CAMECO AUSTRALIA PTY LTD

Annual Report – EL 9637

CONFIDENTIAL

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SUMMARY

The Mount Howship project comprises one exploration licence (EL 9637), located in western Arnhem Land, approximately 250 km east of Darwin. The exploration licence was granted to Heavy Metal Resources Pty Ltd (Heavy Metal Resources) on 15 May 2009 for an initial period of six years. Cameco Australia Pty Ltd (Cameco) has formed a joint venture with Heavy Metal Resources and was the operator of the project during the reporting period. The total area covered by the licence is 66.51 km^2.

The focus of Cameco's exploration strategy in Arnhem Land is the discovery of unconformity-related uranium deposits. The archetype unconformity-style uranium deposits are found in the Athabasca Basin in northern Saskatchewan, Canada. The prospective nature of the Alligator Rivers region is demonstrated by the presence of nearby deposits at Ranger, Jabiluka, Koongarra, and the now depleted Nabarlek Mine. These major deposits appear to have a common position relative to the base of the Kombolgie Subgroup i.e. the Paleoproterozoic unconformity, or to its erosional margin, and serve here as regional exploration models. The Mount Howship tenement is considered to be prospective for uranium mineralisation because of the confirmed presence of an unconformity between metasedimentary packages of Cahill Formation and the overlying Kombolgie Subgroup, as well as additional structural complexity.

Desktop studies and research of historical data were the main focus of work in 2013. No field work was completed.

The total reportable expenditure for 2013 is $32,398 (AUD) for EL 9637, which is in excess of the covenant of $32,000.

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1.0 INTRODUCTION

The Mount Howship project comprises one exploration licence (EL 9637), located in western Arnhem Land in the Northern Territory, Australia.

The 2013 exploration activities consisted of desktop studies and historical literature research while working at Cameco's Perth Office.

2.0 TENURE HISTORY

The exploration licence was granted to Heavy Metal Resources on 15 May 2009 for an initial period of six years. Cameco formed a joint venture with Heavy Metal Resources and Cameco was the operator of the project during the reporting period. The total area covered by the licence is 66.51 km^2 (22-sub-blocks). There was no previous exploration on the project until 2009 when Cameco commenced as operator on the project.

In 2009, an airborne hyperspectral survey was completed by HyVista Corporation and a magnetic-radiometric survey was flown over the project area by UTS Geophysics. An airborne TEMPEST survey was completed in 2010 by FUGRO Airborne Surveys.

During the 2010 field season, ground mapping and sampling was completed following up the results of the geophysics surveys. Additional mapping and sampling took place during the 2011 program.

During the 2012 field season two helicopter supported diamond drill holes were completed for a total of 511.9 m. Both drill holes intersected Mamadawerre Sandstone overlying Cahill Formation pelitic schists. A broad zone of silica flooded breccia was intersected in one hole.

3.0 LOCATION AND ACCESS

The Mount Howship project lies approximately 260 km east of Darwin, 240 km northeast of Katherine, and 40 km east-northeast of Jabiru (Figure 1).

The tenement is located on map sheets:

1:250,000 – Alligator River (SD-5301)
1:100,000 – Howship (SD-5572)
1:50,000 – Mount Howship (5572-4)

There are no access tracks to the area, and the area is accessible by helicopter only.

