Geophysics and Drilling Collaborations Final Report

Deep Diamond Drilling Proposal

For
Homestead Project - EL 25192

Holder	ABM Resources NL
Operator	ABM Resources NL
Author	Alwin van Roij
Date	22/06/2017
Email	avanroij@abmresources.com.au
Target Commodity	Gold
Datum/Zone	GDA94 / MGA Zone 52
250,000 mapsheet	The Granites SF5203,
100,000 mapsheet	Frankenia 4857

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1. Summary

ABM Resources drilled a single diamond hole at the Homestead target in the South Tanami Project with the objective of testing an ionic leach geochemical anomaly interpreted to be a result of mineralisation below the Antrim Plateau Volcanics overlaying the wider South Tanami Project.

Soil sampling completed by ABM in 2012 comprised collection of material for ionic leach analysis. Sampling over the Homestead area was completed on a 500m x 500m grid spacing, and results for this area were amongst the highest returned for the 2012 field season. The Homestead target area had not been previously tested with surface geochemistry or drilling, and NTGS mapping for the area indicated the area is covered with transported materials. Nearby outcrop comprises Antrim Plateau Volcanics, and magnetic data supported the presence of flat lying magnetic material in the area.

The presence of a 1.6km x 1.3km multipoint geochemical anomaly, of a relatively high tenor, was puzzling and an application was submitted for a co-funded diamond drillhole.

The drillhole was aimed at resolving the depth of cover, and the presence and depth of Antrim Plateau Volcanics. It was anticipated that the volcanics could be relatively thin; thin enough to permit the upward passage of mobile metals leading to the presence of ionic-leach detectable-gold from Lower Proterozoic stratigraphy; either Dead Bullock Formation or Mt Charles Formation, below the Antrim Plateau Volcanics.

Drilling of hole HMRD100001 commenced on the 13th of May and was completed on the 19th of May at a final depth of 276.11m. The target stratigraphy was not intersected, and the hole was terminated 56m into Lower Proterozoic granite after ensuring this was the main granite body and not a narrow dyke.
The intersected stratigraphy comprised 153m of Antrim Plateau Volcanics, followed by 67m of Muriel Range siltstones and sandstones and 56m of Lower Proterozoic granite.

At the base of the Muriel Range siltstones and sandstones a 6.8 m polymictic conglomerate unit was intersected. Clasts within the polymictic conglomerate included granite and sediments. Multi-element and pXRF geochemistry of the sediments suggest that the sediments have the closest chemical affinity with the Mt Charles formation, and indicate more prospective host rock in the vicinity, albeit at depths greater than 219m.

The 6.8m of disseminated and blebby pyrite within the conglomerate and overlying mudstones at the base of the Muriel Range sediments does not satisfactorily explain the ionic leach anomaly generated by ABM's in house Deep Penetrating Geochemistry ('DPG') technique. The DPG methodology does not generate a discrete geochemical response for direct deeper drilling follow up work, and is rather likely more dispersed.

The revised interpreted geological section and results from historic drilling in the wider project area indicate the potential for prospective stratigraphy to exist under the Antrim Plateau Volcanics and Muriel Range sediments. Without a geochemical technique to effectively predict under cover mineralisation, further exploration will require better mapping and geophysics to determine the likely thickness of these units to prioritise more cost effective exploration in areas of lesser cover sequence.

2. Contents

3. Introduction

The Homestead target is located on EL 25192. EL 25191, 25192, and 28785 form ABM Resources NL (ABM), 'South Tanami' project which is located approximately 550 km northwest of Alice Springs in the north Tanami Region of the Aileron Province. It falls within the The Granites 1:250,000 map sheet SF5203, and the Frankenia 1:100,000 map sheet 4857.

The project is located on Aboriginal Freehold land. The Tanami Downs cattle station covers the majority of the South Tanami project area, and is owned and managed by the Central Land Council (CLC), although currently in receivership. ABM maintains a good relationship with the CLC and Tanami Downs station manager and caretakers.

In 2011 an Indigenous Land Use Agreement covering EL 25191, 25192 and 28785 was successfully negotiated by ABM with the CLC on behalf of the traditional owners. The tenements were granted to ABM, a publicly listed company, in January and September 2012.
ABM further consolidated holdings by acquiring a 90% interest in EL26628 (amongst others) from Altura in 2015, and by progressing tenements EL25156, EL29832 and EL29859 to grant in October 2016 (Figure 1).

Newmont holds the majority of the surrounding tenure, with the Callie operations to the east, Oberon to the north-east, and the Officer Hill exploration target to the south. Northern Star holds additional tenure towards the north-west in proximity to their Central Tanami operations.

The Homestead target is situated at 129°39'20.16" -20°27'18.72" (GDA94), approximately 30km west of the Newmont operated Callie mine site. Access to the project is via the Tanami Highway, and along the 51km access road to the Tanami Downs station. Access to the drill site is then 15km northwest via station and exploration tracks.

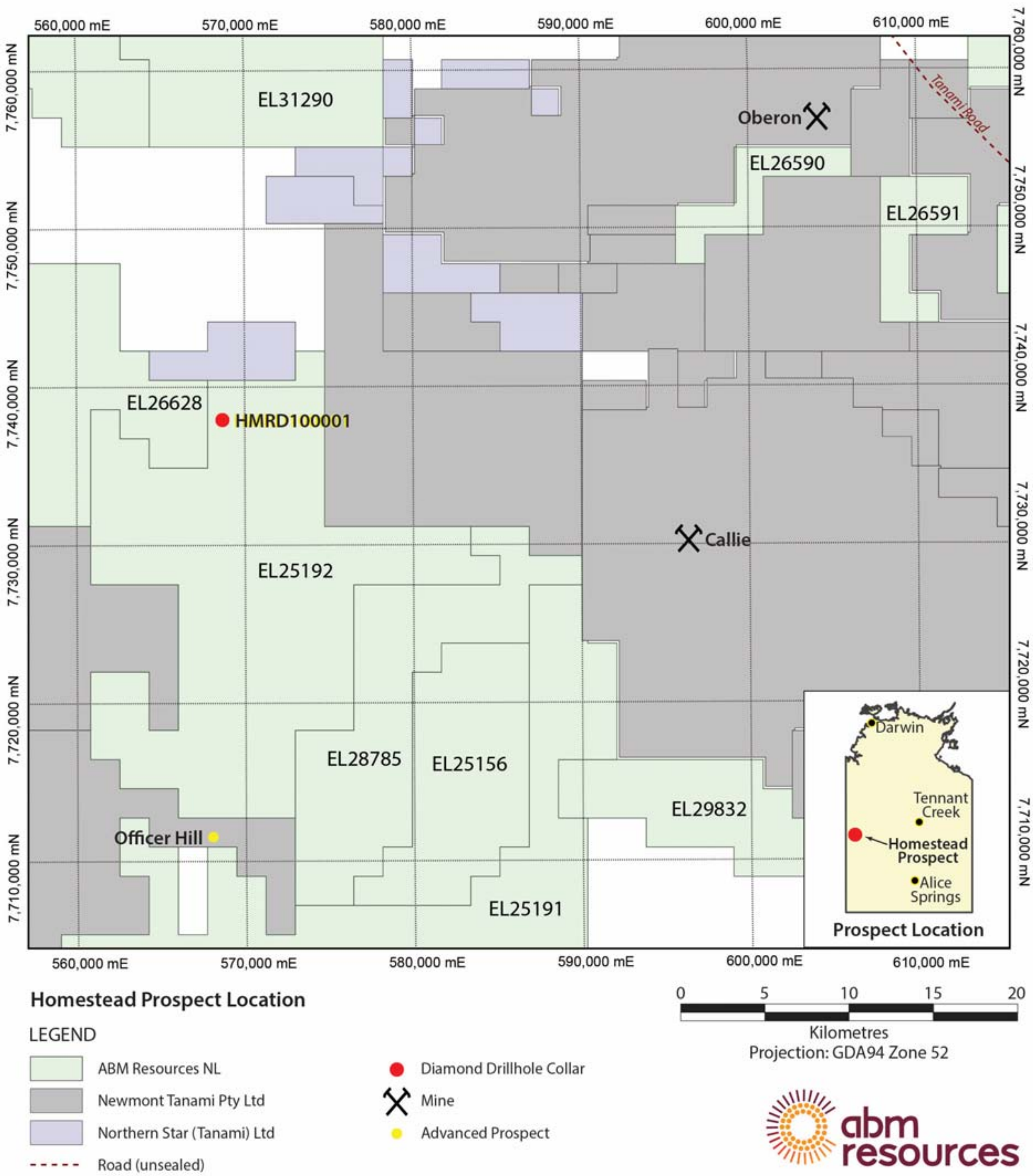


Figure 1. Location of the Tanami Downs Station and ABM diamond drilling location.

The majority of the project area is flat sand covered plains with slight undulating lateritic rises. Outcrop consists of sparsely scattered calcrete marking a major palaeo-drainage possibly developed on Cambrian limestone. Vegetation is typically spinifex with acacia scrub and scattered small eucalypts.

4. Regional Context

4.1 Regional Geology

The Tanami Region of the Northern Territory and Western Australia (Ahmad et al 2013a, b) is centred around 600 km northwest of Alice Springs and forms part of the Archaean and Palaeoproterozoic basement of the composite North Australian Craton (Figure 2); Myers et al 1996, Cawood and Korsch 2008).

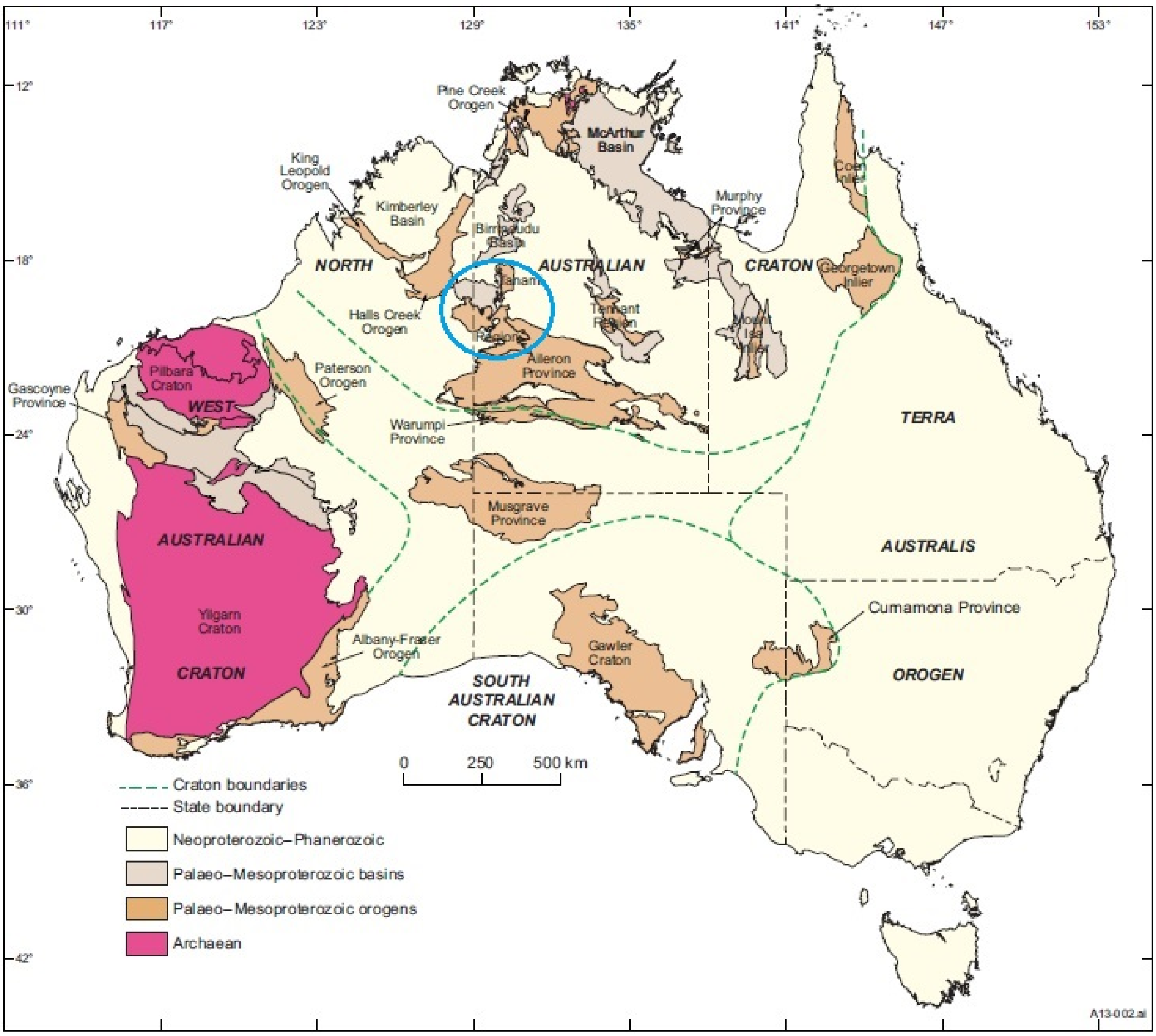


Figure 2; Simplified tectonic map of Australia showing craton boundaries and major regions of Archaean and Palaeo-Mesoproterozoic rocks. Tanami Region circled. Geological regions after Hutchison (2012); craton boundaries after Cawood and Korsch (2008). From Ahmad & Scrimgeour (2013).

While the tectonic configuration of the Tanami Region and relationship to adjoining crustal elements is the subject of current speculation (Lyons et al 2006, Bagas et al 2008, 2009, 2014, Huston et al 2007, Goleby et al 2009, Vandenberg 2016), the Palaeoproterozoic evolution of the Tanami Region is generally understood to have occurred in a continental passive margin back-arc setting that was fundamentally influenced by tectonic events in the adjacent Halls Creek Orogen to the northwest (Tyler et al 1999, Sheppard et al 1999, Griffin et al 2000) and Arunta Region to the south (Scrimgeour 2003, Crispe et al 2007, Bagas et al 2008, 2014, Ahmad et al 2013b, Vandenberg 2016). Although the general tectono-stratigraphic evolution of the region is reasonably well established through the efforts of recent multi-disciplinary studies (Crispe et al 2007, Huston et al 2007, Ahmad et al 2013b), there is also considerable debate as to the accuracy of stratigraphic correlations across the Tanami Region (Piranjo and Bagas 2008, Bagas et al 2008, 2009, 2014) and their implication regarding basin formation events, evolution and consequently metallogenic fertility.

