATE	Prospect	GDA94_Z54S m East	GDA94_Z54S m North	Elevation m_amsl	Sample Number	Sample Type	Sample Size	Certificate Number	Gold ICP ppb	Silver ICP ppb
2018	RBZ West Zone	745026	7970083	291	647146	ROCK		TV18133120	70	2900
2018	RBZ West Zone	745077	7970086	291	647147	ROCK		TV18133120	19250	366000
2018	RBZ West Zone	745087	7970064	289	647148	ROCK		TV18133120	73900	108000
2018	RBZ West Zone	745057	7970138	293	647149	ROCK		TV18133120	720	5000
2018	RBZ West Zone	745144	7970112	288	647150	ROCK		TV18133120	60	600
2019	RBZ West Zone	745005	7970188	298	100121	SOIL	-80_Mesh	TV19154604	17	460
2019	RBZ West Zone	745027	7970192	297	100122	SOIL	-80_Mesh	TV19154604	37	1710
2019	RBZ West Zone	745050	7970197	295	100123	SOIL	-80_Mesh	TV19154604	32	630
2019	RBZ West Zone	745072	7970201	293	100124	SOIL	-80_Mesh	TV19154604	11	400
2019	RBZ West Zone	745094	7970205	290	100125	SOIL	-80_Mesh	TV19154604	128	410
2019	RBZ West Zone	745117	7970210	288	100126	SOIL	-80_Mesh	TV19154604	13	390
2019	RBZ West Zone	745139	7970214	287	100127	SOIL	-80_Mesh	TV19154604	8	340
2019	RBZ West Zone	745161	7970218	286	100128	SOIL	-80_Mesh	TV19154604	43	300
2019	RBZ West Zone	745184	7970223	285	100129	SOIL	-80_Mesh	TV19154604	18	220
2019	RBZ West Zone	745206	7970227	285	100130	SOIL	-80_Mesh	TV19154604	17	170

Table 13-2: RNA Cumberland Property Verification Sample Locations  
The Rock Prospect

DATE	Prospect	GDA94_Z54S m East	GDA94_Z54S m North	Elevation m_amsl	Sample Number	Sample Type	Sample Size	Certificate Number	Gold ICP ppb	Silver ICP ppb
2018	Rock Prospect	739945	7969106	313	647249	ROCK		TV18165306	60	20200
2018	Rock Prospect	739996	7969061	309	647236	ROCK		TV18165306	720	14200
2018	Rock Prospect	739951	7969208	323	647237	ROCK		TV18165306	280	55900
2018	Rock Prospect	739965	7969110	314	647238	ROCK		TV18165306	1620	7100
2018	Rock Prospect	739928	7969275	319	647216	ROCK		TV18165306	380	88100
2018	Rock Prospect	739947	7969204	322	647217	ROCK		TV18165306	80	31000
2018	Rock Prospect	740051	7969070	313	647218	ROCK		TV18165306	340	27500
2018	Rock Prospect	740068	7969093	312	647219	ROCK		TV18165306	4360	237000
2018	Rock Prospect	740296	7968918	303	647221	ROCK		TV18165306	220	7700
2018	Rock Prospect	740029	7969310	307	647223	ROCK		TV18165306	70	9100
2018	Rock Prospect	740037	7969280	311	647225	ROCK		TV18165306	80	65400
2019	Rock_Line_03	740007	7969174	321	100265	SOIL	-80_Mesh	TV19154604	5	590
2019	Rock_Line_03	740021	7969155	319	100266	SOIL	-80_Mesh	TV19154604	3	670
2019	Rock_Line_03	740034	7969135	317	100267	SOIL	-80_Mesh	TV19154604	7	780
2019	Rock_Line_03	740048	7969116	315	100268	SOIL	-80_Mesh	TV19154604	4	770
2019	Rock_Line_03	740061	7969097	313	100269	SOIL	-80_Mesh	TV19154604	5	610
2019	Rock_Line_03	740075	7969077	312	100270	SOIL	-80_Mesh	TV19154604	7	780
2019	Rock_Line_03	740088	7969058	309	100271	SOIL	-80_Mesh	TV19154604	5	480
2019	Rock_Line_03	740102	7969038	305	100272	SOIL	-80_Mesh	TV19154604	3	980
2019	Rock_Line_03	740115	7969019	302	100273	SOIL	-80_Mesh	TV19154604	6	1860
2019	Rock_Line_03	740129	7968999	300	100274	SOIL	-80_Mesh	TV19154604	23	1520
2019	Rock_Line_03	740142	7968980	299	100275	SOIL	-80_Mesh	TV19154604	13	1750

## **14.0 ADJACENT PROPERTIES**

The history of exploration and mining in the Etheridge Goldfield at Georgetown, where the Cumberland Property is located, is covered in Chapter 8 of this reports.

The author is not aware of any current, significant mining operations or published resources and reserves of minerals adjacent to the Cumberland Property.

## **15.0 MINERAL PROCESSING AND METALLURGICAL TESTING**

To the knowledge of RNA, no recent mineral processing or metallurgical testing has been undertaken on material from the current property.

## **16.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES**

To the knowledge of RNA, no mineral resource or mineral reserve estimates have been undertaken for the current property.