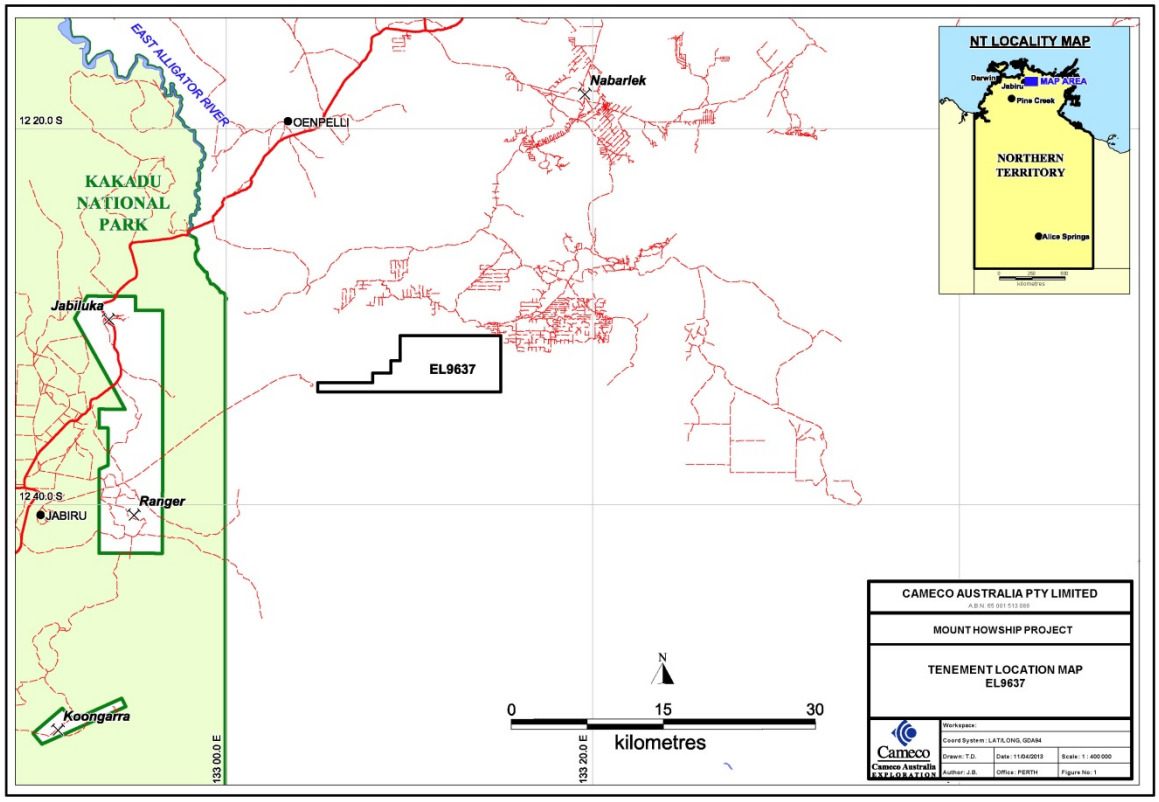

Figure 1: Tenement location map

4.0 PHYSIOGRAPHY

The topography at and around the Mount Howship tenement is rugged and includes dissected sandstone escarpments and gorges of the Arnhem Land plateau. Open woodland and scrub sporadically cover the sandstone country. Gorges contain thick scrub or remnants of monsoonal-type forest.

Soils in the region consist of thin sandy types and some black loams covering (in part) the plateau country. Gorges and valleys within the plateau typically contain alluvium with some soil development and denser vegetation.

There are no major watercourses on the project area. Small creeks and drainages are likely to exist within the heavily dissected sandstone plateau country. Many of these have pools of water until late in the dry season.

5.0 REGIONAL GEOLOGY

The regional geology of Arnhem Land has been systematically and intensely studied and described in detail since 1946, comprising work from the Bureau of Mineral Resources (BMR) (1972 – 1988), the Northern Territory Geological Survey (late 1990's to 2008), Geoscience Australia (2004) and many previous reports for Cameco Exploration Licences in

the western Arnhem Land area. Historical studies in the area included geological mapping and reconnaissance, as well as regional-scale and deposit-scale metallogenic research. Only a brief summary and overview of the geology is provided in this report. The regional geology section is largely based on the work by Needham (1988 and 1990), and Needham and Stuart-Smith (1980). All other information is appropriately referenced.

The Mount Howship project area is located at the northeast margin of the Neoarchean and Paleoproterozoic Pine Creek Orogen, which has been subdivided into the Nimbuwah Domain of the Alligator Rivers region.

The Bureau of Mineral Resources (now Geoscience Australia) completed 1:250,000 geological maps of the Pine Creek Orogen between the 1940s and 1960s, following the discovery of uranium at Rum Jungle, near Batchelor. The Alligator Rivers region was systematically mapped by the BMR and the Northern Territory Geological Survey between 1972 and 1983. This later work produced 1:100,000 geological maps and reports for the region from Darwin to Katherine to the Alligator Rivers region (Refer to Figure 2).