The lithostratigraphic framework of the Tanami Region has evolved considerably since the first efforts that placed all of the folded metamorphic rocks above the Archaean basement into the ‘Tanami Complex’ and defined five subunits of possible lateral equivalence (Blake 1978; Blake et al 1979). Gold mining at The Granites, Tanami and Dead Bullock Soak areas led company geologists to develop informal lithostratigraphic frameworks, and inconsistencies in the original framework were noted (Nicholson 1990, Mayer 1990, Lovett et al 1993, Tunks and Marsh 1998, Smith et al 1998). Formal definition of a revised lithostratigraphy started when Cooper and Ding (1997) recognised the Tanami Group as the oldest unit within the folded metamorphic rocks and this culminated in regional mapping and stratigraphic revision by NTGS (Hendrickx et al 2000a; Crispe et al 2007, Ahmad et al 2013b). It is recognised that a plethora of informal names used during exploration and mining continue to be used by workers in the region.

The lithostratigraphic framework of Crispe et al (2007) and Ahmad et al (2013b) has been adopted here with revisions that incorporate reassessment of existing geochronological data with more recent work by ABM Resources geologists, including integration of regional seismic data (Figure 3; Lyons et al 2006, Goleby et al 2009) with current mapping to update basement interpretations (Figure 4).

The oldest Palaeoproterozoic stratigraphic element overlying Archaean basement is the *Mount Charles Formation* (~1910 Ma), a succession of basalt flows interbedded with sedimentary rocks and host to gold deposits of the Tanami goldfield. The *Mount Charles Formation*, with tholeiitic back-arc geochemical affinities (Tunks 1996, Bagas et al 2008, Lambeck et al 2010), may provide evidence for early rifting and basin formation at ~1910 Ma. This basin phase possibly formed in response to proposed collision and obduction of Tanami Archaean crust over subducting Archaean crust of the Arunta Region from the south (Goleby et al 2009) at the positon marked by the Willowra Gravity Ridge of Flavelle (1965). Current crustal thicknesses are consistent with continent-continent collision (Goleby et al 2009). This was followed by southeast directed convergent tectonism between the Kimberly and North Australian cratons at ~1865-1850 Ma (Tyler et al 1999, Sheppard et al 1999, Griffin et al 2000, Bodorkos et al 2002) resulting in deposition of *Tanami Group* from ~1865 Ma in a continental back-arc setting on extending (Tanami basin) Archaean basement crust (Hendrickx et al 2000a,b, Crispe et al 2007, Bagas et al 2008, 2014). The convergence culminated in collision and amalgamation of the two cratons at ~1835-1810 Ma, and development of a fold-and thrust belt though the Tanami Region. Subsequent events may have reactivated fundamental northwest-southeast trending crustal structuring. The Stafford Event at ~1800 Ma is an important gold mineralising event with contemporaneous granite intrusion and deformation. Further tectono-metamorphism followed during the Yambah Event at ~1774 Ma during southwest-northeast directed crustal shortening, possibly associated with the collision and amalgamation of the West and North Australian Cratons, and with some indication of local gold mineralisation in the Ware Group. Significant tectono-metamorphism and reactivation appears to have occurred during the Strangways Event ~1730-1690 Ma, which is most evident through the Willowra Gravity Ridge and many of the major fault networks through the Tanami (Fraser 2002, 2003, Vandenberg 2016). Minor reactivation of large fault structures may have accompanied the Liebig Event at ~1630 Ma, while the later Chewings Orogeny at ~1590-1560 Ma appears to have had only minor effects in the Tanami Region (Fraser 2002, 2003, Vandenberg 2016).

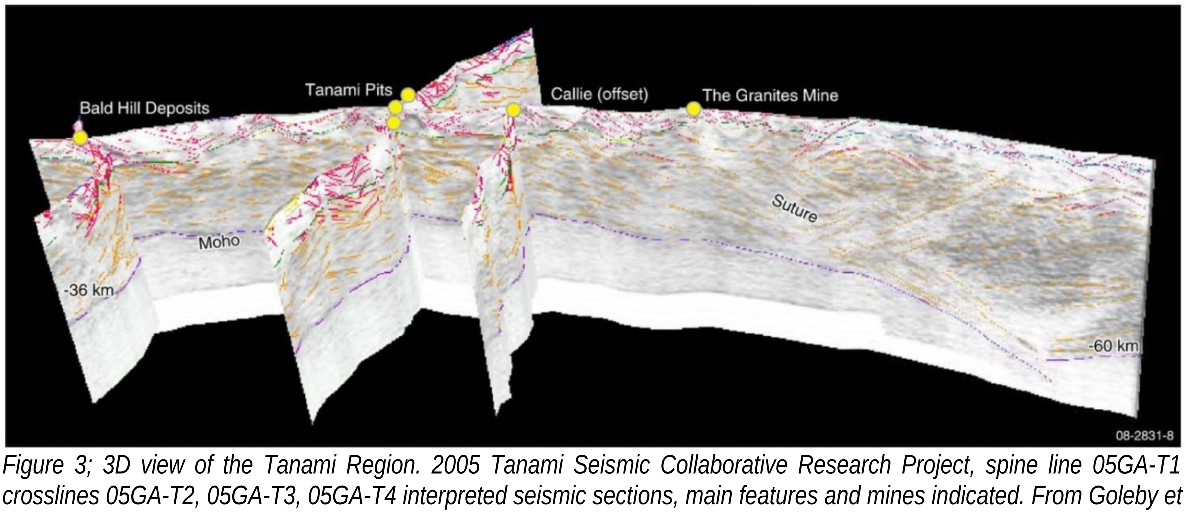


Figure 3; 3D view of the Tanami Region. 2005 Tanami Seismic Collaborative Research Project, spine line 05GA-T1 & crosslines 05GA-T2, 05GA-T3, 05GA-T4 interpreted seismic sections, main features and mines indicated. From Goleby et al (2009).

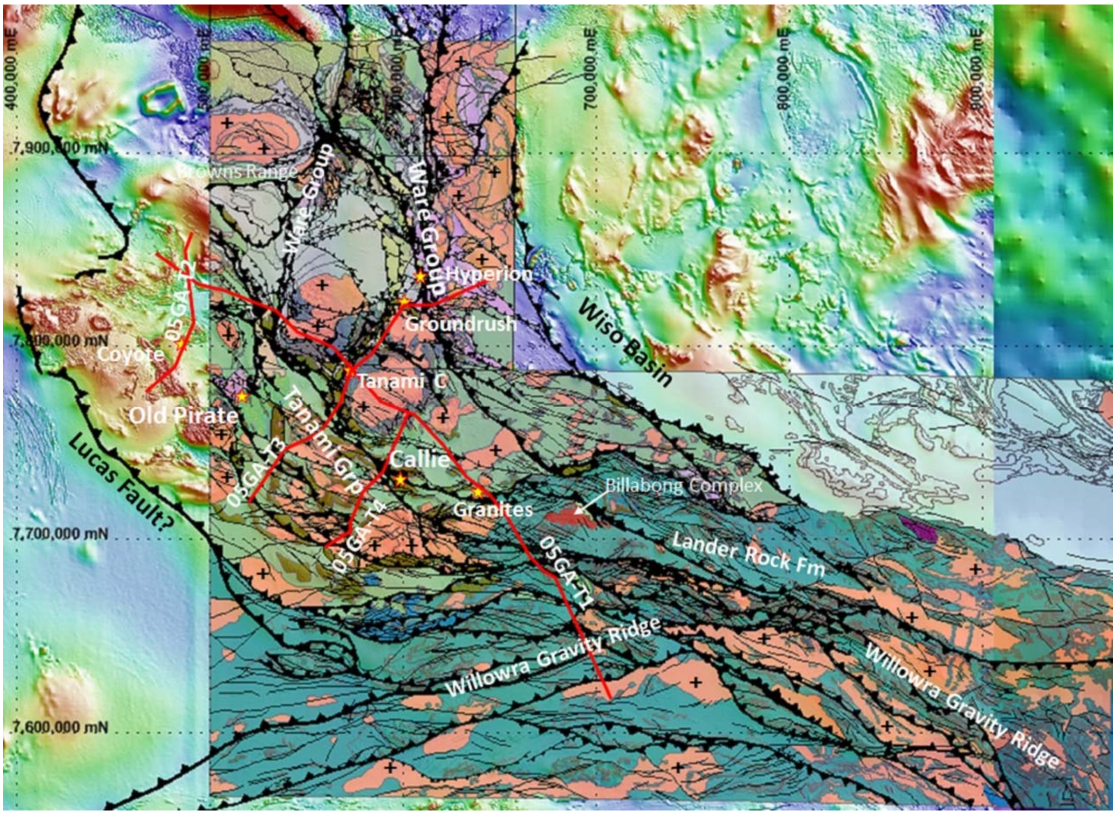
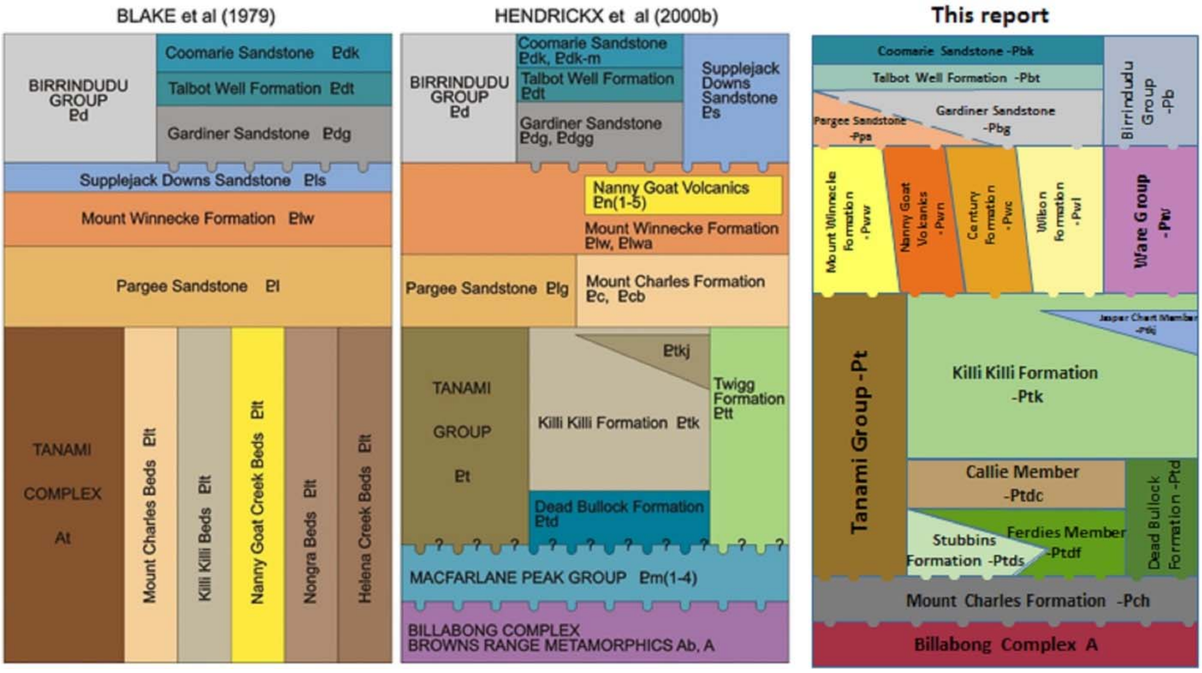


Figure 4. Solid Geology Basement Interpretation of the Tanami & Northern Arunta regions. Overlain on regional aeromagnetic data (TanamiRegional_tmirtp_nesun_wetlook). Main mines, seismic traverses indicated.

A revised stratigraphic column (after Ahmad et al 2013b) with a comparison to previous stratigraphic schemes is provided in Table 1. The reader is referred to Ahmad et al (2013b) for detailed descriptions of stratigraphic units and constituent lithofacies. Broadly, the Tanami Region comprises Archaean gneissic basement (~2514 Ma) overlain by lower greenschist facies mafic, sedimentary and volcano-sedimentary rocks of the *Mount Charles Formation* (~1910 Ma), lower greenschist- to amphibolite facies metamafic, metasedimentary and volcanic rocks of the Tanami (~1865-1831 Ma) and Ware (~1824- 1815 Ma) groups, an isolated granite ~1844 Ma and numerous granite bodies that intruded during the period 1825–1790 Ma (Figure 4). These rocks are unconformably overlain by the Mesoproterozoic *Pargee Sandstone* and Birrindudu Basin to the north, Neoproterozoic Murraba Basin and Palaeozoic Canning Basin to the west, sub-aerial flood basalt of the Cambrian Kalkarindji Province, and the middle Cambro-Ordovician Wiso Basin to the east (after Ahmad et al 2013b).

Table 1 Revised stratigraphic column with a comparison to previous stratigraphic schemes (after Ahmad et al 2013b).



A general northwest-southeast trend and possible cyclicity in spatial and geometrical associations of tectono-stratigraphic elements, major structures and intrusive bodies in the Tanami Region form a regional metallogenically fertile accommodation zone. This configuration possibly reflects imposition of old meridional, whole-of-crust architectural controls on the Tanami Region.

The Granite-Tanami Orogen (GTO; Bagas *et al* 2010) includes the Tanami Supergroup, Ware Group and associated intrusive rocks. Younger Meso- to Neoproterozoic cover sediments overlie the GTO. Archaean basement to the GTO does not occur in the South Tanami area.

The Tanami Supergroup is divided into the Dead Bullock Group and the Killi Killi Formation. The Dead Bullock Group is a shale-dominated turbidite succession, occasionally iron-rich with minor chert beds (Bagas *et al*, in prep; Crispe *et al*., 2007). The Dead Bullock Group exceeds 1 km in stratigraphic thickness. The upper Dead Bullock Group becomes sandier as it transitions into the Killi Killi Formation. The transition is likely to be a result of changing provenance rather than depositional environment. The ~4 km Killi Killi Formation is a sand-dominated turbidite succession with thinly- to thickly-bedded, interbedded sandstones, siltstones and claystones (shale-topped sands, STS). Some thicker siltstones/claystones (mega-shales) and amalgamated coarse channel sands, averaging 15 m respectively, punctuate the STS. Dolerite sills and dykes commonly intrude the Upper Dead Bullock Group and Killi Killi Formations.