## **17.0 OTHER RELEVANT DATA AND INFORMATION**

To the knowledge of RNA there is no other relevant data and information concerning the current property.

## 18.0 INTERPRETATION AND CONCLUSIONS

A mineral resource has not been discovered on the property. For this reason, the property is considered an early stage exploration project, with excellent potential of discovering a precious metal resource.

Modern exploration activities have been conducted on the Cumberland Property since the early 1970's for gold, base metals and uranium, and some exploration has taken place for stratabound base metals and intrusive related tungsten mineralisation. The more significant work in the Cumberland Property area has been undertaken by Bridge Minerals Pty Ltd, Battle Mountain (Australia) Inc., Kidston Gold Mines Ltd and Mega Georgetown Pty. Ltd, before KNX subsidiary Ismins Pty Ltd lodged the current EPM's.

Historical drill results from the Log Creek Prospect (KGM) indicate only low-grade gold (Au) but moderate grade silver over short intersections of brecciated Permo-Carboniferous quartz feldspar porphyry with strong sericite-pyrite alteration. KGM considered the presence of breccias and similar vein assemblages within this large mineralised system, to have affinities to the Kidston breccia-hosted gold deposit (3.7Moz Au), approximately 100km to the south east.

Previous exploration (as discussed at length in Chapters 7, 8 and 9 of this report), has identified the potential geologic setting for an epithermal style precious metal resource that is likely to be silver (Ag) dominant with gold (Au) credits. The evidence of mineralization in favourable host rocks is sufficient to warrant ongoing work programs. This report is partially based on technical data that was collected in the 1970s through 2000s, and maintained by various property owners throughout the past 50 years. The writer relies on the quality of work of previous operators, their integrity of reporting, and has no reason to doubt the accuracy of the historical data. There would be minimal risk or impact derived from use of this data, as most of this historical work contributes to the ongoing recommended program.

The writer believes that epithermal style precious metal mineralization hosted in brecciated Permo-Carboniferous acid volcanics and porphyry intrusives has the most potential for discovery and development of a mineral resource. In summary, the Cumberland property is considered a property of merit, and is worthy of a significant initial phase of exploration.

## 19.0 RECOMMENDATIONS

RNA recommendations for ongoing work on the Cumberland Property covers two stages of field work designed to attain the following exploration/development objectives of drill target definition, and target drilling.

### Phase 1 Target Definition;

- Complete the extension and infill soil sampling program over the RBZ Prospect by analyzing all remaining samples.
- Commence and complete soil sampling programs over the Golden Orb and Anomaly 79 Prospects (west of the Pillars prospect).
- Complete data integration of all previous exploration results with the results from the proposed Phase 1 program and generate targets to be tested by diamond drilling.

### Phase 2 Diamond Drilling;

- Locate and diamond drill four (4) holes for a total of 600 metres of core, positioned on the RBZ Prospect to test the mineralized breccia.

A budget of approximately C\$ 371,800 is required to complete the two initial stages of work on the Cumberland Property. Table 19-1 below provides a preliminary summary of the total work program budget over an approximately **six (6) month period**.

In the opinion of RNA the above program will establish the potential for the Cumberland Property to host discoverable economic concentrations of precious metals, leading to recommendations for further drilling of established targets.

**Table 19-1: Cumberland Property Preliminary Budget Proposal (C\$)**

**Estimated cost of the programs**

**Phase One – Target Definition**

Geochemical Analysis Assay of RBZ infill and extensional soil samples already collected	\$15,000
Geochemistry Soil sampling program Golden Orb and Anomaly 79	\$55,000
Geology and Data Mapping Update sampling database and maps Analyze results and determine drill collar locations	\$20,000
Statutory Statutory Reporting and Tenement costs	\$8,000
<b>TOTAL (CAD \$)</b>	<b>\$98,000</b>

**Phase Two – Diamond Drilling**

Drill Pad Preparation	\$40,000
Drilling 600m of diamond drilling at \$120/m	\$72,000
Logistics & Accommodation Accommodation & water haulage	\$58,000
Geology Geological supervision and reporting	\$40,000
Geochemical Analysis Assay costs and thin section petrology	\$30,000
<b>TOTAL (CAD \$)</b>	<b>\$240,000</b>

<b>TOTAL</b>	<b>\$338,000</b>
<b>G&amp;A + Contingency (10%)</b>	<b>\$33,800</b>
<b>GRAND TOTAL FOR BUDGET PURPOSES</b>	<b>\$371,800</b>

The above table provides a summary of a two (2) stage exploration/development work program budget over a **six (6) month period**. Additional capital expenditures may be required to continue exploration/development work on the Cumberland Property after the program is completed. Additional debt and/or equity funding would be required for this.

