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## **ACTIVITIES REPORT – DECEMBER 2020 QUARTER**

### **EXPLORATION HIGHLIGHTS**

#### **Yilgarn (Gindalbie) Gold Project in Western Australia**

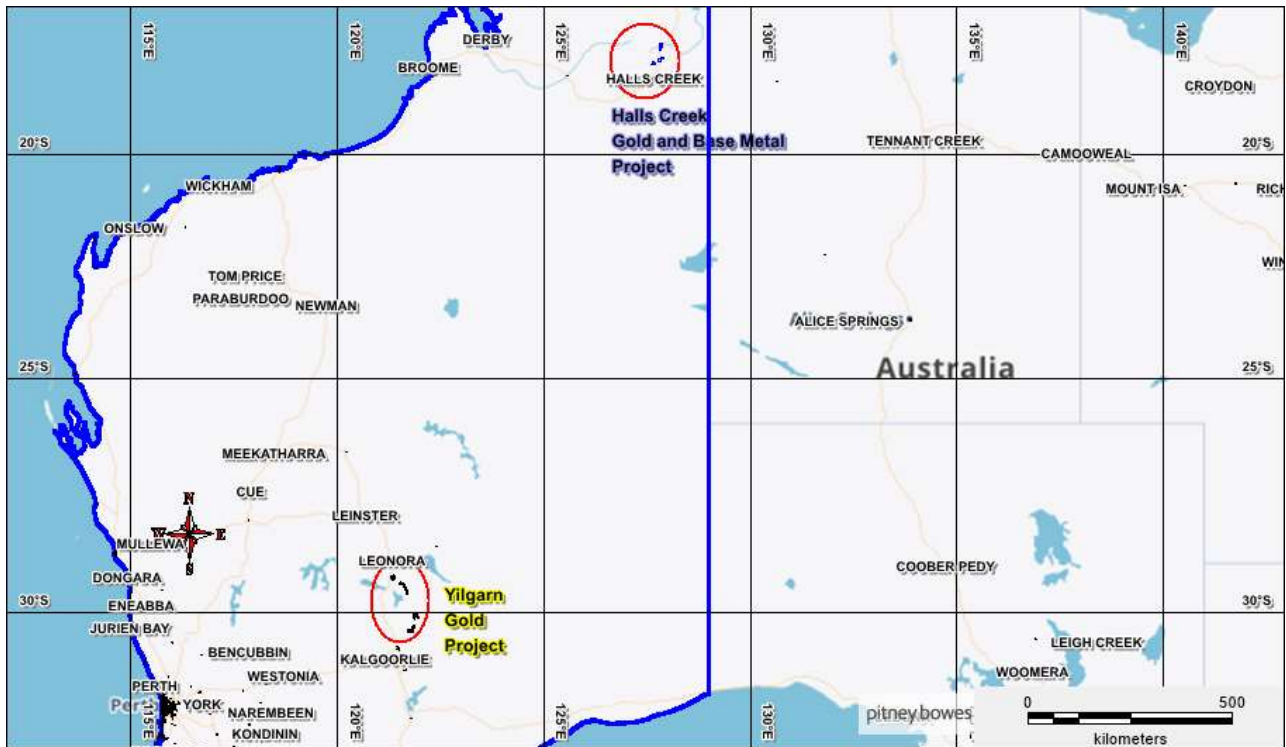
- Received results of 50 Aircore drillholes completed in September 2020 at Holey Dam and Canegrass prospects for 1,866 m with an average hole depth of 37 m. Significant results include 1 m @ 3.96 ppm Au from 48-49 m and 1m @ 0.88 ppm Au from 49-50 m downhole and 1m @ 1.08 ppm Au from 49-50 m downhole.
- An RC follow up drill program is envisaged for Quarter 1 2021 to be based on the results of the Aircore drilling at Holey Dam and Canegrass.

#### **Halls Creek Gold/Cobalt/Base Metals Project in Western Australia**

- State and region access and travel restrictions due to the COVID19 Pandemic have totally prevented the 2020 planned field work at the tenements which are within the Western Australian Kimberley Biosecurity Area. Planned field work may not occur before Quarter 2 2021 after the area wet season, however is subject to any access restrictions to the region imposed by Government.

#### **New Ventures**

- Following project generation work in the Northern Territory, the Company has delineated a new area near the historic gold producing centre of Tennant Creek and is currently working on gathering historical exploration data. The Company has not pursued the acquisition of the new gold venture in Queensland mentioned in the September Quarter 2020 Activities Report.