A tuffaceous sandstone in the Dead Bullock Group returned a U-Pb SHRIMP zircon age of 1,838.4+/-6.4 Ma (Cross & Crispe, 2007). The Killi Killi Formation overlies the Dead Bullock Group and was deposited prior to the Ware Group. The Tanami Supergroup was metamorphosed to greenschist and amphibolite facies.

The Ware Group comprises the fluvial Century Formation and the Wilson Formation sandy turbidites. The Century Formation has a maximum depositional age of 1,823+/-4 Ma based on SHRIMP U-Pb dating of detrital zircons (Cross & Crispe, 2007). U-Pb dating of detrital zircons yielded a maximum depositional age of 1,815+/-13 Ma from the Wilsons Formation (Cross & Crispe, 2007). At least three phases of granitic intrusions occur within the GTO.

The Pargee Sandstone is a thick succession of interbedded fluvial conglomerate, pebbly sandstone, quartz arenite and minor siltstone. The Pargee Sandstone has a maximum depositional age of 1,768+/-14 Ma (Cross & Crispe, 2007).

The Gardiner Sandstone is a cover succession of marginal marine sandstones containing herringbone cross stratification, ripple marks, intraformational conglomerates and halite pseudomorphs. Gardiner Sandstone is characterised by medium to thick bedded sublithic to lithic arenite and quartz arenite. Shale and siltstone are subordinate and conglomerate is common at the base. Sandstones are mostly medium grained, crossbedding and ripple marks are common throughout, and mudcracks and synaeresis cracks are locally developed.
Younger flat-lying Cambrian Basalts are also preserved as platform cover in areas protected from erosional stripping. Tertiary palaeochannels reach 10 km wide and greater than 100m deep.

Talbot Wells Formation is a recessive unit characterised by chert, and also includes sublithic arenite, quartz arenite, laminated siltstone, shale and minor limestone. Chert is commonly stromatolitic indicating it is silicified limestone or dolomite.

Coomarie Sandstone is lithologically similar to Gardiner Sandstone and is characterised by sublithic arenite and minor quartz arenite. South of Browns Range, magnetic data is interpreted to indicate the presence of a thin basalt horizon with approximate thickness of ~200 m within Coomarie Sandstone. This unit is mapped in first edition 1:250 000 geology mapping as laterite capped Antrim Plateau Volcanics overlying Coomarie Sandstone (Blake et al 1979).

4.2 Project Area Geology

Outcrop within the South Tanami magnetic complex is restricted to low calcrete rises marking a major palaeo-drainage channel, and rare pisolithic laterite sub-outcrops. Further to the south, scattered rubbly outcrops of porphyritic basalt of the Antrim Plateau Volcanics occur.

The lack of outcrop over the South Tanami project results in geological interpretation mainly to be inferred from geophysical data and regional context. Outcrop and detailed mapping and drilling at Callie and Officer Hill provide the nearest convincing geological fact mapping. The project area is interpreted to be underlain by the Paleoproterozoic Dead Bullock and the Killi Killi formations (Figure 5). The Dead Bullock Formation consists of thick siltstone beds, occasionally iron rich, and with minor cherts, intercalated with numerous dolerite sills. The younger Killi Killi Formation consists of mostly sandstone, greywacke and thinner siltstones in a well-defined turbidite sequence. Into these sedimentary packages, several granitoid intrusions; interpreted of Paleoproterozoic age; have been emplaced. Locally, these units are overlain by Cambrian Antrim Plateau Basalts of various thickness. Cenozoic laterite, silcrete, calcrete, and Quaternary debris including Aeolian sand cover a large portion of the project.

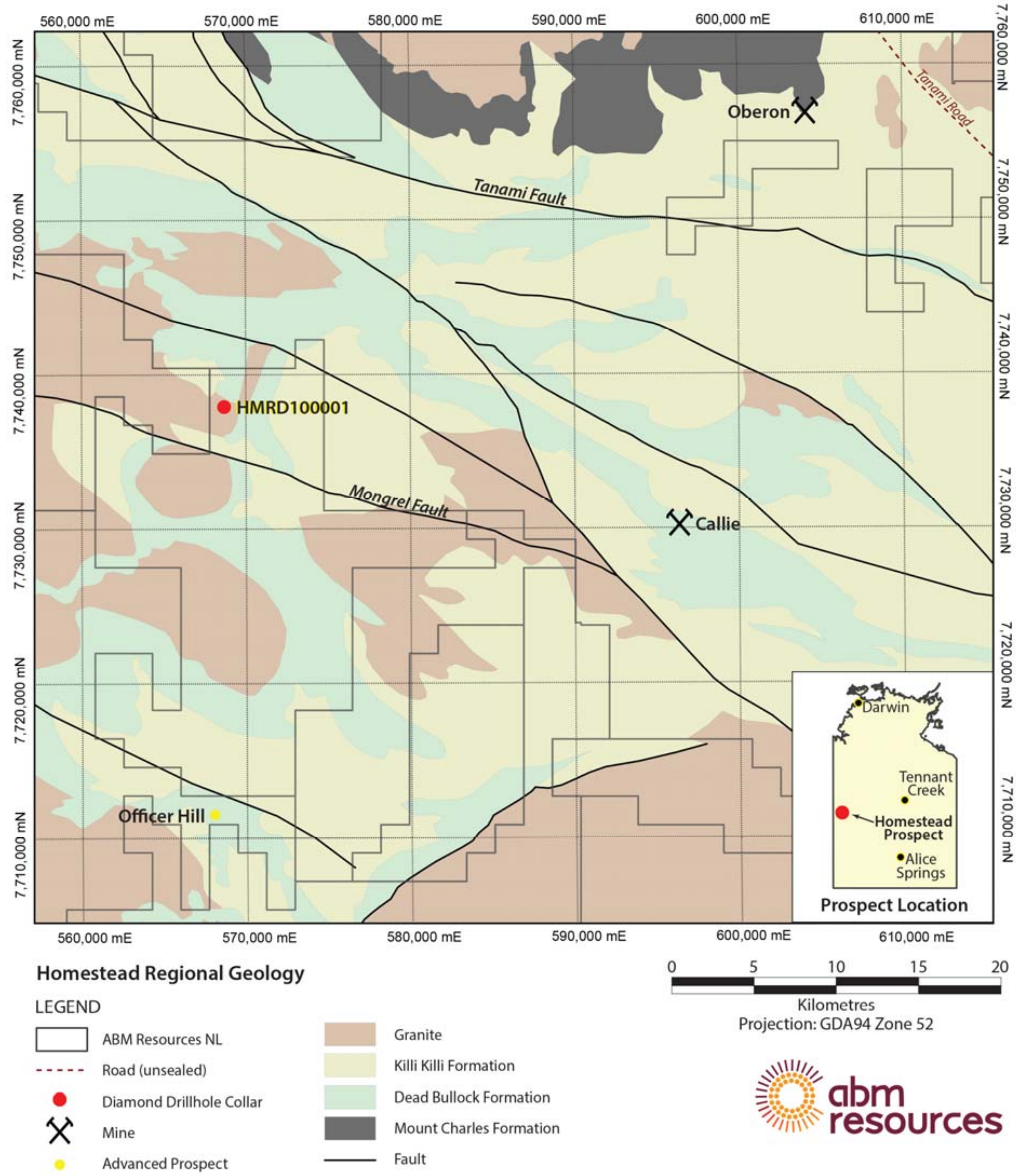


Figure 5, interpreted basement geology – 1:250,000k The Granites sheet.

5. Previous Exploration

North Flinders, Zapopan (and partners of the Tanami Joint Venture), and subsequently Normandy NFM, have extensively explored the wider South Tanami Project, specifically around the Officer Hill prospect where Antrim Plateau Volcanics are not present. Previous exploration over the wider South Tanami Project is not covered here, but is summarised in ABMs 2017 South Tanami group report GR269 (Rohde, 2017).

Historic tenements covering the current Homestead target area and an approximately 15km radius are EL 2368, EL 6446, and EL 8186.

Three historic tenements are known. EL2368 was held by North Flinders Mines until 1990 (CR#'s 1985-0133, 1986-0106, 1986-0308, 1988-0103, 1988-0327, 1989-0037 and 1990-0121). EL6446 was held by Zapopan (and partners in the Tanami JV) between 1990 and 1992 (CR#'s 1990-0296 and 1992-0259). North Flinders Mines, and subsequently Normandy NFM, again held the ground as part of EL8186 between 1996 and 1998 (CR#'s 1996-0096, 1997-0034 and 1998-0279).
All efforts were directed to identify potential Callie-style gold mineralisation in Mt Charles Formation or Dead Bullock Formation stratigraphy.

5.1 EL2368

On EL2368 and within the project area, North Flinders Mines conducted limited geological reconnaissance, drilled two vertical percussion drill holes, and two vertical diamond drill holes to test a large non-outcropping magnetic anomaly. Work also included assays, petrological examination of percussion and core samples, and magnetic susceptibility measurements. The most detailed summary of this work is described in CR1989-0037.

As a result of the percussion and diamond drill holes, the area is now known to be underlain by a variable thickness of weakly to moderately magnetic basalt as part of the Antrim Plateau Volcanics suite. The basalt is typically fresh and fine to medium grained with occasional altered 'glassy' patches that can possibly be interpreted as chilled flow margins.
The basalt is underlain by a variable thickness of undeformed and unmetamorphosed thinly bedded siltstone, mudstone and minor sandstone, and occasional matrix supported debris flows. The age of these sediments is unclear, but have been tentatively correlated with the Adelaidean Muriel Range Sandstone (Chadwick, 1988).

Below variable thicknesses of Antrim Plateau Volcanics and flat lying sediments, a limited number of historic drill holes have intersected variably magnetic schist units. The dominant lithology encountered was a quartz-chlorite-sericite schist with variable development of iron and alumina rich mineralogies in the form of andalusite, staurolite, cordierite, biotite and garnet porphyroblasts. Magnetite occurs disseminated throughout most of the rock types and occurs occasionally in narrow magnetite rich (>15%) bands. Minor calc-silicate bands comprising quartz-epidote-diopside +/- calcite occur throughout many of the units, although they are volumetrically minor. Petrological reports note the presence of two probable volcanic lithologies.
Amphibole bearing lithologies are a minor constituent of the rock types encountered and are restricted to a narrow (<20m) interval. A sulphide bearing graphite schist occurs immediately below the amphibole unit. Minor pyrite and chalcopyrite occur throughout all lithologies as fine disseminated grains and minor stringers, fracture coating and trace irregular masses associated with late quartz veining.
The variably magnetic schist was interpreted as Mt Charles Formation, although it identified that Mt Charles beds are typically almost entirely meta-sedimentary in origin.

5.2 EL6446

The Tanami JV, between Zapopan, Kumagi Gumi and Kintaro Metals, explored EL6446, also encompassing Mineral Claims S124-S153. As part of this work, a north south oriented strong magnetic ridge was modelled from 4.9 line kilometres of ground magnetics on the tenement, and an additional 8.4 line kilometres of traverses over the mineral claims. Magnetic modelling indicated steeply dipping magnetic sediments (interpreted to be comparable with the Dead Bullock Formation). This was subsequently drill tested by two diamond drill holes. Summaries of the work are available from the final report for the tenement in CR1992-0259, and CR1992-0365 reporting on the mineral claims.

Drilling by the Tanami JV intersected the same units as drilling by North Flinders, but failed to penetrate through the undeformed and unaltered sequence of siltstone, mudstone, and minor sandstone and conglomerate. Intersected lateritic overburden varied between 13 – 19m, whilst Antrim Plateau Volcanics were more erratic, with TDDH1 intersecting basalt down to 63m and TDDH2 continuing in Antrim Plateau Volcanics down to 157.6m (Zapopan, 1992a).
Whilst the interpreted Adelaidean, Upper Proterozoic unit underlying the Antrim Plateau Volcanics was not the target horizon, results from TDDH1 include elevated gold and rare earth (maximum of 0.54ppm gold) from a 5m clay / sericite altered zone with contorted quartz-carbonate veins. TDDH1 was terminated at a depth of 265.4m, and TDDH2 at a depth of 176.2m. Zapopan further postulates that the unit could possibly be Middle Proterozoic (Carpentarian) as it rests unconformably on the lower Proterozoic (Zapopan, 1992b).

5.3 EL8186

EL8186 covers the current South Tanami project and was reapplied for by North Flinders Mines in 1993 after Zapopan relinquished the ground. North Flinders subsequently changed company name to Normandy NFM Limited. A summary of the work conducted is given in CR1998-0279.

Exploration on EL8186 comprised an airborne magnetic survey and ground gravity & radiometric survey to allow drill testing to be focussed on parts of the tenure which were likely to yield effective results.
550 vacuum holes were completed for 4,652m over 10 traverses, sampling the lag horizon below the windblown sand, and at the end of the hole, aiming to sample and identify bedrock.
Six vertical RAB drillholes were subsequently drilled, designed to penetrate the Antrim Plateau Volcanics. Hole depth ranged from 37m to 85m, with each hole encountering large amounts of water.
Drilling intersected colluvium and laterite (considered in situ) between 6 – 40m above Antrim Plateau basalts (Longmire and Adrichem, 1998).

The RAB drilling proved ineffective in penetrating through the weakly to non-magnetic basalt cover sequence. No anomalous results were returned from end of hole samples.

None of the historic drilling has targeted the Homestead prospect area and no economically mineralised grades were reported in any previous exploration. The location of previous drilling is presented on Figure 3.

5.4 EL25192

No exploration was undertaken between 1998 and 2012 until ABM acquired tenure over the project area. ABM completed soil sampling over the South Tanami project in 2012 (GR- 269-13).