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## 21.0 DATE AND SIGNATURE PAGE

### CERTIFICATE of QUALIFIED PERSON

I, Richard Newport, of the Sydney, NSW, Australia hereby certify that:

1. I graduated with a BSc. (Hons) degree in Applied Geology from the University of New South Wales, Sydney, NSW, Australia in 1973.
2. I am a consulting and contract geoscientist, my business address is 149A McCarrs Creek Road CHURCH POINT NSW 2105 Australia
3. I am a member in good standing of the Australian Institute of Geoscientists (#2182).
4. I have worked as a geoscientist continuously for 47 years since graduation, initially with major international resource companies before establishing an independent contracting and consulting business, providing geological services to the minerals & petroleum industry in Australia, Papua New Guinea and the Pacific Islands. I have considerable experience in mineral exploration for epithermal, porphyry, orogenic and stratiform gold, silver, copper, lead and zinc deposits.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI43-101") and certify that by reason of my education, professional affiliation, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the content and preparation of the entire report entitled Technical Report on the Cumberland Property, Georgetown District Queensland Australia for Essex Minerals Inc. and dated July 24, 2020 (Signature Date: July 24<sup>th</sup> , 2020), relating to the Cumberland Property tenements. I visited the property in June 2018 and May 2019 as part of an Independent review of KNX's Cumberland property.
7. The only material changes on the property since these inspections was the collection of additional geochemical samples. The analytical results of these samples are included and referred to in the body of this report.
8. On July 24, 2020, the effective date of the Technical Report, to the best of my knowledge the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading
9. I am not aware of any material fact or material change that is not reflected in the Technical Report, the omission to disclose which makes the Technical Report misleading.
10. I am independent of the vendor and issuer as applies in Section 1.5 of NI 43-101
- 11.1 have read NI 43-101 and Form 43-101F1, to prepare this Technical Report in compliance with the instrument and form.

I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them, including electronic publication in the public company files on their web-sites accessible by the public, of the Technical Report.



Richard Newport BSc (Hons) MAIG (2182)  
Date: July 24<sup>th</sup> 2020

## **APPENDICIES**

### **1.0 PROPERTY DOCUMENTS**



Exploration & Mining Title Services (QLD) Pty Ltd  
www.hemtsqld.com.au

## AMD RESOURCES LIMITED

### INDEPENDENT TENEMENT REPORT

### QUEENSLAND MINING TENEMENTS

May 2018

#### 1. INTRODUCTION

##### 1.1 *Scope of Instructions*

Hetherington Exploration & Mining Title Services (QLD) Pty Ltd ("HEMTS (QLD)") has been instructed by AMD Resources Limited (ACN 602 696 873) ("Company") to prepare a Tenement Report ("Report") regarding the rights conferred by the exploration tenure held by Ismins Pty Ltd (ACN 141 217 343) ("The Company") in Queensland, as set out in the attached Schedule ("the Schedule").

##### 1.2 *Qualifications*

Brian Martin has approximately 30 years' experience in exploration and mining tenement management across Queensland.

##### 1.3 *Independence*

HEMTS (QLD) is independent from the Company within the meaning of the VALMIN Code. HEMTS (QLD)'s costs of preparing this report have been calculated at its normal charge out rate.

##### 1.4 *Disclaimer*

This report represents the opinion of HEMTS (QLD) only. Much of the information from the Queensland Department of Natural Resources Mines and Energy (DNRME), the Queensland Department of Environment and Science (DES) and the National Native Title Tribunal (NNTT) has been obtained from databases or searches provided by the relevant entity. This report is subject to the proviso that these databases/searches may contain errors and are not always reliable. Where possible, the information obtained has been verified against other available information.

#### 2. COMMENTARY ON THE TENEMENTS

##### 2.1 *General*

The exploration tenements are comprised of Exploration Permit for Minerals ("EPM") No's 18775 ("EPM 18775"), 19017 ("EPM 19017"), 26268 ("EPM 26268"), 26343 ("EPM 26343") and 26586 ("EPM 26586") collectively referred to as "the Queensland Exploration Tenements".

Basic details of the Queensland Exploration Tenements are set out in the Schedule.

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#### SYDNEY

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#### PERTH

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All of the Queensland Exploration Tenements referred to in the Schedule are applied for by or granted to Ismins Pty Ltd as the registered applicant or holder of the legal interest pursuant to the terms of the *Mineral Resources Act 1989* (Qld) ("the MRA").

Granted tenements comprise EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586.

EPM 18775 is due to expire on 29-04-2022. An application to renew the tenement for a further term should be lodged with DNRME by 29-01-2022.

EPM 19017 is due to expire on 29-04-2022. An application to renew the tenement for a further term should be lodged with DNRME by 29-01-2022.

EPM 26268 is due to expire on 22-01-2022. An application to renew the tenement for a further term should be lodged with DNRME by 22-10-2021.

EPM 26343 is due to expire on 12-04-2022. An application to renew the tenement for a further term should be lodged with DNRME by 12-01-2022.

EPM 26586 is due to expire on 09-05-2023. An application to renew the tenement for a further term should be lodged with DNRME by 09-02-2023

The Queensland Exploration Tenements referred to in the Schedule have been granted for in respect of all minerals, other than coal.

## **2.2 Exclusion/Restrictions**

Non-Native Title land relates to land tenures within the Queensland Exploration Tenements where Native Title rights have been extinguished. Native Title land refers to background land tenures where Native Title rights may not have been extinguished.

The Queensland Exploration Tenements have been granted, after having regard to the requirements of the *Native Title Act 1993* (Cth) ("the NTA"), in respect of both Native Title land and Non-Native Title land.

Searches indicate that no specific exclusions or restrictions apply to the Queensland Exploration Tenements.