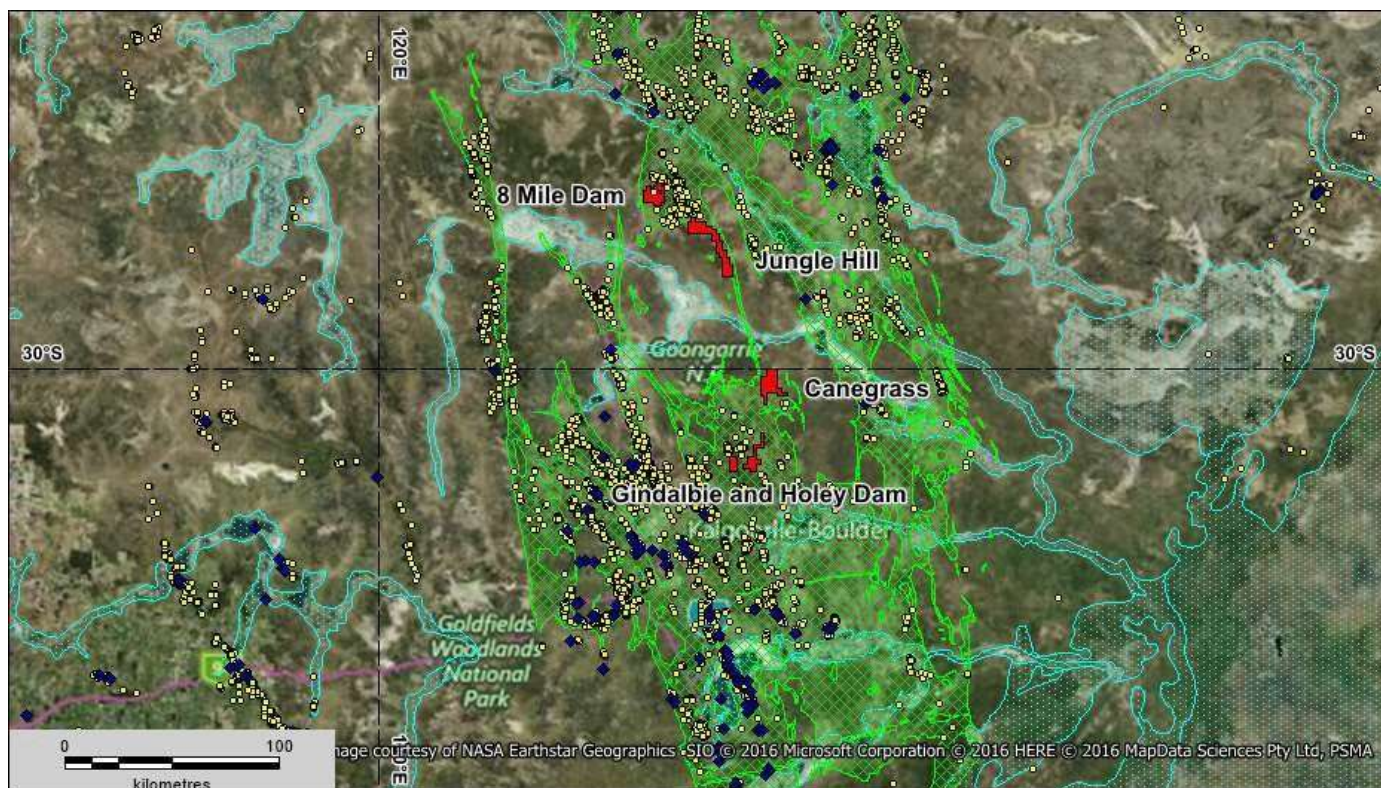
**Figure 1:** Kaili Resources project locations

### **Yilgarn Craton (Gindalbie and Kookynie) Gold and Iron Projects – Western Australia**

E40/354 (8 Mile Dam), E31/1114-I (Jungle Hill), E31/1113 (Canegrass), E27/550 (Holey Dam) and E27/549 (Gindalbie Dam) are held 100% by wholly owned subsidiary Kaili Gold Pty Ltd.



**Figure 2:** Kaili Resources Yilgarn Craton Projects Locations



**Figure 3:** Satellite Image with Eastern Goldfields Superterrane (green hatching). Kaili tenements in red. Blue diamonds are operating mines of third parties and yellow dots are gold occurrences reported by other explorers