Soil samples were collected and analysed using ABMs innovative soil sampling method successfully trialled over the buried Buccaneer project in 2011. This ‘Deep Penetrating Geochemistry’ (DPG) method relies on vertical ion transfer, sampled at a specific depth within the soil profile, and analysed using low detection weak leaching lab analysis. The vertical ion transfer and successful detection of loosely bonded ions theoretically allows detection of mineralisation or pathfinder elements through cover.

Surface soil samples were 500m x 500m spaced over the Homestead Target, and 1km x 1km spaced over the wider South Tanami Project. Surveys were designed to identify potential zones of anomalism prior to committing to the required deep drilling to penetrate through Antrim Plateau Volcanics.

The geochemical survey over Homestead shows a convincing geochemical anomaly over 4.18 square kilometres (Richards, 2012a). The anomalous ionic leach gold results range from 1.12 ppb through to 0.4 ppb, and therefore constitute a stronger response than the maximum of 0.36 ppb reported from the much denser sampled Buccaneer trial study. The ionic leach results, due to their extremely low detection limits, are displayed as unequal percentages (Figure 6).

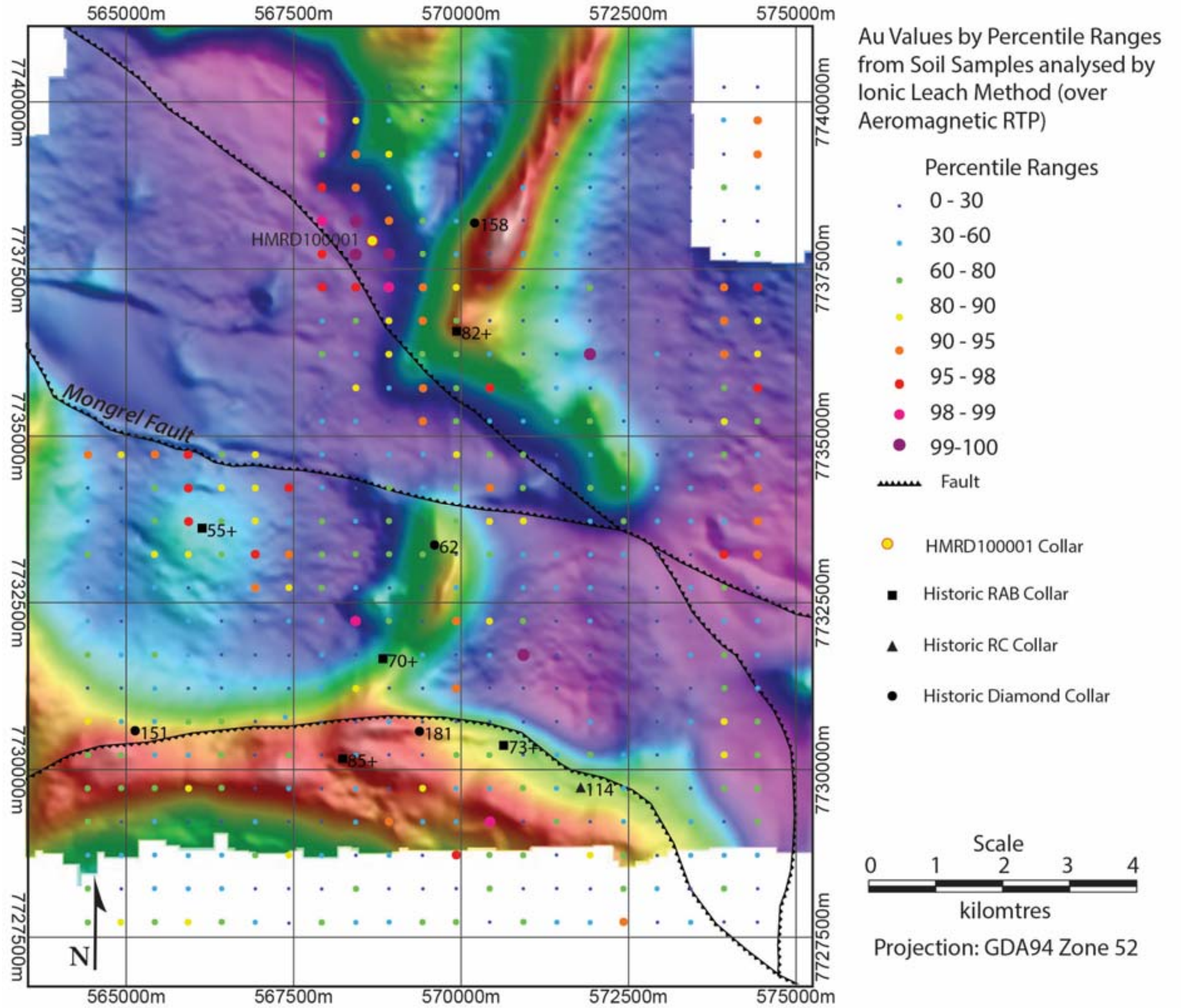


Figure 6. Gold response from ML_GS1 over magnetics. The results are thematically mapped using unequal percentiles (0/30/60/80/90/95/98/99/100%).

The Ionic leach results highlight a broad anomaly on the contact between an interpreted granite and low-magnetic stratigraphy with overlying basalt, north of the Mongrel fault.

The elevated gold response is spatially coincident with elevated (above background) Ag, Cu and Mo; although these elements also highlight an additional more linear anomaly towards the south of the survey (Figure 7).

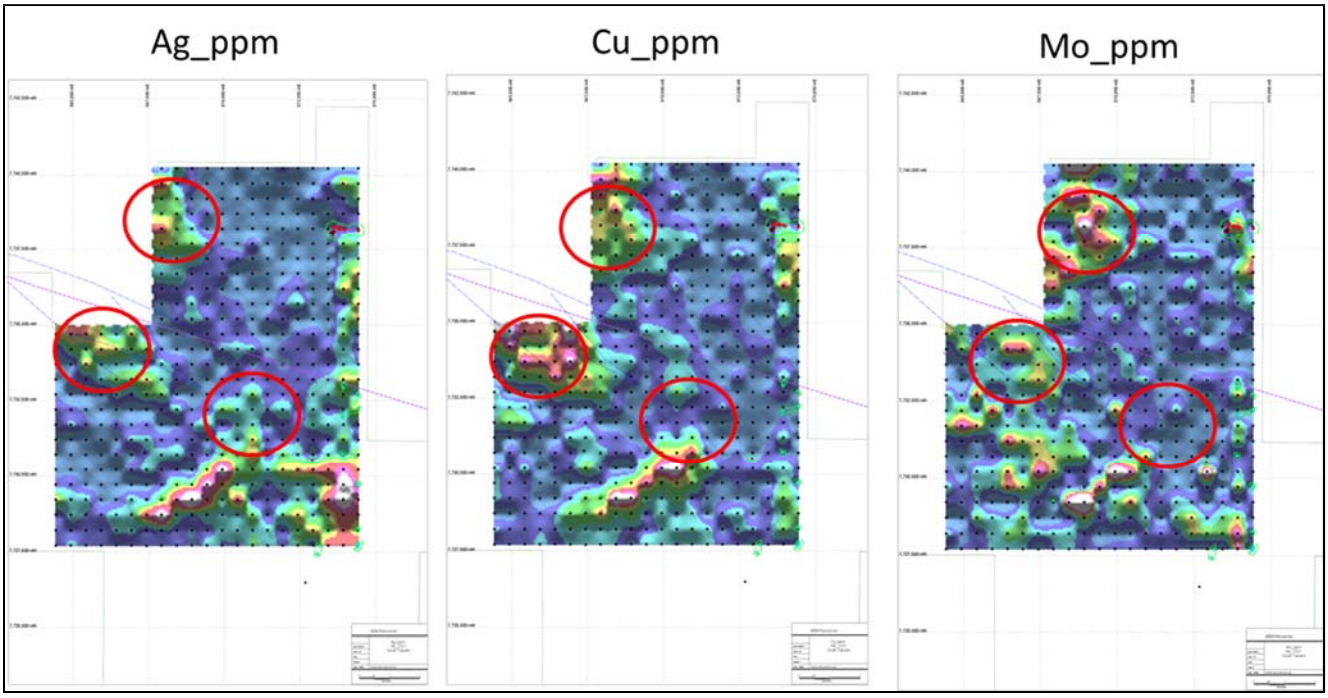


Figure 7. Mineralisation pathfinders showing spatial response across the Homestead geochemical survey. Red circles refer to best god anomalism from Figure 6.

6. Exploration Concept

Previous exploration in the area has been largely driven by the assumption that all mineralisation is hosted in strongly magnetic sediments, so exploration should target linear magnetic features. This exploration strategy was used to the east and south of Homestead; this approach has met with the drilling of large thicknesses of basalt, Upper Proterozoic sediments, and returned a single anomalous result of 0.542ppm gold (Zapopan, 1992).
ABM has outlined a strong, multipoint, multi-element surface geochemical anomaly to the west of the magnetic high feature, which at this stage is untested and cannot be explained without drilling.

The anomalism has been detected using Ionic Leach techniques which utilise weak digests, nominally to liberate metals which are either adsorbed or weakly bonded to the sample matrix, followed by very low detection assay techniques. Effectively, Ionic Leach aims to detect buried mineralisation through detection of weak, hydromorphic haloes above mineralised rock.

It is unlikely that the anomaly observed at Homestead represents a hydromorphic dispersion halo generated through greater than 100m of barren basalt cover. From this it follows that the anomaly:

- is a result of mineralisation contained within the cover Antrim basalt (which is thought highly unlikely and is unprecedented in the Tanami);
- is explained by the basalt being sufficiently thin to allow upward dispersion of metals;
- is a result of a particularly high grade source of metal existing beneath thick basalt cover or;
- has been mechanically transported.

The proposed drilling aims to test three of these options.

The results of the drilling will be able to determine whether mineralisation could occur within the cover basalt unit, indicate the thickness of the cover basalt itself, and indicate the presence of favourable lithologies or vectors to mineralisation.

In addition the proposed drilling will likely contribute important information to the understanding, which is currently lacking, of the stratigraphy present at the site. Intersection of significant thickness of basalt will significantly downgrade the target area and a rationalisation of the tenement holding may be warranted.

The Homestead target lies on the eastern margin of a significant northwest trending gravity high (Figure 8). Gravity response reflects deep geological features, and in this case is interpreted to represent a series of basement blocks. An additional northwest trending gravity high exists to the south of Homestead. Callie is located on what appears to be the continuation of the first gravity block. It is interpreted that the breaks between these gravity highs depicted on Figure 8 represent significant, deep transform faults. These possibly formed during an initial extensional back-arc basin forming phase that started during the early stages of the ~1865-1850 Ma Kimberly –North Australian Craton (NAC) convergence. These structures are thought to be long lived and active throughout the Tanami's mineralisation history, with the easternmost structure possibly having acted as a deep fluid pathway for mineralised fluids associated with the Callie system. Although extremely difficult to prove, it is possible that the subsequent fold-and-thrust systems exploited and inverted the earlier basin-forming normal-fault structures (Vandenberg 2016).

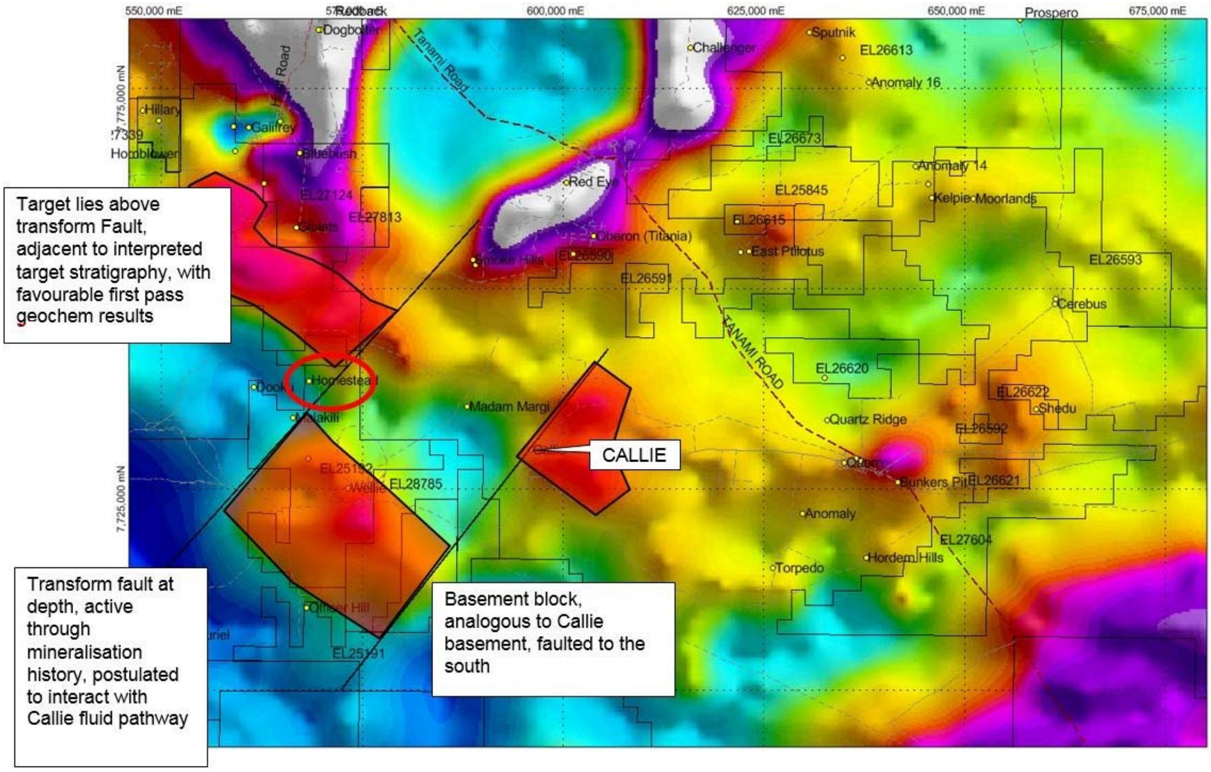


Figure 8, regional bouguer gravity with interpreted transfer structures.