## **2.3 EPM Conditions**

The following conditions apply to the Queensland Exploration Tenements:

- General Conditions;
- Specific Conditions
- Conditions of the relevant Environmental Authority ("EA") (see Section 2.5).
- Conditions of the relevant Native Title requirement/s (see Section 2.4).

The General Conditions set out the obligations and procedures with which the holder of the Queensland Exploration Tenements must comply when conducting exploration. These conditions address issues such as notification of landowners and compensation requirements before commencing advanced exploration activities.

The Specific Conditions require the holder of the Queensland Exploration Tenements to follow specific programs of works and expenditure commitments outlined in the terms of grant.

The conditions of the relevant EA issued in respect to each of the granted Queensland Exploration Tenements (see Section 2.5) form part of the relevant conditions of grant. It is a condition of the EA that the holder of the EPM complies with all conditions contained in the Code of Environmental Compliance for Exploration and Mineral Development Projects – Version 1.1, now referred to as the Eligibility Criteria and Standard Conditions for Exploration and Mineral Development Projects – Version 2 (“the Environmental Code”).

Comments on the Native Title requirements for each of the Queensland Exploration Tenements are set out in Section 2.4.

#### **2.4 Native Title**

The Queensland Exploration Tenements have been applied for or granted over both Native Title land and Non-Native Title land. Where noted below, the holder must comply with all relevant Native Title conditions when conducting exploration activities on any Native Title land within the Queensland Exploration Tenements.

Table 1 provides a summary for the current Native Title status for each EPM. Reference should be made to the following paragraphs for details of the various Native Title categories and how each of these categories will affect exploration on the relevant EPM.

**Table 1 – Native Title Summary**

<b>EPM number</b>	<b>Native Title Category</b>	<b>Native Title Party</b>
EPM 18775	NTPCs	QCD 2013/007 (85%), no native title party (15%)
EPM 19017	NTPCs	QCD 2013/007 (100%)
EPM 26268	NTPCs	QCD 2013/007 (100%)
EPM 26343	NTPCs	QCD 2013/007 (75%), no native party (25%)
EPM 26586	NTPCs	QCD 2013/007 (4%), no native party (96%)

QCD 2013/007 – Ewamian People 3 – Native Title claim determined on 26-11-2013

#### **Native Title Protection Conditions (NTPCs)**

The grant of EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586 is subject to compliance with the NTPCs.

The NTPCs require the holder to serve a copy of the proposed program of works on any registered or determined Native Title claimant(s) before commencing those exploration activities. The registered/determined Native Title claimant(s) are entitled to a period to review the program of works. If the Native Title claimant(s) do not have any amendments to the program of works and do not require a site clearance to be conducted, exploration can commence without delay. Where a site clearance is required for the proposed exploration sites, one must be completed, and the subsequent exploration activities must be undertaken in accordance with any recommendations made in the subsequent site clearance report.

The NTPCs detail annual payments (administrative payments) payable to the registered/determined claimant(s) and costs associated with site clearances and other matters.

## **2.5 Environmental Authorities**

EPM 18775, EPM 19017, EPM 26268, EPM 26343, EPM 26586 and EPM 26586 have been issued with a Code Compliant EA (referred to as EPSX00656413), which requires the tenement holder to comply with all terms and conditions of the Environmental Code when conducting exploration activities under the authority of the Queensland Exploration Tenements. EPSX00656413 also includes additional conditions in relation to protection of areas of State Environmental Significance. The required financial assurance for each of the Queensland Exploration Tenements is listed in the Schedule.

The Environmental Code imposes various exclusion zones around Category A and Category B Environmentally Sensitive Areas (“ESAs”) within which exploration activities involving the use of machinery cannot be performed (1000 metres for Category A and 500 metres for Category B). No exploration activities (of any nature) can be conducted within Category A ESAs, however if the EA was modified, certain activities might be permitted within Category B ESAs or within the exclusion zones around Category A ESAs and Category B ESAs. The Environmental Code also refers to Category C ESAs within which exploration activities cannot be performed, unless the holder has obtained consent from the relevant administrative authority.

None of the Queensland Exploration Tenements currently include any Category A, Category B or Category C ESAs and therefore no such restrictions currently apply. EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586 contain some areas of State Environmental Significance (generally the gully/creek areas within the tenements). Additional restrictions apply when conducting exploration activities within these restricted areas to reduce the potential impact of those activities.

## **2.6 Expenditure and Reporting Requirements**

It is a condition of the granted Queensland Exploration Tenements that the holder complies with the relevant expenditure commitments. The expenditure commitments for the Queensland Exploration Tenements are set out in the Schedule.

Annual Exploration Reports must be lodged in respect to each granted Queensland Exploration Tenement within one month of the anniversary date of grant. A Statement of Expenditure detailing allowable exploration expenditures incurred for the annual period is also due at the same time.

Whenever the holder relinquishes any sub-blocks from an EPM, they are required to lodge a relinquishment report. This report is due for submission within 2 months of DNRME accepting the relinquishment.

Compliance with the reporting requirements and expenditure commitments of the Queensland Exploration Tenements is important because these matters are considered by DNRME when determining whether to renew the Queensland Exploration Tenements. Further, compliance with such requirements and commitments may also affect DNRME’s decision to renew the Queensland Exploration Tenements in full, or to require a reduction in area. Non-compliance with these conditions could also give rise to “show cause” action which may lead to termination of the relevant Queensland Exploration Tenement by DNRME.