### Aircore Drilling at Canegrass and Holey Dam

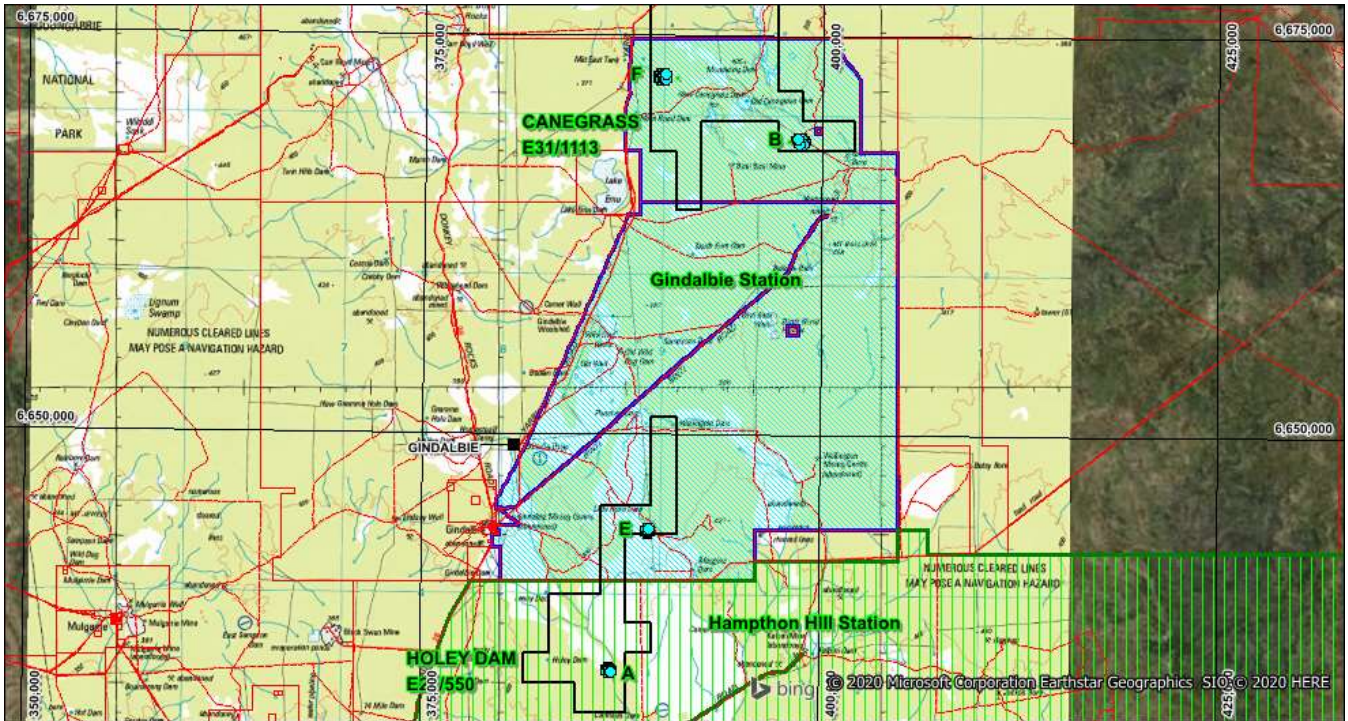
The drilling program was planned to be carried out in the March Quarter 2020 and had to be suspended because of the travel restrictions imposed by the WA Government to contain the spread of Covid-19 and it was successfully completed on 20<sup>th</sup> September 2020 after the Company decided in June 2020 to engage Kalgoorlie based geological consultancy BMGS to manage the program. The results of that drilling program were received in December 2020 with undue delays at the laboratory affected by high volume of work associated with an upturn in mineral exploration in WA. See ASX announcement of 3<sup>rd</sup> December 2020.

2,000 m metres Aircore drilling was planned to commence in the first half of August 2020 at the Canegrass (EL31/113) and Holy Dam (EL27/550) tenements. However, due to unavailability of a drilling rig the drilling operations commenced in mid-September 2020 and were finalised on the 20<sup>th</sup> September 2020. 1,866 m for 50 drill holes of Aircore drilling, 25 holes at Canegrass and 25 holes at Holey Dam gold prospects, was achieved with an average hole depth of 37 m. The completed drill areas are shown in **Figure 4** with areas F, B and E situated in Gindalbie Station and area A in Hampton Hill Station.

The Aircore drilling program follows from the shallow Vacuum Drilling program that was carried out in July and



August 2019 and completed at Holey Dam (HDAC001 to HDAC023) and Canegrass (CDAC001 to CGAC027). See ASX announcement of 12<sup>th</sup> September 2019 for the results of the Vacuum Drilling.



**Figure 4: Locations of Holey Dam and Canegrass Drill Areas**



**Holey Dam Aircore Drilling**

The sampling of the drilling comprised the collection of 4 m composites from each of the 50 drill holes. A PVC tube was inserted into each of the 4 m samples and the 4 samples were placed into a prenumbered calico bag. The bags were then placed into larger polywoven bags and transported to the ALS Geochemical Laboratory in Kalgoorlie for gold and multi element geochemical analyses.

Au was analysed by the Atomic Absorption method AA23 and Ca, As, Cr, Cu, Fe, Mn, Ni, Pb, Zn and S were analysed by the Portable XFX method pXRF-30. In addition, 107 selected composite samples were scanned by Spectral Mineralogy method HYP-PKG and interpreted for their mineralogical make up. A total of 530 composite samples were submitted for gold and multielement geochemistry and 100 samples were submitted for spectral mineralogy. A total of 54 samples were collected as sub sampling of the 4 m composites with the same analytical methods as the 4 m composite sampling.