The Homestead geochemical anomaly falls on an area of relatively subdued magnetic response (Figure 6). The magnetics in this area show short, low amplitude/high frequency textures indicative of a thin, flat, variably magnetic unit. To the east and south, there are several significant linear magnetic anomalies. These have been tested by North Flinders and Zapopan, and intersected variably magnetic Antrim Plateau Volcanics, non-magnetic flat lying sediments, and variably magnetic schists interpreted to correlate to the Mt Charles Formation. The geophysical data at Homestead is considered different to these responses, and whilst the Antrim Plateau signature is recognised, little is known about the stratigraphy underneath the Homestead geochemical anomaly. The larger magnetic low to the southwest likely indicates granite, with the Homestead target located close to its contact. A large thrust structure is interpreted from magnetic and seismic data to run directly through the Homestead anomaly. A schematic cross section interpretation has been prepared prior to commencing drilling (Figure 10).

Figure 9 highlights the historic drilling and depths of basalt cover encountered within the area over the NTGS 250k basement interpretation of the The Granites map sheet. All historic drilling has targeted the magnetic highs interpreted to represent Mt Charles Formation (Figure 6), but only two holes achieved the targeted stratigraphy at depth.

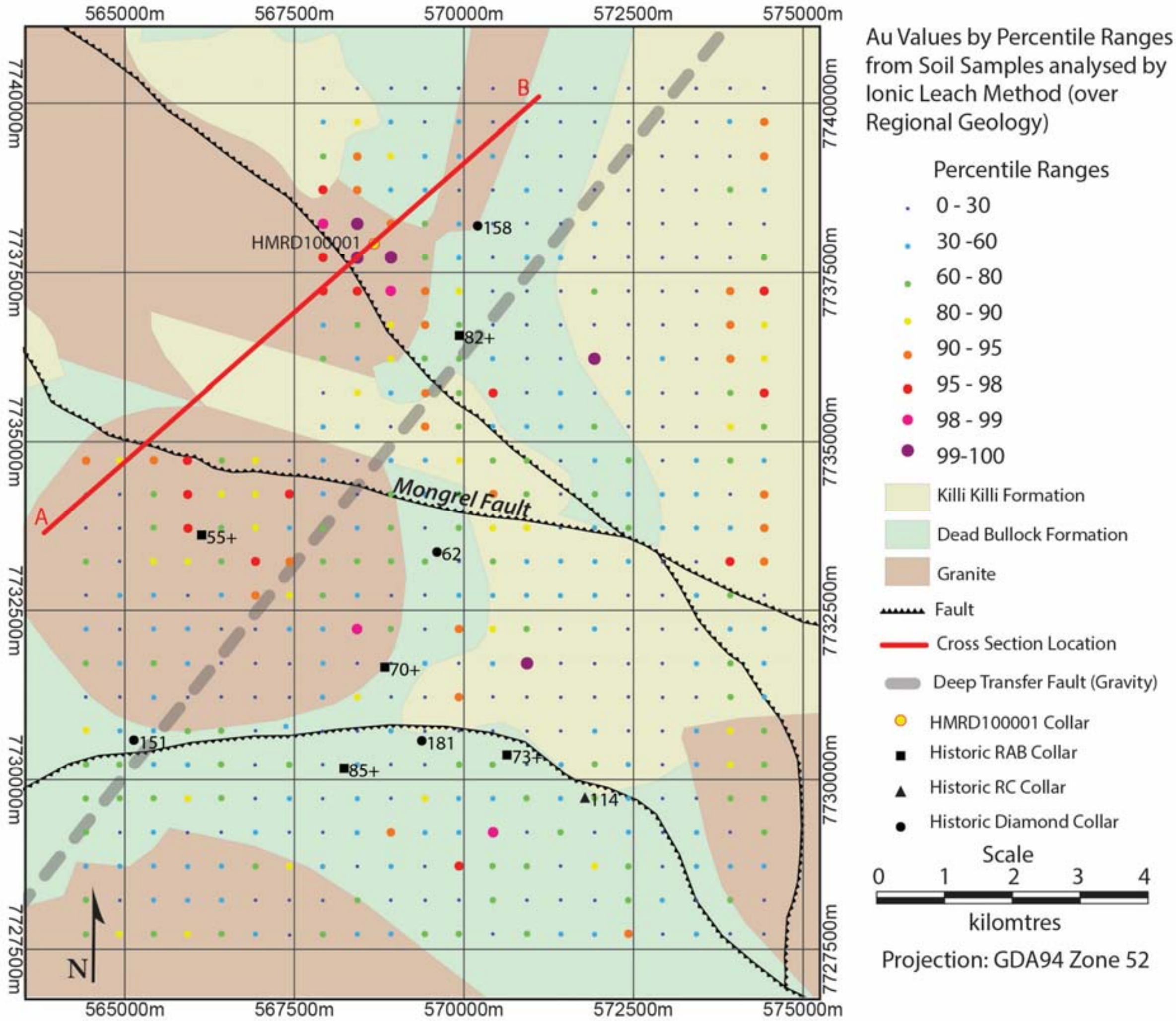


Figure 9. Au DPG anomalism by unequal percentile (0, 30, 60, 80, 90, 95, 98) over regional geology; Historic holes with depth of basalt labelled. Also showing the approximate location of the Homestead Transfer Fault from gravity data.

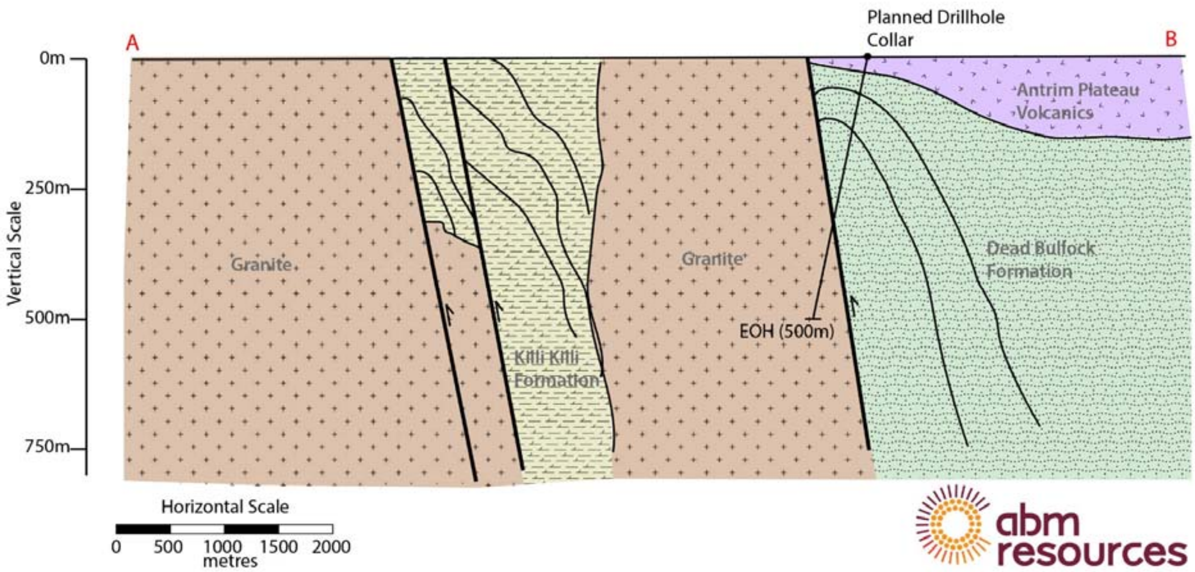


Figure 10. Interpreted cross section prior to completion of the Homestead diamond hole. See section line in Figure 9.

The target style of Homestead is a Callie style gold system with a possible endowment of >5Moz.

7. Details of the Collaborative Program

WDA drilling mobilised from Kalgoorlie on the 8th of May, 2017, and commenced drilling on the 13th of May. WDA utilised a multipurpose UDR 1000 on an 8x8 MAN, and numerous support vehicles.
Drilling comprises a 51m rollercone precollar, followed by HQ core from 51m to 116.7m, with the remainder of the hole drilled with NQ2. The drill hole was completed on the 19th of May, at a depth of 276.11m.

The final collar position was surveyed at 568,674mE and 7,737,924mN, at an RL of 371m (GDA94 zone 52). Drilling set up at a magnetic azimuth of 220º, and a dip of -70º. Downhole surveys completed at 30m intervals using an Camteq single shot camera confirmed that the hole remained relatively straight, with a gradual hole deviation ending at an orientation of -72.5º towards 223.6º.

Drill core was orientated where possible using a Boart Longyear TrueCore, although significant broken ground was encountered. Orientation length and quality were recorded for each run.

Data collected includes core recovery and RQD (per run), orientation lengths and quality, magnetic susceptibility readings and pXRF, specific gravity measurements (every 5m) and core photographs per tray.

Magnetic susceptibility measurements were collected on the drill core at 50cm intervals using a Terraplus KT-10 handheld tool. Each measurement was collected at each metre and half metre depth marking for the entire length of the drillhole. A single reading was collected on full core, away from metal objects. The KT-10 was used in non-pin mode and set to automatically correct the reading for the core diameter. Raw data is provided in EL25192_2017_C_11_DHMagsusc.txt, with all readings in SI x 10^{-3}.

pXRF measurements were taken at 50cm intervals at each metre and half metre depth marking directly on the core. Reference pulps sourced from Geostats with a known concentration of a number of base metals were used as a standard to check for machine drift. Data is provided in EL25192_2017_C_13_DHXRF.txt.

Specific gravity measurements were taken from approximately 5m intervals along the entire drill hole. Using the Archimedes method, dry and wet weights were recorded from samples taken directly from the core tray, without drying or soaking prior to weighing. A representative unweathered rock from the area was utilised as a standard and measured regularly, to ascertain that the measurements did not drift with temperature or time. Raw data is recorded in EL25192_2017_C_15_DHSpecGrav.txt.

Detailed geological logs were collected, comprising records of weathering, lithology, composition, grain size, alteration, veining and structural measurements, amongst other observations.
Intervals were selectively sampled as half core on nominal 1m intervals or on geological contacts where appropriate, and cut using an almonte core saw using the correct boats for the core size, and following the cut line approximately 5mm to the right of the core orientation line. All core cutting and sampling into a pre-printed bag range was supervised by an ABM senior geologist, and standards and blanks inserted regularly at random intervals.

Within the basalt and granite, representative core samples were collected at five metre intervals. The twenty metre base sequence of the basalt, underlying sediments, and fifteen metres into the granite were sampled at nominal one metre intervals, or down to geologically relevant contacts. This produced 138 core samples prior to inserting reference material and lab crushed duplicates.

Samples were submitted to Bureau Veritas via Northline transport and logged, weighed, and dried if wet. Samples were then crushed to 2mm (70% pass), then split using a riffle splitter, with 250g crushed to 75 µm (85% pass). 40g charges were then fire assayed to produce a 40g charge for fire assay for gold analysis. Analysis using ICP-AES gives a gold detection limit of 1ppb. A mixed acid digest with ICP-AES and ICP-MS finish on 58 selected samples is utilised to obtain multi-element analysis for 60 elements (Table 2). Aside from ABM inserted quality control samples, Bureau Veritas have procedures and safeguards in place to ensure that the quality of the data produced is of the highest standard, and insert blanks and reference materials of their own in each rack of samples.

Table 2. MA101 and MA102 package from Bureau Veritas. Detection limits are listed in ppm.

MA101	**ICP-AES detection limits**					
	Al (100)	Ca (100)	Cr (10)	Fe (100)	K (100)	Mg (100)
	Mn (2)	Na (100)	P (50)	Na (100)	S (50)	Sc (1)
	Ti (50)	V (5)				
MA102	**ICP-MS detection limits**					
	Ag (0.5)	As (1)	Ba (1)	Be (0.5)	Bi (0.1)	Cd (0.5)
	Ce (0.1)	Co (1)	Cs (0.1)	Cu (1)	Dy (0.05)	Er (0.05)
	Eu (0.05)	Ga (0.2)	Gd (0.2)	Hf (0.2)	Ho(0.02)	In (0.05)
	La (0.1)	**Li (0.5)**	Lu (0.02)	Mo (0.5)	Nb (0.5)	Nd (0.05)
	Ni (2)	Pb (1)	Pr (0.05)	Rb (0.2)	Re (0.1)	Sb (0.1)
	Se (5)	Sm (0.05)	Sn (1)	Sr (0.5)	Ta (0.1)	Tb (0.02)
	Te (0.2)	Th (0.1)	Tl (0.1)	Tm (0.05)	U (0.1)	W (0.5)
	Y (0.1)	Yb (0.05)	Zn (2)	Zr (1)		

8. Results and Interpretation

The targeted units of the Dead Bullock Formation or Mt Charles Formation were not intersected.

The hole collared in the Antrim basalt and drilled through 36 metres of saprolite. Fresh basalt was intersected at 83.4m, although additional weathered intervals, related to more porous tops of flows, are intersected further down the hole. Approximately ten individual flows can be recognized from vesicles and hyaloclastics. A 13cm thin palaeosol of Cambrian age marks the contact between the base of the basalt and the top of underlying sediments at a depth of 153m.

Flat lying mudstones and siltstones were intersected, interpreted to be Muriel Range Sandstone of Adelaidean age from their distinct thin to very thin beds. Below the flat lying sediments, the Dead Bullock Formation was anticipated, but granite was intersected instead at a depth of 219.7m. The hole was terminated at a depth of 276.11m to ensure that the granite was not a narrow dyke.

The source of the Ionic Leach geochemical anomaly is not satisfactorily explained, although it could be related to the conglomerate at the base of the Muriel Range sediments containing disseminated trace to abundant blebs of pyrite over 6.8m.

pXRF analysis indicate a geochemical correlation between the flat lying sediments and the Mt Charles Formation Cr/Th & Th/Sc composition, suggesting that the conglomerate may be reworked Mt Charles formation providing some anomalism.

Recorded datasets are appended, with a detailed summary of key datasets provided in the following sections.

8.1 Geological logging

8.1.1 Tertiary Cover 0 – 18m

From the rollercone drill spoil, a red brown unconsolidated alluvium was noted to a depth of 16m down hole, and a more indurated ferruginous unit was found between 16 and 18m at the base of the alluvial sequence.