There are no expenditure or reporting requirements outstanding for the Queensland Exploration Tenements as at the date of this report.

## **2.7 Access and Compensation**

In accordance with the land access requirements of the MRA and the Mineral and Energy Resources (Common Provisions) Act 2014 (“MERCPC”), an Initial Notice of Intention of Entry to conduct preliminary activities must be served on each affected landowner at least 10 business days prior to the intended entry. If advanced activities (that is, high impact exploration) are to be carried out, a Conduct and Compensation Agreement must be entered into. The period to negotiate this agreement can take up to 50 business days, with an automatic referral to the Land Court, if an agreement is not reached.

## **2.8 Rent**

Upon grant, the holder of the Queensland Exploration Tenements is required to make annual rental payments to DNRME in respect to the retained area of the EPMS.

The rate of rental is subject to annual increases commensurate with appropriate price indices (next increase is due 1 September 2018). The current rent rate (exclusive of GST) is \$155.80 per sub-block for the Queensland Exploration Tenements (Schedule 5 Mineral Resources Regulation 2013 (QLD)).

As at the date of preparing this report, there are no outstanding rental payments in respect to the Queensland Exploration Tenements.

## **2.9 Encumbrances**

Sections 25 and 33 of MERCP deals with recording of caveats, agreements, arrangements, dealings or interests in the Queensland Exploration Tenements and provides that an agreement, arrangement, dealing or interest recorded under Section 33 shall, subject to being otherwise legally enforceable, take priority over other unrecorded or any subsequently recorded agreement, arrangement, dealing or interest. The registration of a caveat against an exploration permit under Section 25 of the MERCP would be to prevent the registration of the assignment of any recorded interest in the relevant permit unless the caveator provides written consent to said assignment.

There are no caveats, agreements or arrangements currently registered against any of the Queensland Exploration Tenements.

## **2.10 Royalties**

No Annual Royalty Returns and associated royalty payments are required in respect of the Queensland Exploration Tenements, unless mineral production has occurred. In the case of standard exploration activities conducted on the Queensland Exploration Tenements, this is unlikely.

## **2.11 Aboriginal Cultural Heritage**

The activities conducted under the authority of the Queensland Exploration Tenements are required to comply with the *Aboriginal Cultural Heritage Act 2003* (Qld).

The *Aboriginal Cultural Heritage Act 2003* (Qld) provides that there exists a "cultural heritage duty of care" and, therefore, all reasonable and practicable measures must be taken to ensure that Aboriginal cultural heritage is not harmed (see section 23 of that Act). The "Cultural Heritage Duty of Care Guidelines", published by Gazette on 16 April 2004, outline how the cultural heritage duty of care requirement is met.

If a breach of the cultural heritage duty of care is demonstrated, the maximum penalties are \$750,000 for a corporation and \$75,000 for an individual.

It is recommended that an assessment of any proposed exploration activity be compared against the "Cultural Heritage Duty of Care Guidelines" in order to determine whether, or to what extent, Aboriginal cultural heritage may be affected by the activity. It is also recommended that a search of the Cultural Heritage Register and Cultural Heritage database be conducted prior to commencement of exploration activities.

All of the granted Queensland Exploration Tenements are subject to the NTPCs. If the tenement holder complies with all conditions of the NTPCs when conducting exploration activities within the relevant EPM, they would generally have complied with their Cultural Heritage Duty of Care requirements. This would include determining the Aboriginal Party to deal with in respect of the sections of the Queensland Exploration Tenements that are not currently covered by an application for a Native Title claim or by a determined Native Title claim and invoking the NTPC conditions over these areas, with agreement by the Aboriginal Party.

## **2.12 Future Obligations**

Rehabilitation of any current and future exploration disturbances will be necessary and the relevant requirements are detailed in the Environmental Code.

The activities conducted under the authority of the Queensland Exploration Tenements are likely to result in the creation of environmental liabilities for the holders. The environmental liabilities will commence when exploration causes on-site ground disturbance. When any disturbed area has been satisfactorily rehabilitated, the environmental liability in respect to that area will cease.

If exploration is conducted on Native Title land, additional costs in respect to Native Title consultation, negotiation and cultural heritage site clearances would be anticipated.

Rental as outlined in the report is payable annually on the anniversary of grant of each of the EPM's.

The MRA requires the holder of the granted Queensland Exploration Tenements to periodically reduce the area of each of the granted EPM's. Reference should be made to the Schedule for details of the reduction requirements that are/will be applicable to the Queensland Exploration Tenements.

Pursuant to Section 141 of the MRA, the holder of the Queensland Exploration Tenements may make application to DNRME to vary the reduction and/or expenditure conditions.