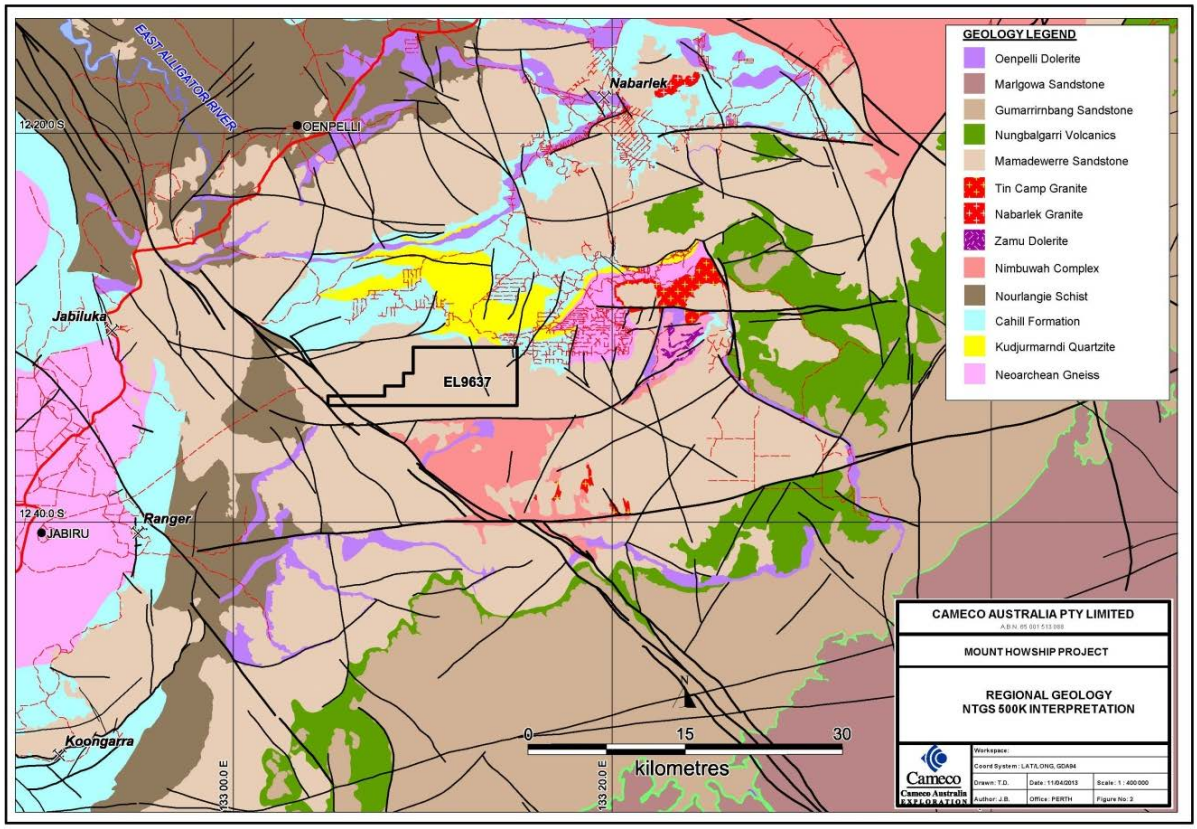

Figure 2: Regional geology of the Mount Howship area

The oldest exposed rocks in the Alligator Rivers region are those of the Neoarchean (ca. 2500 Ma) Nanambu Complex, Kukalak Gneiss, Njibinjibinj Gneiss and Arrarra Gneiss composed of a range of paragneiss, orthogneiss, migmatite, and schists. These Archean rocks are unconformably overlain by the Paleoproterozoic Kakadu Group and Cahill Formation, the latter of which was formerly included in the Pine Creek Geosyncline (PCG). Recent U-Pb age dating by the NTGS and Geoscience Australia (GA) of rocks from the Myra

Inlier (Myra Falls metamorphics), previously mapped as part of the Paleoproterozoic PCG, indicates that they are in fact Neoarchean in age (Hollis et. al, 2009, Hollis and Glass, 2012). These units have, thus, been re-mapped as rocks of the Nanambu Complex, Kukalak Gneiss, Arrarra Gneiss and Njibinjibinj Gneiss.

The Paleoproterozoic Kakadu Group, comprising the Kudjumarndi Quartzite, the Munmarlary Quartzite and the Mount Basedow Gneiss overlies Neoarchean basement and is composed of quartzite, amphibolite, leucocratic paragneiss, meta-arkose and minor chlorite-biotite schist. The Kakadu Group previously included the Mount Howship Gneiss which has since been re-mapped throughout the Myra Falls and Caramal Inliers. It has been reinterpreted as Neoarchean basement and, therefore, abandoned as a specific stratigraphic name (Hollis & Glass, 2012).