The key elevated geochemical results of the drill sampling were as follows:

Gold (Au) – Seven ( 7) samples > 0.1 ppm to a maximum of 3.96 ppm.

Copper (Cu) – Five (5) samples > 200 ppm to a maximum of 620 ppm.

Zinc (Zn) – Six (6) samples > 300 ppm to a maximum of 420 ppm.

Sulphur (S) – Six (6) samples > 2% to a maximum of 4.1%.

The high Au result of 3.96 ppm was associated with 5,400 ppm Cr (Chromium) and 700 ppm Ni (Nickel).

The aim of the Aircore drilling was to drill the holes to a depth of at least the unweathered bedrock and this was achieved for all drill holes.

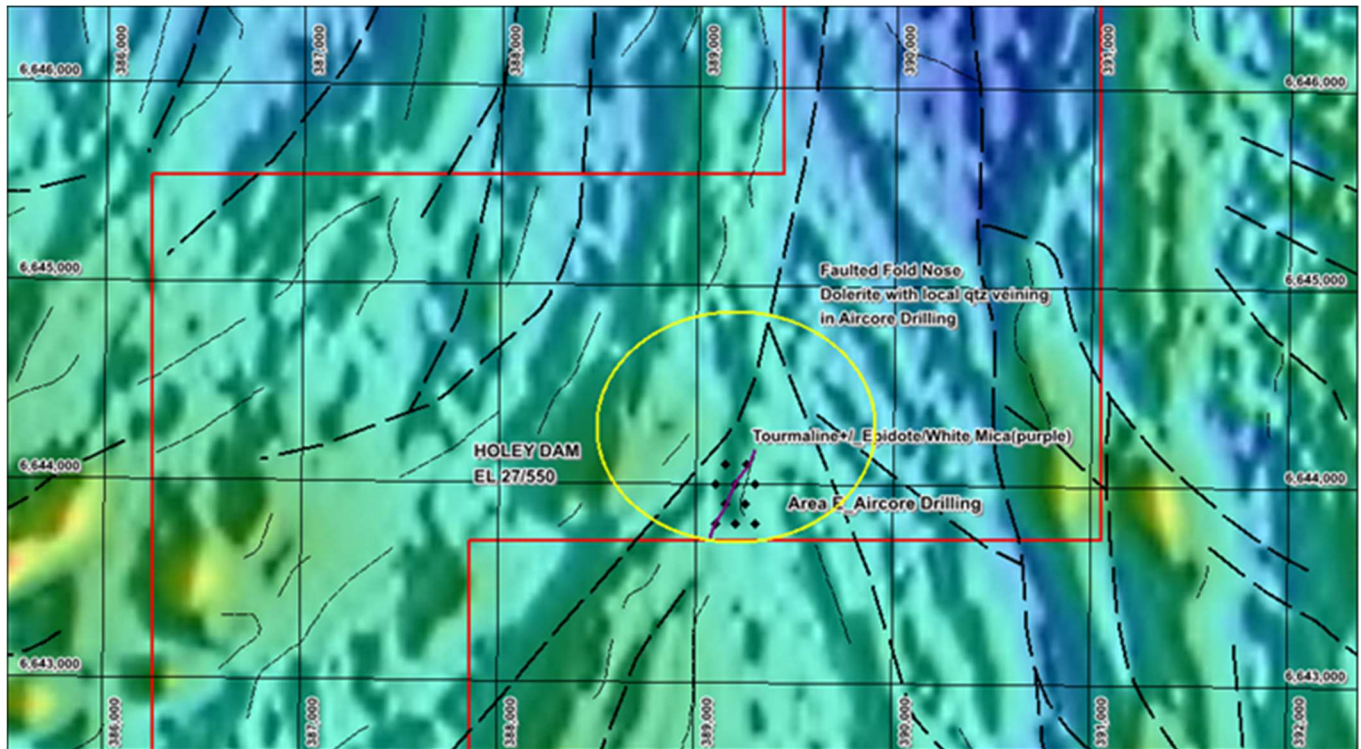
### **Holey Dam - Area A**

The drilling intersected primarily dolerite with depths to the base of saprolite of between 23 m and 50 m and was targeting the intersection of NW-SW and E-W linear magnetic highs which were both interpreted to be dolerite filled structures. There are several examples in the Yilgarn Craton of significant gold mineralisation exploited by open method adjacent and the south of E-W dolerite dykes and in this location the E-W dolerite dyke has been intersected by a known regional NW-SE mineralised structure. In two holes HDAC 007 and 012 quartz veining was noted in the dolerite and dolerite dominated in all drill holes however there was no significant gold mineralisation.