**Brian Martin**  
**Director,**  
**Hetherington Exploration & Mining Title Services (QLD) Pty Ltd**  
**18 May 2018**

## SCHEDULE

TENEMENT	PROJECT	STATE	REGISTERED HOLDER	COMMENCEMENT OF TERM	EXPIRY DATE	STATUS	AREA (Sub-blocks)	SECURITY		EXPENDITURE COMMITMENT (PA)	RENT (CURRENT TERM INCLUDING GST)	MINERALS
								REQUIRED	HELD			
EPM 18775	Cumberland	QLD	Ismins Pty Ltd (100%)	30.04.2012	29.04.2022	Granted	Yr 1 - 33	\$2,500 (Note 1)	\$2500 (Note 1)	Yr 1: \$30,000	\$3,739.20	All minerals except coal
							Yr 2 - 33			Yr 2: \$45,000		
							Yr 3 - 33			Yr 3: \$7,500		
							Yr 4 - 24			Yr 4: \$25,000		
							Yr 5 - 24			Yr 5: \$35,000		
							Yr 6 - 24			Yr 6 - \$200,000		
							Yr 7 - 24			Yr 7 - \$350,000		
							Yr 8 - 24			Yr 8 - \$375,000		
							Yr 9 - 14			Yr 9 - \$400,000		
							Yr 10 - 14			Yr 10 - \$400,000		
EPM 19017	Cumberland 1A	QLD	Ismins Pty Ltd (100%)	30.04.2012	29.04.2022	Granted	Yr 1 - 3	\$2500 (Note 1)	\$2500 (Note 1)	Yr 1: \$7,000	\$467.40	All minerals except coal
							Yr 2 - 3			Yr 2: \$20,000		
							Yr 3 - 3			Yr 3: \$5,500		
							Yr 4 - 3			Yr 4: \$20,000		
							Yr 5 - 3			Yr 5: \$25,000		
							Yr 6 - 3			Yr 6 - \$60,000		
							Yr 7 - 3			Yr 7 - \$90,000		
							Yr 8 - 3			Yr 8 - \$150,000		
							Yr 9 - 2			Yr 9 - \$175,000		
							Yr 10 - 2			Yr 10 - \$200,000		
EPM 26268	Cumberland South	QLD	Ismins Pty Ltd (100%)	23-01-2017	22-01-2022	Granted	Yr 1 - 13	Nil (Note 1)	Nil (Note 1)	Yr 1: \$20,000	\$2,025.40	All minerals except coal
							Yr 2 - 13			Yr 2: \$55,000		
							Yr 3 - 13			Yr 3: \$115,000		
							Yr 4 - 8			Yr 4: \$165,000		
							Yr 5 - 8			Yr 5: \$200,000		

TENEMENT	PROJECT	STATE	REGISTERED HOLDER	COMMENCEMENT OF TERM	EXPIRY DATE	STATUS	AREA (Sub-blocks)	SECURITY		EXPENDITURE COMMITMENT (PA)	RENT (CURRENT TERM INCLUDING GST)	MINERALS
								REQUIRED	HELD			
EPM 26343	Western Creek	QLD	Ismins Pty Ltd (100%)	13-04-2017	12-04-2022	Granted	Yr 1 - 20 Yr 2 - 20 Yr 3 - 20 Yr 4 - 12 Yr 5 - 12	Nil (Note 1)	Nil (Note 1)	Yr 1: \$20,000 Yr 2: \$55,000 Yr 3: \$115,000 Yr 4: \$165,000 Yr 5: 200,000	\$3,116.00	All minerals except coal
EPM 26586	-	QLD	Ismins Pty Ltd (100%)	10-05-2018	09-05-2023	Granted	Yr 1 - 20 Yr 2 - 20 Yr 3 - 20 Yr 4 - 12 Yr 5 - 12	Nil (Note 1)	Nil (Note 1)	Yr 1: \$15,000 Yr 2: \$25,000 Yr 3: \$75,000 Yr 4: \$150,000 Yr 5: 200,000	\$3116.00	All minerals except coal

Notes: -

Note 1 – EPM 18775, EPM 19017, EPM 26268, EPM 26343 and EPM 26586 are all held under Environmental Authority (EA) number EPSX00656413. A total amount of \$5,000 is currently held against this EA via EPM 18775 (i.e. \$2,500) and EPM 19017 (i.e. \$2,500). Under this situation the tenement holder is not allowed to disturb any more than 1 Ha at any time across all 4 tenements unless additional security is lodged with DNRME.

## 2.0 PROPERTY CONDITIONS

## Variation of permit conditions approval EPM 18775

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29 April 2020

MMOL activity reference: EPM 18775

Ismins Pty Ltd  
Terra Search Pty Ltd  
PO Box 981  
Castletown  
**HYDE PARK QLD 4812**

Dear Sir/Madam

We are pleased to advise that pursuant to section 141C of the *Mineral Resources Act 1989*, approval to vary the permit conditions of Exploration Permit for Mineral (EPM) Number 18775 is given.

In your variation application you requested to vary Year 8 relinquishment schedule. In accordance with section 141C I have approved this variation. Refer below for details:

**Relinquishment schedule:** Year 8, retain 24 sub blocks.

**We recommend this letter be kept as a record that this variation of permit conditions has been approved and recorded on the register.**

**Note: the Department will, at all times, insist on strict compliance with all terms and conditions of the permit.**

### Where do I find more information?

There are a range of useful resources and support materials available to assist you from our website <https://www.business.qld.gov.au/industries/mining-energy-water/resources>. You can also download guidelines and policies on your resource permit obligations, land access and native title as it applies to mining and exploration activities.