8.1.2 Cambrian Antrim Basalt 18 – 153m

Cambrian Antrim Basalt was first intersected at 18m and continued as highly weathered saprolite until a depth of approximately 36m where chips of green brown saprock were observed in the cuttings slurry. Fresh basalt was first intersected at a depth of 83.4m, although additional weathered intervals, related to more porous tops of flows, are intersected further down the hole to a total depth of 153m.

Approximately ten individual basalt flows were recognized with an average of 10 metres thickness and the thinnest flow at around a metre. The top of the individual flows were found to be highly vesicular (2-8mm) and were either open or variously infilled with carbonate, massive silica, agate or crystal lined cavities. A geopetal was noted on one occasion which indicated the flat lying orientation of the flow has not changed since eruption. Native copper was noted above the water table in a partially dissolved vein as a very thin film and rare chalcopyrite in crustiform veins just below the hyaloclastite at 115m.

Hyaloclastite breccia veins (Figure 11A) were noted on four of the flow tops indicating that the original lava flowed into water, but the majority has vesicular tops with clay fill at the top of the hole, silica and crystal lined cavities near middle (Figure 11B) and empty vesicles due to dissolution near the base of the formation (Figure 11C).

Porphyroblasts consisting of euhedral, occasionally twinned feldspar between 2-5mm was noted in the more vesicular flow tops in the centre of the unit and became more indistinct and poorly formed with depth.

A poorly formed hyaloclastite zone is located in the lower part of the lower most flow and rather than at a flow top, it has formed from hot lava interacting with the moist underlying sediments.

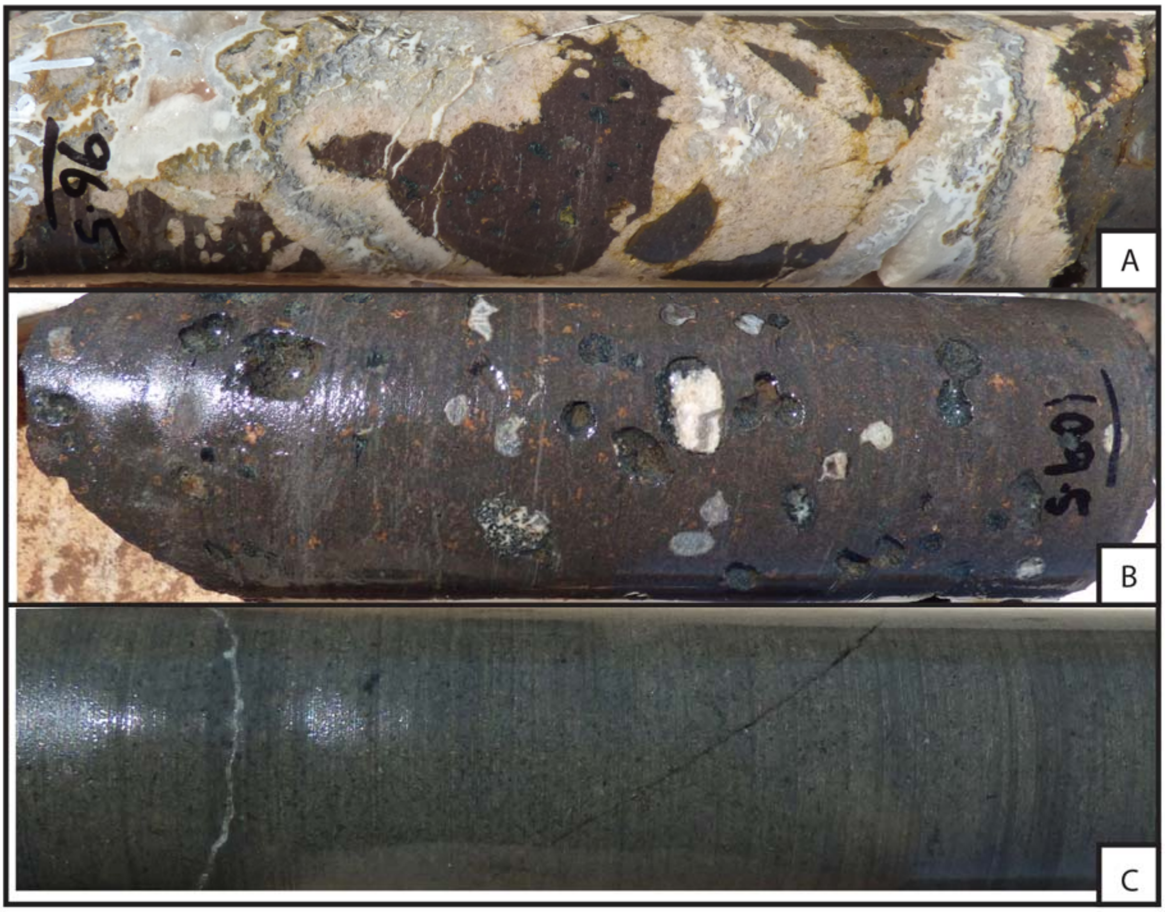


Figure 11. Examples of Antrim Plateau Volcanics hyaloclastics (A), vesicular flow top (B) and flow base (C)

8.1.3 Cambrian Palaeosol 153 – 153.5m

A 0.5m thin palaeosol of Cambrian age is located directly beneath the basalt and consists of two units; a sandstone and a mudstone.

13cm of pale beige coloured sandstone was found beneath the carbonate-goethite unit and consists of medium grained, rounded, clear quartz sand grains in a matrix of clay and carbonate (Figure 13A). In other drill holes drilled elsewhere into a palaeosol below the Antrim Plateau Volcanics a silcrete band was found at this location (Figure 12). The sandstone was likely unconsolidated at the time of the eruption of the basalt and carbonate has since been precipitated by ground water flow. This unit could have possibly formed when a rush of displaced water from the oncoming basalt flow mobilized higher energy sands. The grains of this sand unit resemble the intercalated sandstones found within the underlying Adelaidean siltstones.

Grey-green claystone forms a consolidated palaeosol from the weathered underlying siltstones and mudstones and has an overall thickness of 36cm.

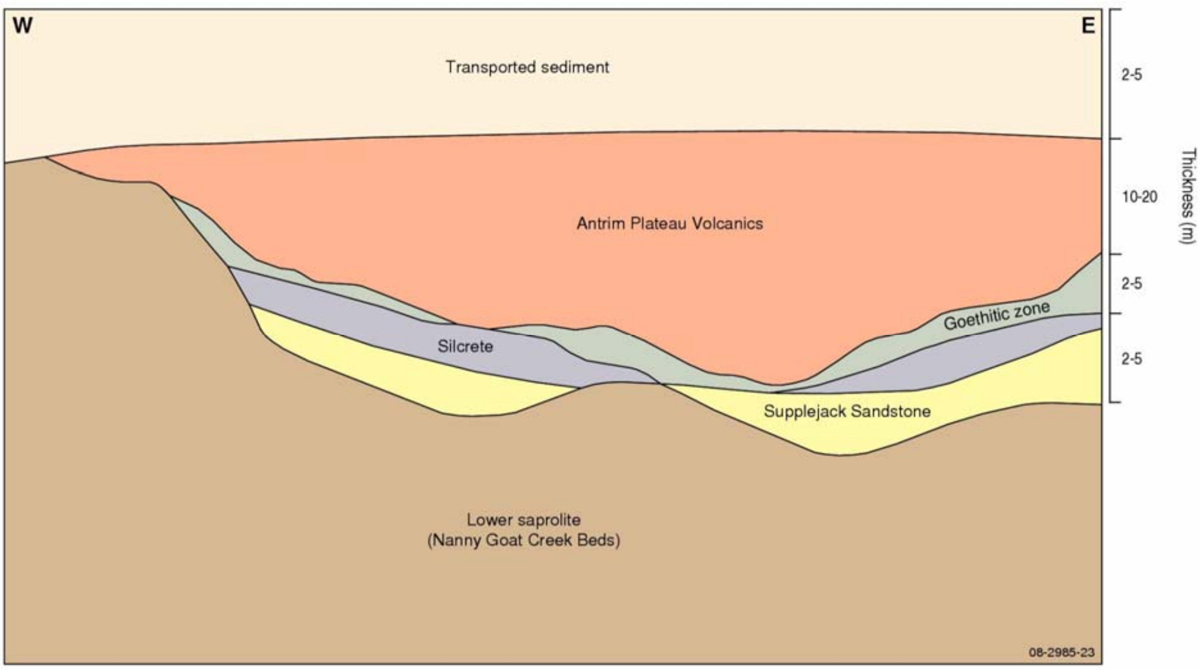


Figure 12. Schematic cross-section showing typical stratigraphic sequence developed for Palaeozoic palaeovalleys in the Tanami region which are preserved beneath the Cambrian Antrim Plateau Volcanics. This section is based on drilling near Suplejack and shows the preserved valley profile developed in weathered (saprolitic) bedrock and infilled with partly silicified alluvial sediments (here termed the Supplejack Sandstone).(After Magee 2009).

8.1.4 Muriel Range Sediments 153.5 – 219.7m

A disconformity exists between the flat lying continental Cambrian Antrim Basalt and the flat underlying siltstone unit, which has tentatively been assigned to the Muriel Range Formation of Adelaidean age.

The sequence comprises dark, finely laminated siltstones and mudstones with an overall thickness 66.2m. Individual beds have a thickness of around 1mm with alternating light and dark beds and resembles a lacustrine varve sequence. Darker beds do not appear especially graphitic, and become quite gossanous when weathered, indicating a high iron content. Fining up sequences similar to that of a turbidite are rare and slump, cross bedding and scouring on a centimetre scale are occasional seen (Figure 13B). Not uncommon are isolated pebbles (5-10mm) of granitic origin that appear to be ice rafted drop stones.

A 5m zone of 1-5cm thick carbonate cemented sandstone beds were found from 190m down hole and are interbedded with the fine laminated siltstones and mudstones. Individual beds consist of well sorted and rounded clear medium quartz sand and occasional gravel sized lithic fragments mostly of granite. A polymictic pebble conglomerate was found at the base of this sequence with a thickness of 15cm and consisted of 3-8mm subrounded clasts of red haematite altered granite, black indurated massive siltstone and green mafic in equal proportions.

Below the sandstone interbeds are located a further 22m of dark grey siltstones which are poorly bedded with occasional isolated pebbles and rare thin sandstone beds.

The base of the formation from 212.8 to 219.65m is characterised by 6.85m of poorly sorted, clast supported, subangular to subrounded polymictic conglomerate of gravel to boulder sized clasts. A wide range lithologies is found with grey quartzite, black indurated siltstone, white and black dacite, fine grained green mafic and haematite altered granite of varying grainsize and intensity of haematite alteration. With depth, granite boulders of a composition and texture to that of the underlying granite become dominant. Disseminated pyrite is common and becomes abundant and forms large masses over 20cm around 217.4m (Figure 13C).

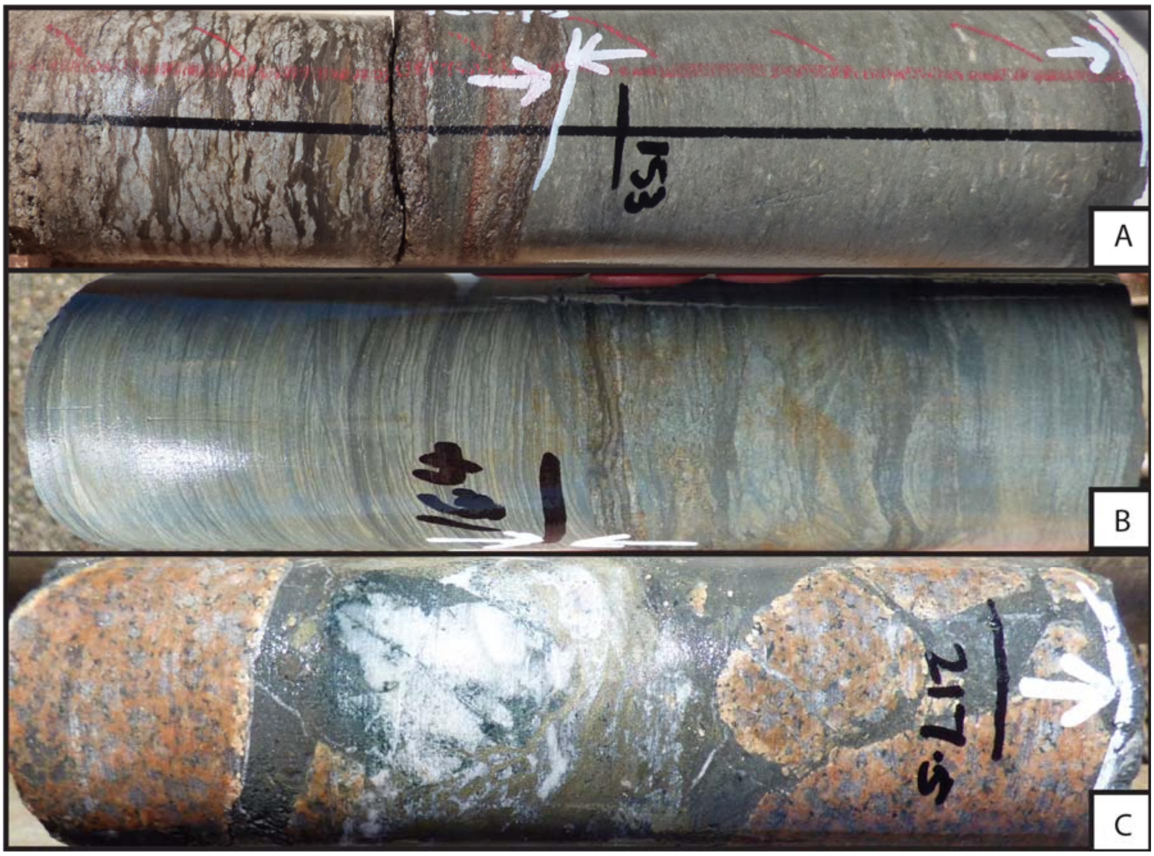


Figure 13. Cambrian palaeosol over Muriel Range sediments (A), typical Muriel Range laminated siltstones displaying soft sediment deformation and minor pyrite (B), and blebby pyrite in basal conglomerate with dominant granite clasts (C).