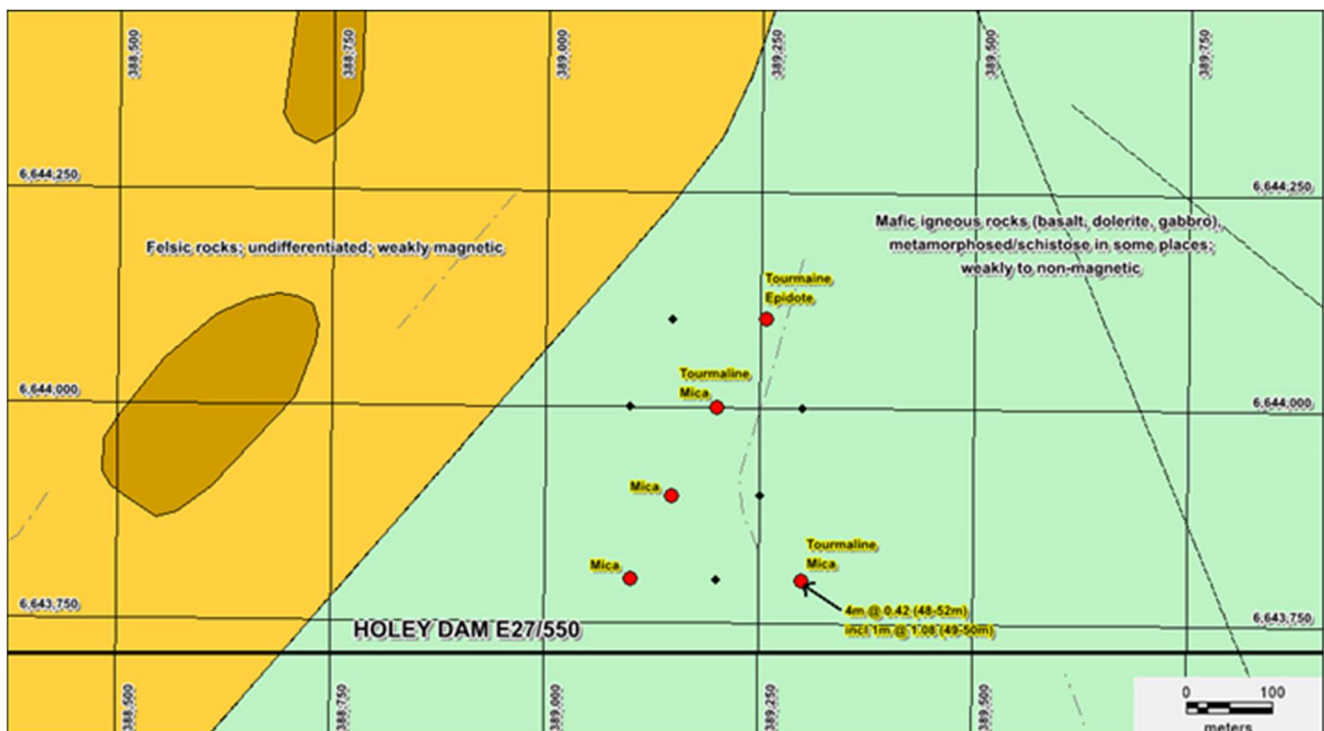
### **Holey Dam - Area E**

The drilling intersected primarily dolerite and ultramafic rocks at similar depths to Area A (**Figures 4 and 5**). Quartz veining was noted in HDC 0016 and 018. With 4 m @ 0.29 ppm Au from 25 m to 29 m and 4 m @ 0.42 ppm Au from 48 m to 52 m including 1 m @ 1.08 ppm Au from 49 m to 50m in a quartz veined dolerite. The target was a folded mafic sequence adjacent to a faulted contact to the west with a felsic sequence. A float sample of ferruginous vein quartz was collected within the folded mafic sequence and returned 2.48 ppm Au. Follow up RC drilling is planned for Holey Dam Area E (**Figure 5**)





**Figure 5:** Holey Dam Drilling Area E showing a zone of tourmaline and white mica alteration in purple



**Figure 6:** Holey Dam Drilling Area E the tourmaline/mica trend within mafic volcanic rocks and the elevated Au results