If you have questions about this letter, or specific detail relating to the above permit contact the Mineral Assessment Hub on [MineralHub@dnrm.qld.gov.au](mailto:MineralHub@dnrm.qld.gov.au) or +61 (07) 4447 9230.

Regards  
Minerals and Coal  
Mineral Assessment Hub

## Variation of permit conditions approval EPM 26268

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29 April 2020

MMOL activity reference: EPM 26268

Ismins Pty Ltd  
Terra Search Pty Ltd  
PO Box 981  
Castletown  
**HYDE PARK QLD 4812**

Dear Sir/Madam

We are pleased to advise that pursuant to section 141C of the *Mineral Resources Act 1989*, approval to vary the permit conditions of Exploration Permit for Mineral (EPM) Number 26268 is given.

In your variation application you requested to vary Year 3 relinquishment schedule. In accordance with section 141C I have approved this variation. Refer below for details:

**Relinquishment schedule:** Year 3, retain 13 sub blocks.

**We recommend this letter be kept as a record that this variation of permit conditions has been approved and recorded on the register.**

**Note: the Department will, at all times, insist on strict compliance with all terms and conditions of the permit.**

### Where do I find more information?

There are a range of useful resources and support materials available to assist you from our website <https://www.business.qld.gov.au/industries/mining-energy-water/resources>. You can also download guidelines and policies on your resource permit obligations, land access and native title as it applies to mining and exploration activities.

If you have questions about this letter, or specific detail relating to the above permit contact the Mineral Assessment Hub on [MineralHub@dnrm.qld.gov.au](mailto:MineralHub@dnrm.qld.gov.au) or +61 (07) 4447 9230.

Regards  
Minerals and Coal  
Mineral Assessment Hub

## Variation of permit conditions approval EPM 26343

---

29 April 2020

MMOL activity reference: EPM 26343

Ismins Pty Ltd  
Terra Search Pty Ltd  
PO Box 981  
Castletown  
**HYDE PARK QLD 4812**

Dear Sir/Madam

We are pleased to advise that pursuant to section 141C of the *Mineral Resources Act 1989*, approval to vary the permit conditions of Exploration Permit for Mineral (EPM) Number 26343 is given.

In your variation application you requested to vary Year 3 relinquishment schedule. In accordance with section 141C I have approved this variation. Refer below for details:

**Relinquishment schedule:** Year 3, retain 20 sub blocks.

**We recommend this letter be kept as a record that this variation of permit conditions has been approved and recorded on the register.**

**Note: the Department will, at all times, insist on strict compliance with all terms and conditions of the permit.**

### Where do I find more information?

There are a range of useful resources and support materials available to assist you from our website <https://www.business.qld.gov.au/industries/mining-energy-water/resources>. You can also download guidelines and policies on your resource permit obligations, land access and native title as it applies to mining and exploration activities.

If you have questions about this letter, or specific detail relating to the above permit contact the Mineral Assessment Hub on [MineralHub@dnrm.qld.gov.au](mailto:MineralHub@dnrm.qld.gov.au) or +61 (07) 4447 9230.

Regards  
Minerals and Coal  
Mineral Assessment Hub

### **3.0 ALS ASSAY CERTIFICATES**



Australian Laboratory Services Pty. Ltd.  
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Page: 1  
Total # Pages: 3 (A - C)  
Plus Appendix Pages  
Finalized Date: 18- JUN- 2018  
Account: ISMINS

## CERTIFICATE TV18133120

Project: Cumberland

P.O. No.: 278761

This report is for 50 Rock samples submitted to our lab in Townsville, QLD, Australia on 7- JUN- 2018.

The following have access to data associated with this certificate:

JIM MCGREGOR- DAWSON

LEE SPENCER

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
PUL- 23	Pulv Sample - Split/Retain

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP61	33 element four acid ICP- AES	ICP- AES
Ag- OG62	Ore Grade Ag - Four Acid	ICP- AES
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Brett Wallbank, Laboratory Manager, Townsville



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Total # Pages: 4 (A - C)  
Plus Appendix Pages  
Finalized Date: 15- AUG- 2018  
Account: ISMINS

## CERTIFICATE TV18165306

Project: Cumberland

P.O. No.: 278762

This report is for 99 Rock samples submitted to our lab in Townsville, QLD, Australia on 11- JUL- 2018.

The following have access to data associated with this certificate:

JIM MCGREGOR- DAWSON

LEE SPENCER

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
PUL- 23	Pulv Sample - Split/Retain

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP61	33 element four acid ICP- AES	ICP- AES
Ag- OG62	Ore Grade Ag - Four Acid	
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Pb- OG62	Ore Grade Pb - Four Acid	
As- OG62	Ore Grade As - Four Acid	
Ag- GRA21	Ag 30g FA- GRAV finish	WST- SIM
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Brett Wallbank, Laboratory Manager, Townsville



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Plus Appendix Pages  
Finalized Date: 4- OCT- 2018  
Account: ISMINS

## CERTIFICATE TV18224551

Project: Cumberland

P.O. No.: 278763

This report is for 55 Rock samples submitted to our lab in Townsville, QLD, Australia on 11- SEP- 2018.