<u>8.1.5 Granite 219.7 - 276.1 (EOH)</u>

Dead Bullock Formation units were targeted below the flat lying sediments. Instead, Lower Proterozoic granite was intercepted at a depth of 219.65m down hole. The hole was continued 56m into the granite to make sure it was a granite and not a felsic dyke. The granite was weakly haematite altered for 4m (Figure 14A) until a 1.2m wide zone of chlorite alteration was encountered with a central stockwork of quartz veins (Figure 14B). The quartz veins lack sulphides and do not appear especially auriferous.

With increasing depth, haematite alteration becomes very weak and disappears by 230m.

A 50cm wide mafic xenolith was encountered at 230.75m and contained a significant amount of very fine disseminated pyrite and may host gold mineralisation (Figure 14C). No lepidoblastic texture was noted in the mafic indicating it is not an intermediate dyke.

Unaltered and very weakly haematite altered granite continued to the end of the hole (Figure 14D).

The granite consists of 50% quartz (often preferentially haematite altered), 45% grey to white feldspar and 5% chlorite which was formally biotite. Rare disseminated cubes of pyrite become less abundant with depth and are very rare by end of hole. A number of 1-3cm crustiform quartz veins are found within the granite and have small dogtooth crystals and occur with an incidence of around 1 per 5m and are semi parallel to the core axis indicating a steep dip.

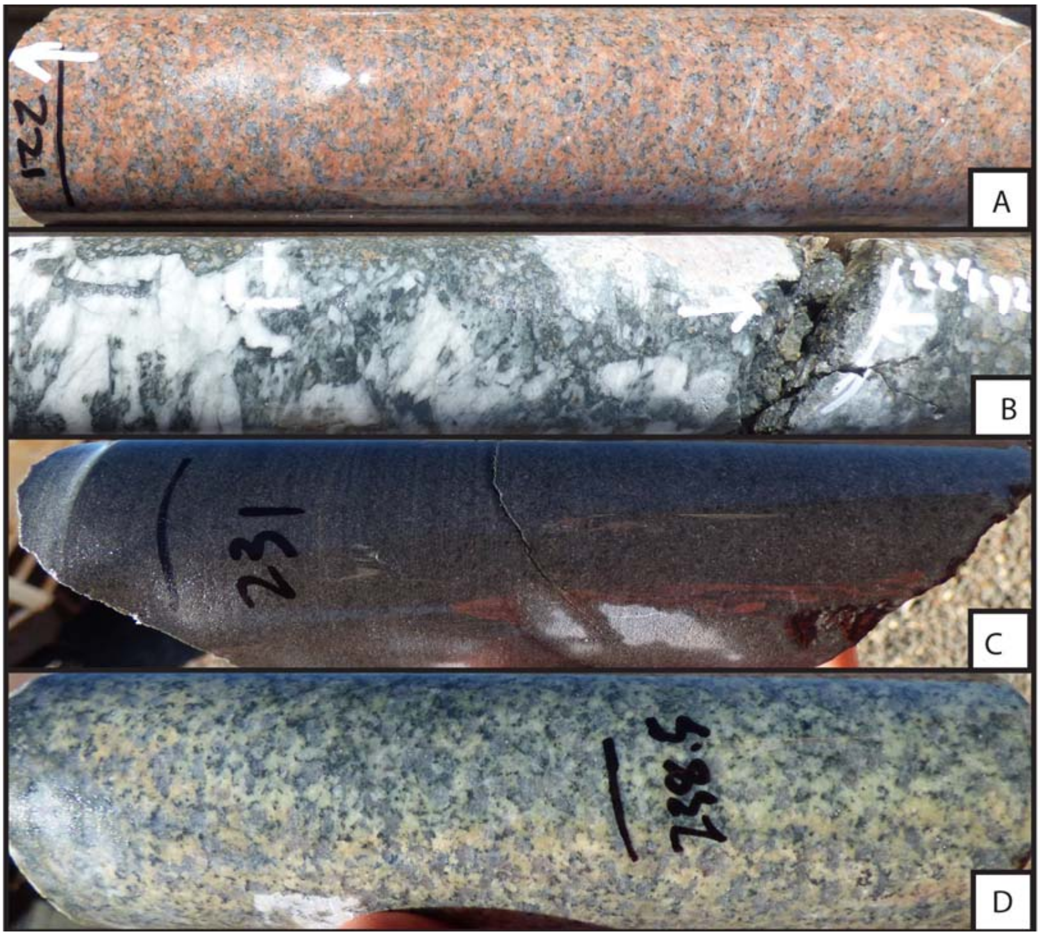


Figure 14. Examples of intersected granite. Haematite altered (A), irregular stockwork quartz veining (B), mafic xenolith (C) and unaltered granite towards the end of the hole (D).

8.2 pXRF analysis

pXRF analysis every 50cm down hole was completed to complement geological logging and appended in EL25192_2017_C_13_XRF.txt. A number of analysed elements clearly pick out different units, as would be expected. A ternary plot (Figure 15) shows clusters of the three intersected rock types. The downhole zirconium trend provides the best individual graphical summary of the three main units intersected in this hole (Figure 16). Also identifiable is the mafic xenolith within the granite at a depth of 231m.

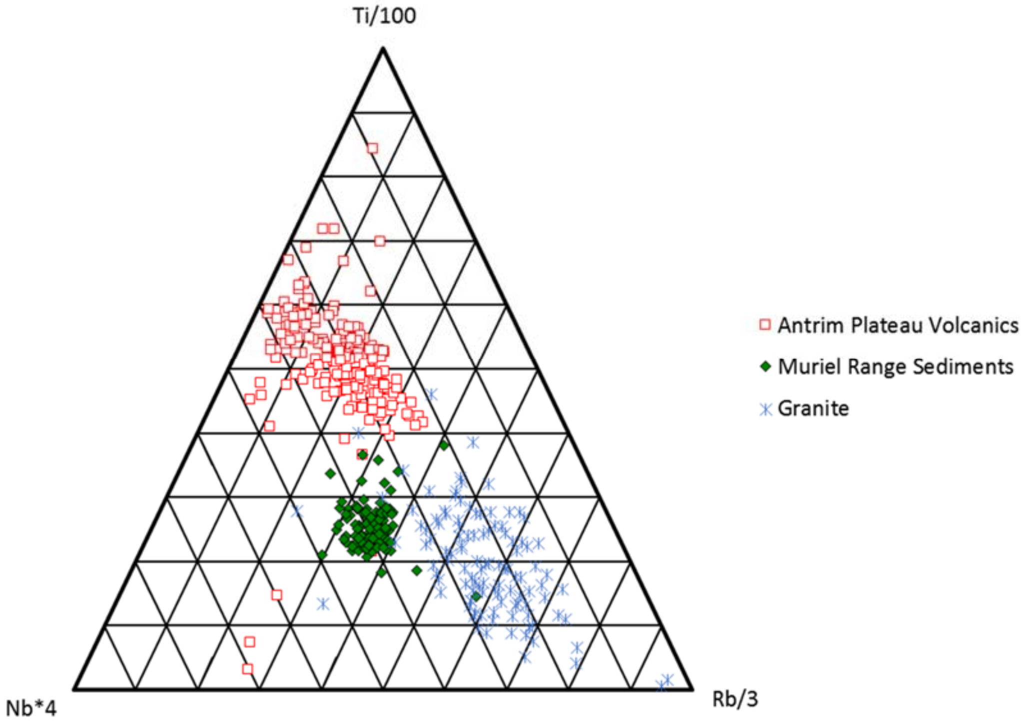


*Figure 15. Ternary plot of Ti/100, Nb*4, Rb/3 showing clusters of intersected rock types.*

Native copper is recorded just above the water table and represented in the pXRF data as a slight increase above background at that depth, and it also serves as a proxy for weathering, with copper leached from approximately 80m – 105m downhole, and enriched down to approximately 75m.

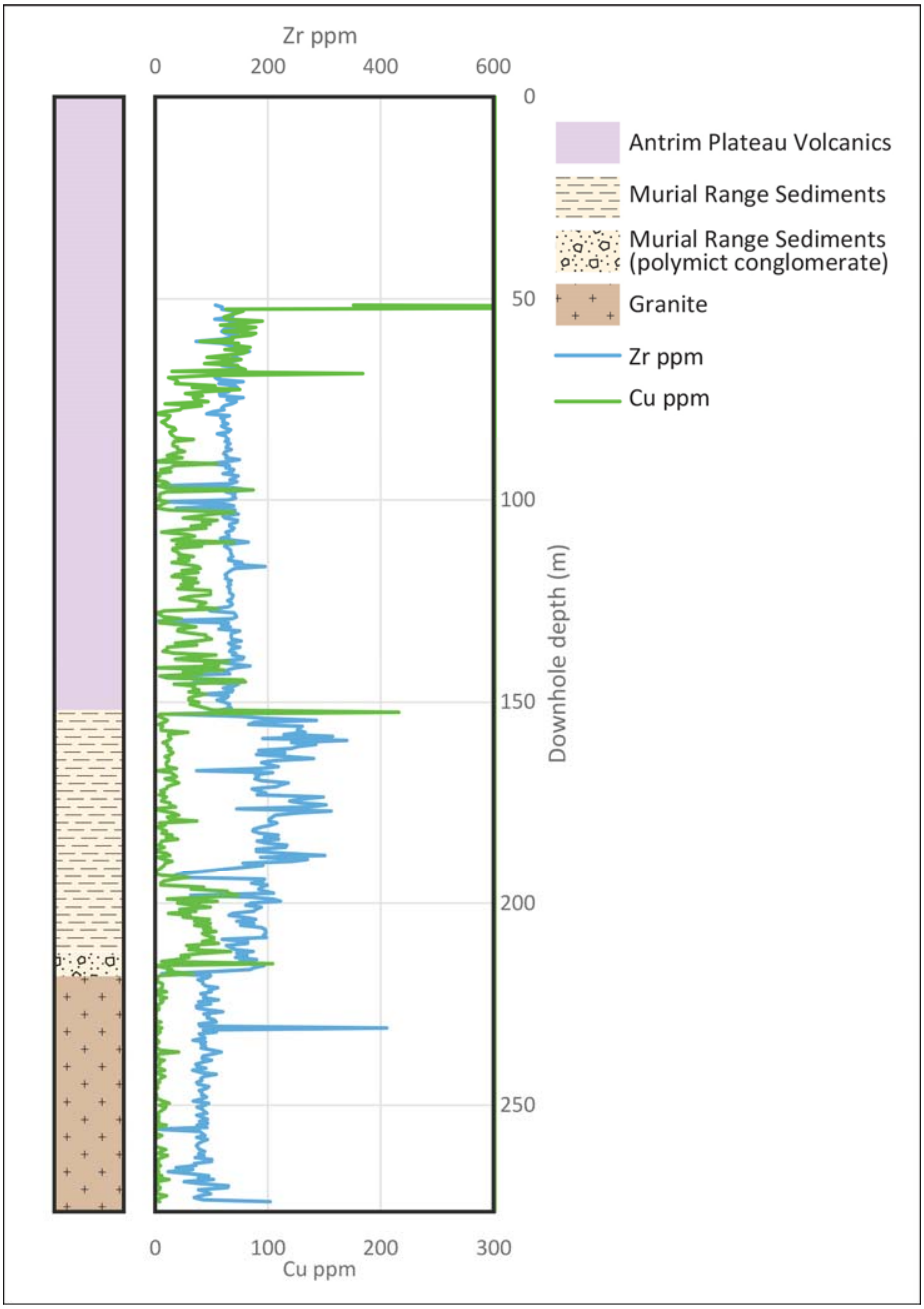


Figure 16. Downhole pXRF analysis for copper and zirconium against recorded stratigraphy.

The relative increase of copper at the base of the Muriel Range sediments is of interest, as it correlates with an increase in other elements potentially related to mineralisation. Lead, arsenic and scandium all map out a wider zone of anomalism between 195m to 220m (Figure 17), incorporating the conglomerate and overlying poorly bedded siltstone at the base of the Muriel Range sediments directly overlaying the granite. The anomalous values are of interest, as they do not reappear further above the contact within the sediments and may be related with the source material that defines the conglomerate and directly overlying sediments.

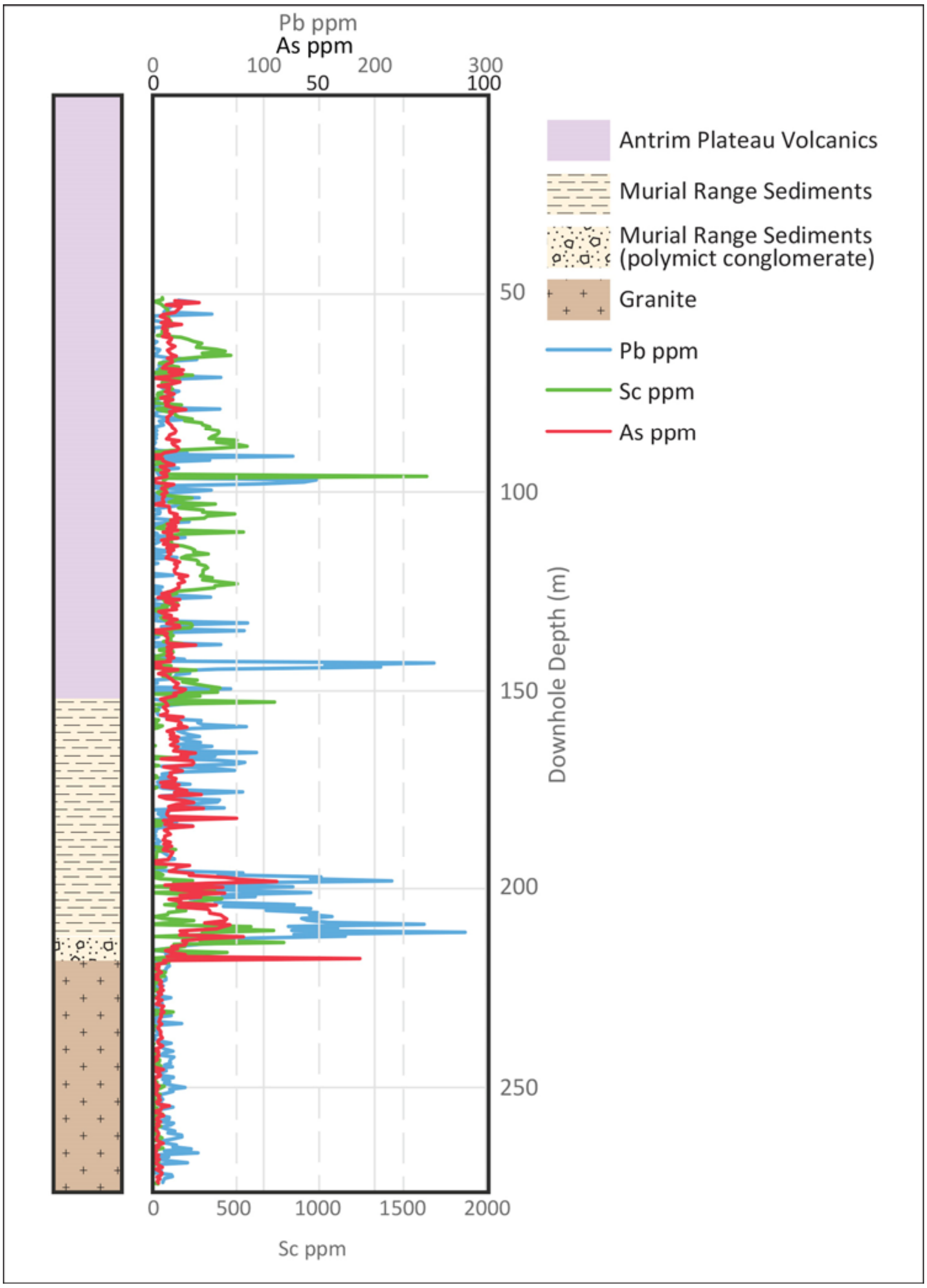


Figure 17. Downhole pXRF analysis for lead, scandium and arsenic against recorded stratigraphy.