The Cahill Formation (1870 Ma) is interpreted to paraconformably overly units of the Kakadu Group based on U-Pb dating of detrital zircons of Kudjumarndi Quartzite and a maximum-age difference of approximately 160 Ma. The Cahill Formation is separated geologically into two groups: the Lower Cahill Formation consisting of calcareous marble and calc-silicate gneiss, overlain by pyritic, garnetiferous and carbonaceous schist, quartz-feldspar-mica gneiss, and minor amphibolite, and the more psammitic Upper Cahill Formation consisting of feldspar-quartz schist, quartzite, lesser proportions of mica-feldspar-quartz-magnetite schist, and minor metaconglomerate and amphibolite.

Conformably overlying the Cahill Formation is the Nourlangie Schist (1870 Ma). The Cahill Formation and the Nourlangie Schist have the same minimum age and share the same exotic provenance. The Nourlangie Schist comprises predominantly garnetiferous quartz-mica schist with locally distributed staurolite, kyanite and magnetite, with all rocks notably lacking carbonate members. These Paleoproterozoic metasediments are intruded by later Proterozoic mafic sills and dykes, assigned to the Caramal, Birraduk or Namarrkon Amphibolites. These mafic units were intruded prior to metamorphism during the Nimbuwah Event of the Top End Orogeny.

During and following cessation of the Top End Orogeny, the A-type Nabarlek and Tin Camp Granites of the Jim Jim Suite (sometimes referred to as the David Suite) were intruded. These intrusive units have been dated at 1818 Ma and 1846 Ma, respectively and comprise relatively undeformed, pink-cream, coarse biotite granite and trondhjemite. The emplacement of these granites during this period is interpreted to be indicative of the waning stages of subduction-related magmatism. In outcrop, the granites are observed intruding Kukalak Gneiss and Nimbuwah Complex granitoids, faulted against Oenpelli Dolerite and unconformably overlain by the Mamadawerre Sandstone of the Kombolgie Subgroup.

Overlying the Proterozoic metamorphic and intrusive units and marked by a regional unconformity, is the Kombolgie Subgroup, the basal unit of the late Paleoproterozoic to Mesoproterozoic Katherine River Group of the McArthur Basin (Sweet et al., 1999a and b). The subgroup comprises almost entirely sandstone dominated formations: the Mamadawerre Sandstone, the Gumarrirnbang Sandstone, and the Marlgowa Sandstone (oldest to youngest) which are divided by thin basaltic units – the Nungbalgarri Volcanics

and Gilruth Volcanics, respectively. Based upon stratigraphic relationships the Mamadawerre Sandstone has a minimum age of ca. 1723 Ma. Detrital zircon SHRIMP data from the GA OZCRON database constrain the maximum age of the sandstone at ca. 1810 Ma.

The Oenpelli Dolerite is the most pervasive mafic intrusive suite to affect the Alligator Rivers region. It intrudes the majority of the Neoarchean and Paleoproterozoic units, as well as the Kombolgie Subgroup, forming magnetic sills, dykes, lopoliths, and laccoliths. The Oenpelli Dolerite has a U-Pb baddeleyite date of 1723 ± 6 Ma (Ferenczi et al., 2005); however, geochemical and geophysical data suggest several phases of intrusion throughout the region. These intrusive events are interpreted to have had a pronounced thermal effect on the Kombolgie Subgroup, with the promotion of fluid flow through the dynamic system of aquifers within the sandstone. Localized alteration effects in the sandstone attributed to the fluid flow associated with the intrusion of the Oenpelli Dolerite include silicification, desilicification, chloritisation, sericitisation, and pyrophyllite alteration. A characteristic mineral assemblage of prehnite-pumpellyite-epidote is developed in the quartzofeldspathic basement rocks adjacent to these mafic intrusions.

Deformation since deposition of the Katherine River Group includes transpressional movement along steep regional-scale strike-slip faults and possibly shallow thrusting. These regional faults follow a pattern of predominantly north, northwest, and northeast strikes, giving rise to the characteristic linearly dissected landform pattern of the Kombolgie Plateau. Another significant structural trend strikes east – west and includes both the Ranger and Mount Howship Faults.

The northwest striking Bulman Fault Zone is the principal regional feature and is considered to represent a long-lived deep crustal structure. However, it appears that post-Kombolgie displacements along this and other faults have not been great (the Kombolgie Subgroup is dextrally offset by approximately 500 m along the structure (Hollis and Glass, 2012)) because the Arnhem Land Plateau is essentially coherent and offsets along lineaments are overall minor. Field investigations of many interpreted fault-like structures, including those with a marked geomorphic expression, show no displacement, and are best described as joints or lineaments.