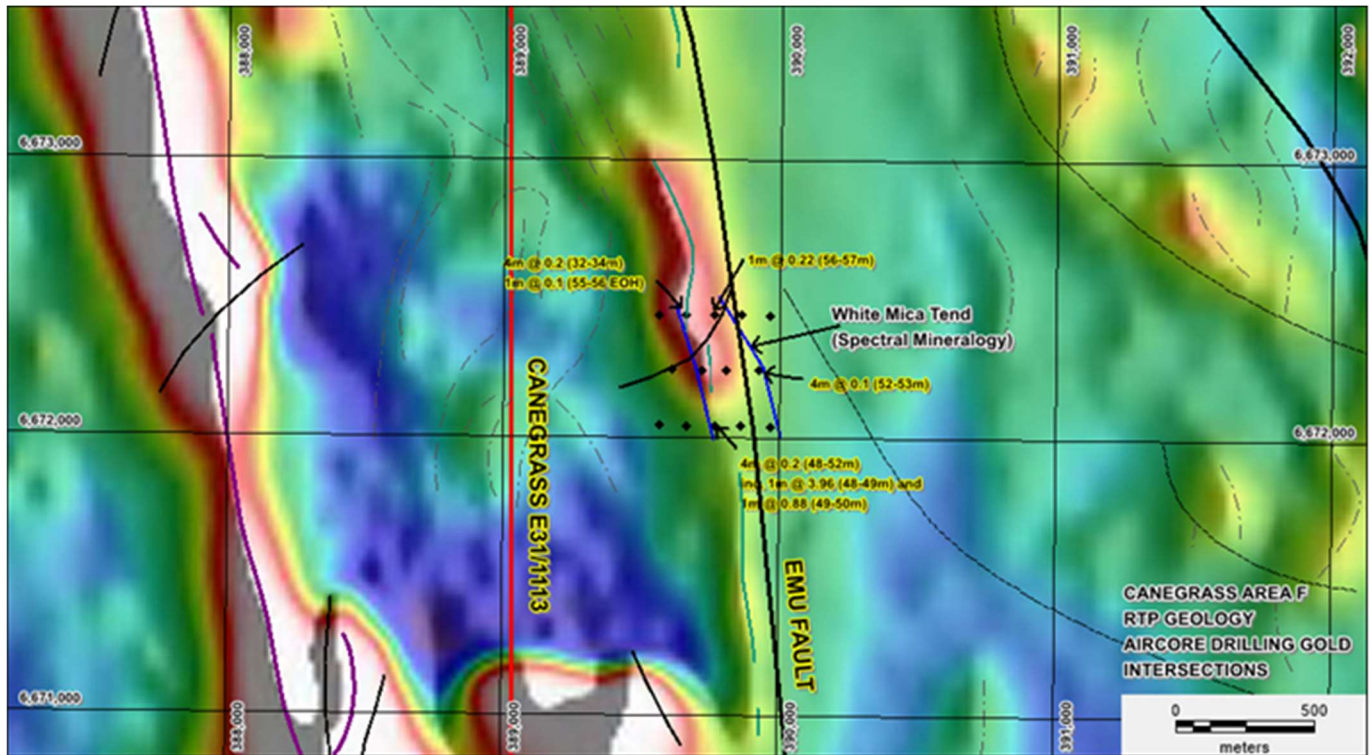
Holey Dam Area E was drilled in an interpreted fold closure comprising mafic lithologies with the limbs of the fold being possible faulted contacts (**Figure 5**). The drilling resulted in gold assays generally <0.1 ppm over 4 m composites apart from HDAC016 having an intercept of 4 m @ 0.42 ppm Au including 1 m @ 1.08 ppm from 49 -50 m and 1m @ 0.15 ppm Au from 51-52 m (EOH 53m). The drilling encountered mainly dolerite with local quartz veining in some drill intercepts. Selected samples were submitted for spectral mineralogy with a clear trend of tourmaline and white mica noted in the samples (**Figure 6**). Both tourmaline and white mica are common alteration products in some Yilgarn Systems and not primary mineralogy in an unaltered dolerite.