Disseminated pyrite is common at the base of the Muriel Range sediments and forms large masses at around 217.4m. This is also evident from pXRF data with peaks in Fe and S, although only minor increases in As, Co and Cu indicate that no significant other sulphides are present. The interval is not likely of any relevance for gold mineralisation, but indicates reworking of more prospective underlying stratigraphy into the Muriel Range sediments.

8.3 Assay Results

Sample details and assay results are appended in EL25192_2017_C_06_Samples.txt and EL25192_2017_C_07_Assay.txt.

Within the basalt and granite, representative core samples were collected at approximate 5m intervals. The twenty metre base sequence of the basalt, underlying sediments, and fifteen metres into the granite were sampled at nominal one metre intervals, or down to geologically relevant contacts. This produced 138 core samples prior to inserting reference material and lab crushed duplicates. 58 of these samples were analysed for 60 elements.

Gold assay results are predominantly below detection. The only results above detection are not significantly anomalous to constitute any significant result, but do correspond with the polymictic conglomerate at the base of the Muriel Range sediments. Max gold is 9 ppb at the interval of 214.4 – 215.26m and other results of 2 and 3 ppb cover an interval from 209 to 217.52m.
Minor gold of 2ppb also marks the palaeosol at the contact of the Antrim Plateau Volcanics and the underlying Muriel Range Sediments.

Multi-element analysis is generally in line with XRF data, particularly for abundant elements well within the capabilities of the XRF detection limits.
Sulphur is not easily detected by handheld XRF, and although the four acid digest data delivers a similar trend, it also indicates that the entire sedimentary package is anomalous in sulphur, averaging 1.5% sulphur throughout the package. The base of the conglomerate, where masses of blebby pyrite were recorded, returns the maximum sulphur result of 6.1%. Confirming the XRF data, the sulphur is accompanied by elevated iron and not by any pathfinder elements for gold mineralisation, indicating pyrite being the sole sulphide mineral.

No other elements of economic significance are encountered.
As XRF data gives better resolution with sample points every 50cm down core and used for further analysis.

8.4 Discussion

The intersected stratigraphy does not satisfactory explains the DPG ionic leach anomaly. Whilst it may be related to the 6.8m of disseminated and blebby pyrite at the base of the flat lying sedimentary sequence, it suggests that the DPG technique does not differentiate between economic mineralisation and minor element variation.
The size of the DPG anomaly of 4.18km^2 leaves a reasonably large area untested, but current drill results suggest that at least a significant component of the anomaly overlies the intersected granite. This implies that the footprint may have increased in size due to higher horizontal element movement than anticipated, making the DPG method as an exploration technique less reliable.

The flat lying sediments intersected in drilling were also encountered in drilling by The Tanami JV and North Flinders Mines in a number of drill holes in the wider South Tanami project.
The general composition of the Adelaidean Muriel Range Sandstone comprises quartz sandstone, grit, conglomerate, breccia, shale, siltstone, limestone and chert. It is mapped to the southwest of the Tanami Downs station, forming cuestas and strike ridges. Whilst the typical composition appears coarser to what is intersected in drilling, a distinguishing mapped feature is its thin to very thin beds and abundant shale pellets, resembling the stratigraphy intersected in this hole, and descriptions of others. The lack of turbidites and fine laminated beds indicate a quiescent lacustrine environment for the deposition of the intersected siltstones and mudstones of the Muriel Range sediments.

The basal polymictic conglomerate sequence indicates a Lower Proterozoic source for the clasts and may yet give an indication of nearby gold mineralisation, or at least the presence of preferred host rock stratigraphy. Also promising is the results from the Tanami JV hole TDDH1, including a maximum of 0.54 ppm gold from a clay and sericite altered zone with contorted quartz-carbonate veins. Whilst the sediments post-date the main mineralisation events in the Tanami, it may indicate reworking of underlying stratigraphy, at least suggesting proximity to prospective host stratigraphy.

Historic drilling by North Flinders, whilst at considerable distance from ABMs diamond hole, intersected metamorphosed sediments interpreted to be Mt Charles Formation, now considered part of the Dead Bullock Formation. This data, combined with the findings from the current drill hole, has resulted in an updated cross section (Figure 18).

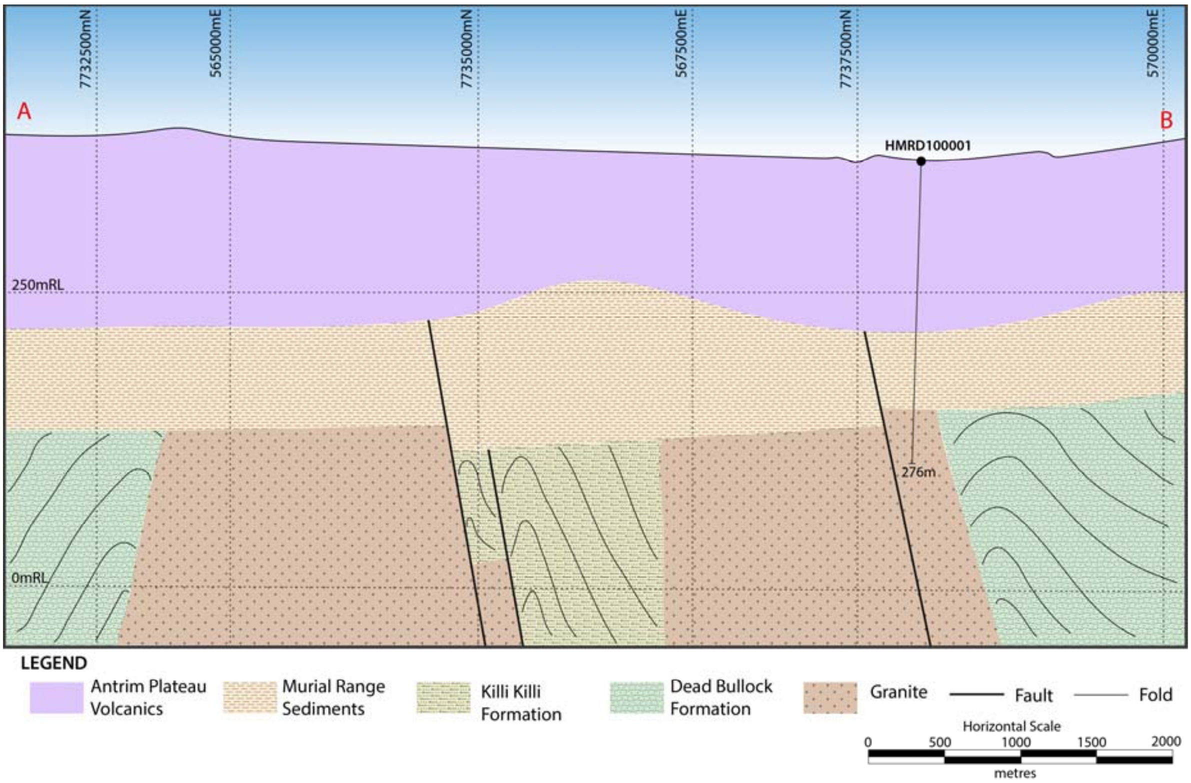


Figure 18. Interpreted cross section updated with intersected geology from the Homestead hole. Looking north-west. See section line on Figure 9.

Geochemical differentiation between stratigraphic sequences has been documented in various studies and particular elements and element ratios reliably used to map stratigraphy. Particularly Th/Sc, Zr/Sc and Cr/Th are useful as these can be utilised from pXRF and standard multi-element lab analysis. Geochemical compositions are compared in Lambeck (2011) and adopted here.

The Th/Sc versus Zr/Sc rations from pXRF data suggest a predominantly mixed mafic-felsic provenance for the Muriel Range sediments.
Plotting Cr/Th versus Th/Sc separates the key stratigraphic units in the Tanami and generates a new trend for the Muriel Range sediments (Figure 19). This may aid in stratigraphic classification of the Muriel Range sediments from multi-element geochemistry in future exploration.

Whilst the Th/Sc ratio and Zr/Sc ratios correlate reasonably well with the mixed mafic-felsic stratigraphy of Mt Charles Formation, the Cr/Th ratio is lower. The closest affinity of the intersected Muriel Range sediments with Mt Charles Formation suggests that the sediments may be derived from exposed Mt Charles Formation as its dominant source.

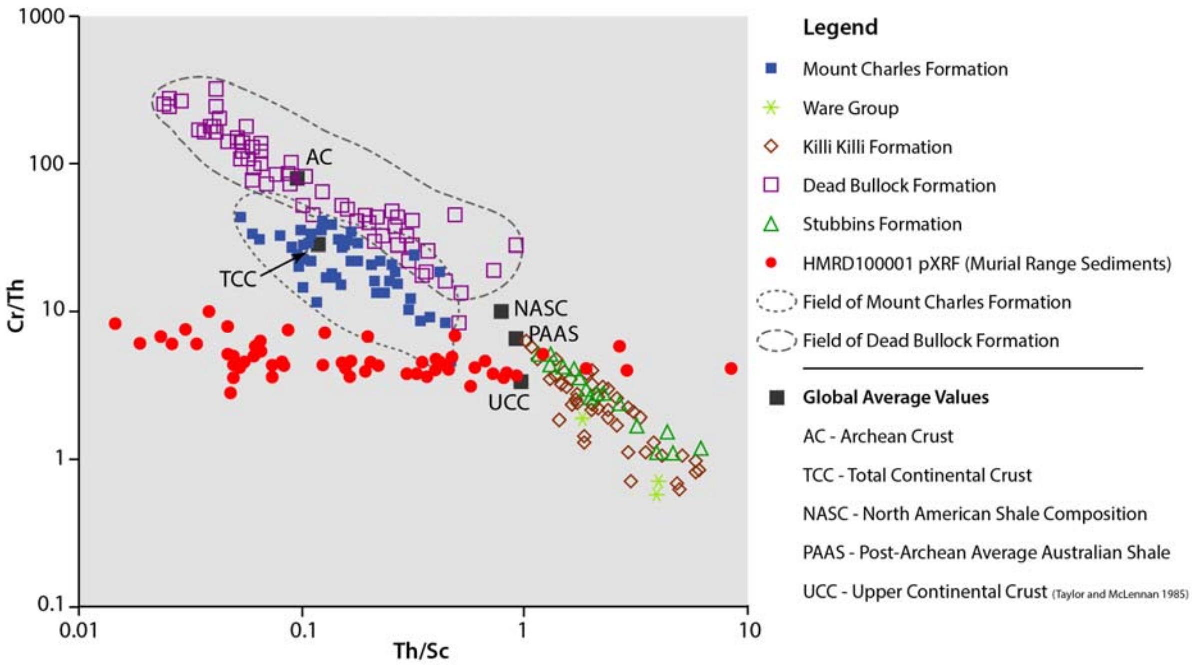


Figure 19 Cr/Th versus Th/Sc plot showing the Muriel Range sediments against other Proterozoic stratigraphy. Adopted from Lambeck (2011) with added pXRF results from this report.

The updated geological cross section and potential prospective host stratigraphy at significant depths suggest that exploration in the South Tanami project is difficult at best. More detailed mapping of the extent of the Antrim Plateau Volcanics and Muriel Range sediments is crucial to determine shallower parts of cover sequences to progress cost effective exploration.

9. Conclusion

The Homestead diamond hole did not intersect units of the Dead Bullock or Mt Charles Formation.

Clasts within the conglomerate at the base of the Muriel Range sediments and pXRF geochemistry of the sediments shows that the sediments have the closest chemical affinity with the Mt Charles formation, and indicate more prospective host rock in the vicinity, albeit at depths greater than 219m.
Plotting the Muriel Range sediments on a Cr/Th versus Th/Sc diagram generates a geochemical composition field which may be used for geochemical classification of stratigraphy in further exploration.

The 6.8m of disseminated and blebby pyrite within the conglomerate and overlying mudstones at the base of the Muriel Range sediments does not satisfactorily explain the anomalism generated by ABM's in house Deep Penetrating Geochemistry ('DPG') technique. The DPG methodology does not generate a discrete geochemical response for direct deeper drill testing, and is rather likely more dispersed.

The revised interpreted geological section and results from historic drilling in the wider project area indicate that prospective stratigraphy exists under Antrim Plateau Volcanics and Muriel Range sediments. Without a geochemical technique to effectively predict under cover mineralisation, further exploration will require better mapping and geophysics to determine the likely thickness of these units to prioritise more cost effective exploration in areas of lesser or no cover sequence.

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