Erosional remnants of flat-lying Paleozoic Arafura Basin and Cretaceous Carpentaria Basin are present as a veneer throughout the coastal zone. Various regolith components are ubiquitous as cover throughout much of the Arnhem Land region.

6.0 LOCAL AND PROJECT GEOLOGY

The Mount Howship tenement lies to the south of the Myra Falls Inlier, and to the north of the Beatrice Inlier. Refer to Figure 3 for the local geology of the tenement area.

The tenement area is almost entirely covered by the Mamadawerre Sandstone, with a variable thickness increasing from the northeast to an estimated maximum depth of 350 m in the southwest. Outcropping Cahill Formation has been mapped in the northeast corner

of the tenement. Overall, basement units throughout the tenement are interpreted to be the various lithologies of the Cahill Formation.

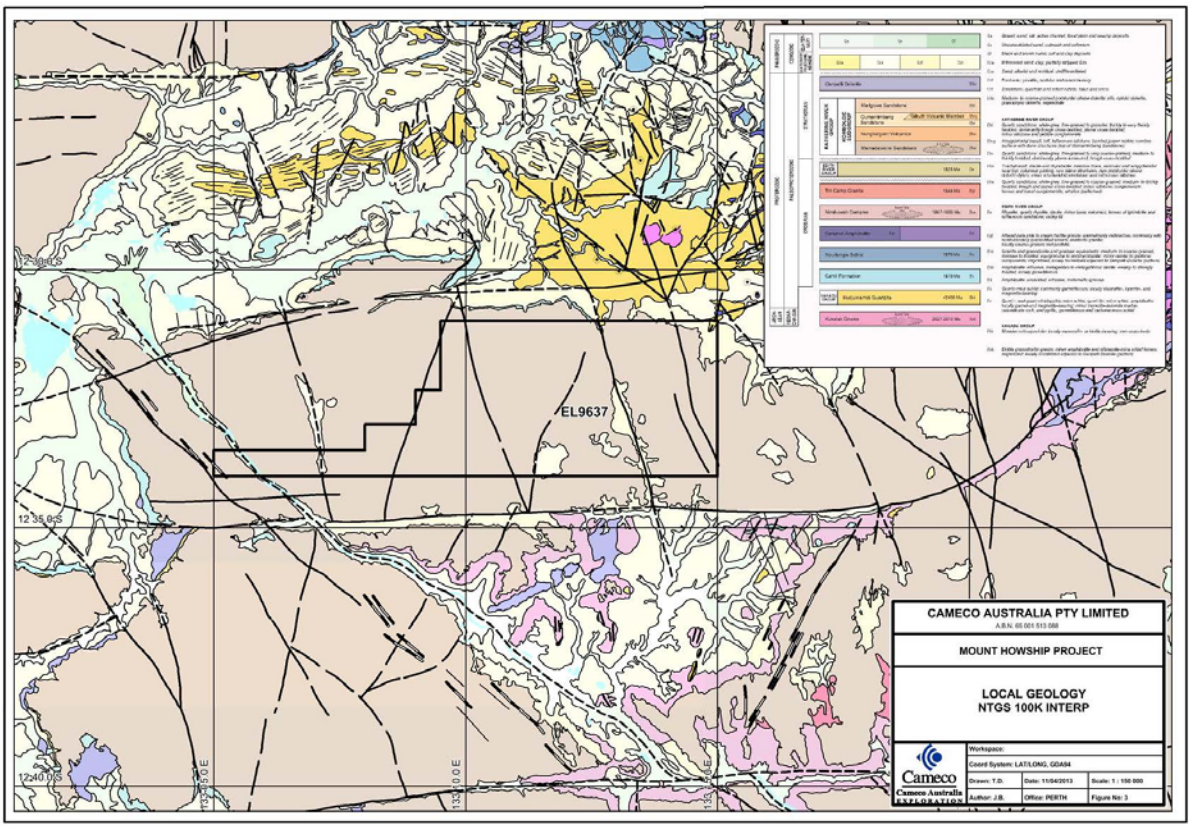

Figure 3: Local geology map

7.0 PREVIOUS EXPLORATION – WORK COMPLETED

Aerial photography was completed over the Mount Howship project area prior to the licence grant (with permission) in June 2008. The produced image was geometrically corrected to create an ortho-photograph with a resolution of 90 cm per pixel. Two airborne surveys, magnetic - radiometric and hyperspectral, were flown over the Mount Howship tenement in 2008 – 2009.