#### **Canegrass - Area B**

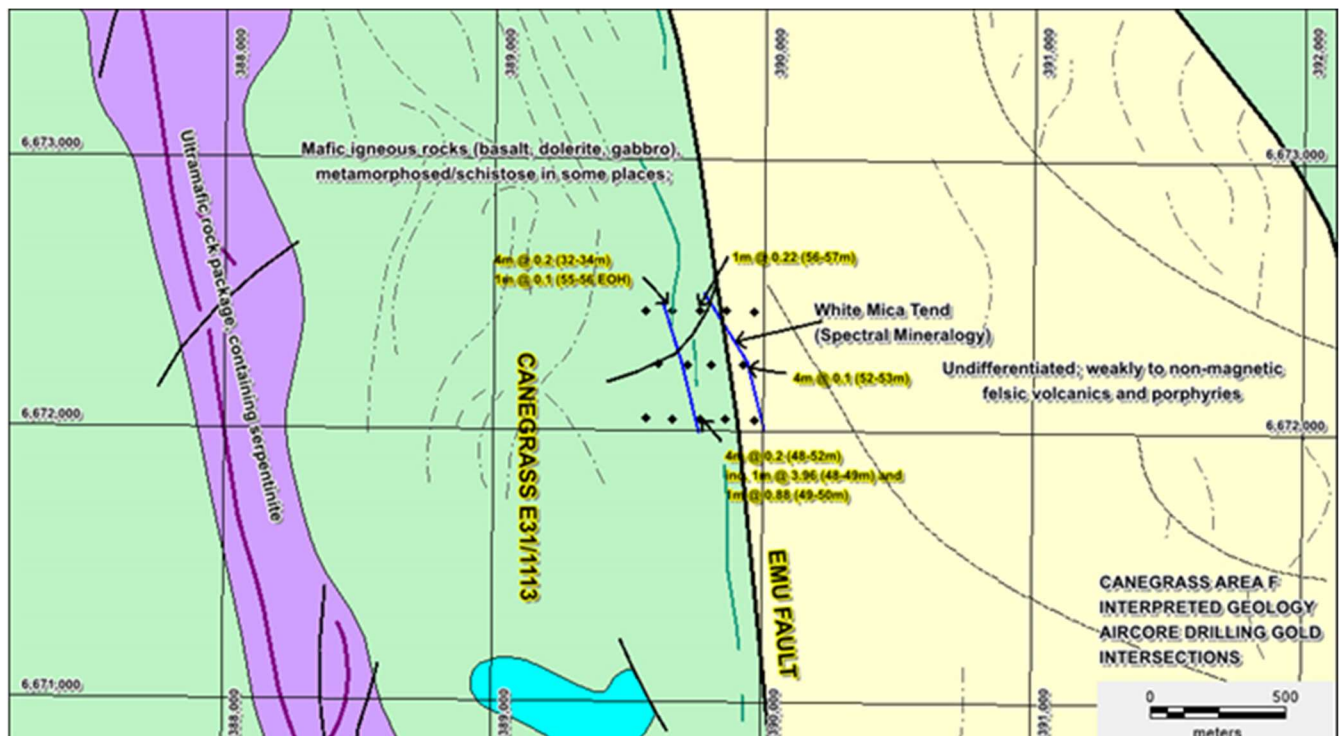
A variably altered gabbro with local disseminated pyrite and quartz veining was intersected in all drill holes. There was alteration noted in the drill chips and from the spectral mineralogy clays such as kaolinite, nontronite and montmorillonite were noted in abundance which are likely the saprolite weathering products of the gabbro. Chlorite was also noted in several samples up to about 20% and may be a weathering product or it could be an alteration product. There were no significant gold results, and no further drilling is warranted.

#### **Canegrass - Area F**

A similarly altered and mineralised gabbro was intersected in this area as was intersected in Area B in addition to basalt and ultramafic lithologies. Again, kaolinite and montmorillonite clays and chlorite dominate as they did in Area B. White mica was slightly more dominant than in Area B however, there was a small amount of carbonate noted in a few samples and this is likely an alteration effect as is the white mica which forms a distinct N-S zone adjacent to the Emu Fault in association with a linear magnetic high. The drilling in Area F targeted the regionally gold mineralised Emu Fault (**Figure 7**) and at the Area F location a linear magnetic high is adjacent and to the west of the interpreted position of the Emu Fault. Significant Au assays were returned from all three drill traverses including 1 m @ 0.48 ppm Au, [1 m @ 0.88 ppm](#) Au and 1 m @ 3.96 ppm Au. Follow up RC drilling is planned for Canegrass Area F. The interpreted geology shows area F as being located at the contact of mafic and felsic lithologies that marks the interpreted location of the Emu Fault which will be the target of the next round of drilling (**Figure 8**).



**Figure 7:** Holey Dam Drilling Area F on a magnetic image showing the regional Emu Fault, elevated gold geochemistry and the white mica alteration trend



**Figure 8:** Holey Dam Drilling Area F on interpreted geology and the location of the mineralised trend at the contact of mafic and felsic volcanics



## **Forthcoming Field Exploration**

In the March Quarter 2021, the Company envisages a 2,000 m RC drilling program to follow up the Aircore drill results in Canegrass Area F and Holey Dam Area E. A field team will establish collar and siter pegs at the proposed drill sites, ahead of the drilling proposal being lodged with the WA Department of Mines Industry Regulation and Safety (DMIRS). On receipt of the DMIRS approval a drilling company and a field crew based in Kalgoorlie will be engaged having regards to uncertainty on access and travel restrictions in Western Australia.

## **Halls Creek – (Black and Glidden, Carrington, Sandy Creek and Wild Dog) Cobalt/Gold Projects**

*E 08/5112, 5113, 5114 and 5115 are held 100% by wholly owned subsidiary Kaili Iron Pty Ltd.*

The Halls Creek tenements are within the Western Australian Kimberley Biosecurity Area which has been locked down since March 2020 by order of the Federal Health Minister to protect the Aboriginal communities from the Covid-19 infection. Consequently, the field program that was planned for March to October 2020, the annual field season outside the wet season, for the Halls Creek tenements has been suspended. Therefore, the Company has to wait for the 2021 field season starting April 2021 to carry out the program prepared since March 2020, subject to any access restrictions imposed by the Government.