The following have access to data associated with this certificate:

JIM MCGREGOR- DAWSON

LEE SPENCER

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI- 21	Received Sample Weight
LEV- 01	Waste Disposal Levy
PUL- QC	Pulverizing QC Test
LOG- 22	Sample login - Rcd w/o BarCode
CRU- 21	Crush entire sample > 70% - 6 mm
PUL- 23	Pulv Sample - Split/Retain

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME- ICP61	33 element four acid ICP- AES	ICP- AES
Ag- OG62	Ore Grade Ag - Four Acid	
ME- OG62	Ore Grade Elements - Four Acid	ICP- AES
Pb- OG62	Ore Grade Pb - Four Acid	
As- OG62	Ore Grade As - Four Acid	
Au- AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Brett Wallbank, Laboratory Manager, Townsville



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Total # Pages: 3 (A - C)  
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Finalized Date: 23-JUL-2019  
Account: ISMINS

## CERTIFICATE TV19152010

Project: Cumberland

P.O. No.: 278764

This report is for 57 Rock samples submitted to our lab in Townsville, QLD, Australia on 24-JUN-2019.

The following have access to data associated with this certificate:

JIM MCGREGOR-DAWSON

LEE SPENCER

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-21	Crush entire sample
PUL-23	Pulv Sample - Split/Retain

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61	33 element four acid ICP-AES	ICP-AES
Ag-OG62	Ore Grade Ag - Four Acid	
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Ag-OG62h	High Grade Ag - 4-Acid	
ME-OG62h	Extended Ore Grade 4-Acid	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Peter Neville, Laboratory Manager



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Total # Pages: 2 (A - C)  
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Finalized Date: 9-SEP-2019  
Account: ISMINS

## CERTIFICATE TV19198059

Project: Cumberland

P.O. No.: 278767

This report is for 9 Rock samples submitted to our lab in Townsville, QLD, Australia on 12-AUG-2019.

The following have access to data associated with this certificate:

JIM MCGREGOR-DAWSON

LEE SPENCER

## SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
PUL-QC	Pulverizing QC Test
CRU-21	Crush entire sample
PUL-23	Pulv Sample - Split/Retain

## ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION	INSTRUMENT
ME-ICP61	33 element four acid ICP-AES	ICP-AES
Ag-OG62	Ore Grade Ag - Four Acid	
ME-OG62	Ore Grade Elements - Four Acid	ICP-AES
Au-AA26	Ore Grade Au 50g FA AA finish	AAS

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\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Peter Neville, Laboratory Manager



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Total # Pages: 6 (A - D)  
Plus Appendix Pages  
Finalized Date: 12-JUL-2019  
Account: ISMINS

### CERTIFICATE TV19154604

Project: Cumberland

P.O. No.: 278766

This report is for 172 Soil samples submitted to our lab in Townsville, QLD, Australia on 26-JUN-2019.

The following have access to data associated with this certificate:

JIM MCGREGOR-DAWSON

LEE SPENCER

### SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
SCR-42	Screen to -180 um, discard plus

### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
AuME-TL44	50g Trace Au + Multi Element PKG

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Shaun Kenny, Brisbane Laboratory Manager



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To: ISMINS PTY LTD  
C/- R.D. PERKES  
P.O. BOX 386  
CROWS NEST NSW 1585

Page: 1  
Total # Pages: 9 (A - D)  
Plus Appendix Pages  
Finalized Date: 22-OCT-2019  
Account: ISMINS

### CERTIFICATE BR19257621

P.O. No.: ALS SSF 278770

This report is for 300 Soil samples submitted to our lab in Brisbane, QLD, Australia on 14-OCT-2019.

The following have access to data associated with this certificate:

JIM MCGREGOR-DAWSON

LEE SPENCER

### SAMPLE PREPARATION

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
SCR-42	Screen to -180 um, discard plus

### ANALYTICAL PROCEDURES

ALS CODE	DESCRIPTION
AuME-TL44	50g Trace Au + Multi Element PKG

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Shaun Kenny, Brisbane Laboratory Manager



Australian Laboratory Services Pty. Ltd.  
32 Shand Street  
Stafford  
Brisbane QLD 4053  
Phone: +61 (7) 3243 7222 Fax: +61 (7) 3243 7218  
www.alsglobal.com/geochemistry

To: **ISMINS PTY LTD**  
**C/- R.D. PERKES**  
**P.O. BOX 386**  
**CROWS NEST NSW 1585**

Page: 1  
Total # Pages: 5 (A - D)  
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Finalized Date: 21-OCT-2019  
Account: ISMINS

**CERTIFICATE BR19257624**

P.O. No.: ALS SSF 278770  
This report is for 134 Soil samples submitted to our lab in Brisbane, QLD, Australia on 14-OCT-2019.

The following have access to data associated with this certificate:

JIM MCGREGOR-DAWSON

LEE SPENCER

**SAMPLE PREPARATION**

ALS CODE	DESCRIPTION
WEI-21	Received Sample Weight
LEV-01	Waste Disposal Levy
LOG-22	Sample login - Rcd w/o BarCode
SCR-42	Screen to -180 um, discard plus

**ANALYTICAL PROCEDURES**

ALS CODE	DESCRIPTION
AuME-TL44	50g Trace Au + Multi Element PKG

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

**Signature:**

Shaun Kenny, Brisbane Laboratory Manager