The airborne radiometric and magnetic survey was completed by UTS Geophysics using a 100 m line spacing and 1,000 m tie lines. Interpretation of the survey data identified two northwest trending structures cutting across the sandstone and underlying basement, with likely dolerite emplacement at intersections of cross-cutting structures. Interpretation of the regional magnetic trend over the project area suggests that the sandstone is thickening to the west. This thickening could be caused by either a sharp paleo-topographical change or by three major vertical offsets controlled in part by the interpreted northwest trending structures. The magnetic high present in the northeast of the project area is believed to be due to lithologies of the Cahill Formation, while the largest magnetic feature of the survey, in the southeast of the tenement, is attributed to a dolerite intrusion.

In May 2009, an airborne hyperspectral survey was completed over the Mt Howship project by HyVista Corporation. The survey was flown with a pixel size of 4.7 m, a flight path width of 61 pixels and a height of 2,000 m. The objective of the survey was to identify anomalous hydrothermal clay alteration in the sandstone cover and abrupt changes in clays that could possibly indicate structural offsets. As a result of the survey, several areas with anomalous signatures have been identified.

During the 2010 field season, a ground mapping and outcrop sampling program was completed. A total of 59 mapping stations were recorded: with 43 being rock-chip sample locations and 16 structural mapping points. There were no anomalous uranium results returned from the rock-chip samples.

In April 2010, 363 line kilometres of airborne electromagnetic (EM) survey using the TEMPEST system was flown over the Mount Howship project by FUGRO Airborne Surveys. The survey was completed in an attempt to map possible conductive zones that could be related to hydrothermal alteration in the sandstone and underlying basement. Interpretation of the TEMPEST data was also used to create a model of the depth to the unconformity. Specifically of interest were areas where the sandstone-basement unconformity is interpreted to be vertically offset.

In 2011, exploration activities consisted of outcrop sampling and reconnaissance mapping to follow up previously identified radiometric and structural anomalies. A total of 84 mapping stations were recorded, consisting of 46 rock-chip sample locations and 113 structural mapping points. In total, 46 samples were submitted for geochemical analysis. In addition, several weak uranium anomalies were identified and they warranted follow-up.

In 2012, two diamond core drillholes were completed for a total of 511.6 m. MHDD0001 intersected 97.0 m of Mamadawerre Sandstone, followed by alternating intervals of intense silica-flooded brecciation and Cahill Formation pelitic schist with intense hematite alteration down to EOH at 254.2 m. The precise depth of the unconformity is masked by brecciation. MHDD0002, drilled approximately 3.75 km to the southwest of MHDD0001, intersected 213.4 m of Mamadawerre Sandstone, followed by Cahill Formation pelitic schist down to 257.7 m. No significant structural disruption or hematite alteration was intersected in MHDD0002. No elevated radioactivity was intersected in any of the drillholes.

8.0 2013 EXPLORATION PROGRAM ACTIVITIES

In 2013 exploration activities were limited to desktop studies and detailed analysis of previously collected data. Historical data was re-visited, re-interpreted and properly categorised.

9.0 CONCLUSIONS AND RECOMMENDATIONS

Airborne geophysical surveys from previous years provide a number of prospective radiometric, magnetic and structural targets. Assay results from the 2011 surface sampling program and interpretation of the 2010 mapping work indicated several prospective areas

for drill test follow-up. Results of the 2012 drilling campaign confirmed the presence of the Cahill Formation underneath the Mamadawerre Sandstone and intersected a zone of strong hematite alteration that also warrants a further investigation.

Future exploration on the tenement may consist of testing several geophysical anomalies at the intersection of the Paleoproterozoic unconformity and northwest-trending structures (similar to the setting of MHDD0001, which intersected a zone of brecciation and intense hematite alteration), as well as investigation into the nature of regional northeast trending structures. In addition, several ground visits for mapping, geological reconnaissance, outcrop sampling, and a brief ground radiometric survey to the areas along these structures should also be planned.

A tenement wide airborne gravity survey (Heli-Falcon) may add valuable information to the existing geophysical dataset and may potentially map out in greater detail several structural trends that are not yet fully understood.

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