Since the grant of the tenements the Company has completed the acquisition and processing of all available airborne magnetic, radiometric, gravity and electromagnetic data covering the 4 tenements and completed lithostructural targeting for field follow up. The Company has also engaged Earth-AI to use an Artificial Intelligence approach to merge all publicly available geochemical, geological, and geophysical data to generate targets for field follow up.

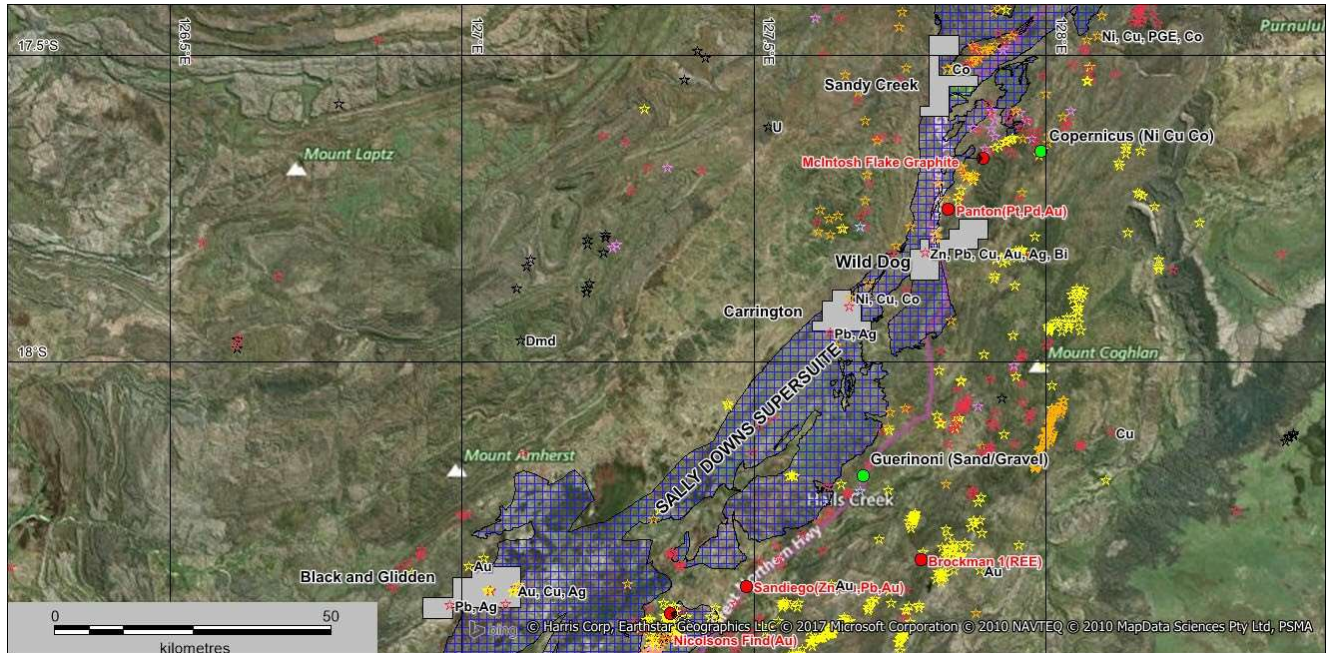
The planned Phase 1 exploration program comprises a combination of helicopter, vehicle and foot traverse field surveys based out of Halls Creek. A combination of rock, stream and soil samples is planned to be collected and submitted to the ALS Geochemical Laboratory in Perth for Au and multi element analyses in conjunction with pXRF readings using the Company's Olympus Delta instrument

## **Geology of the Tenements**

The Halls Creek Project comprises 4 granted tenements (**Figure 9**) situated within the NE-SW trending Lamboo Province comprising 4 tectonostratigraphic terranes – Western, Central and Eastern.

The western terrane is postulated to be an exotic crustal fragment that was accreted to the Kimberley Craton before 1900 Ma via north-westerly directed subduction. Easterly directed subduction led to the development of an oceanic arc at c. 1865 Ma, outboard of the Kimberley Craton; this initiated the formation of the Central Zone. Eastern Zone rocks are associated with a passive continental margin linked to the North Australian Craton. The Central Terrane comprises a broad suite of felsic to lesser mafic rocks, the Sally Downs Supersuite within which occurs a subsuite of gabbro to norite dominated rocks known as the Sally Malay and McIntosh Suites. The Sally

Malay nickel-copper sulphide deposit lies at the base of a small layered intrusion enclosed within granulite facies garnet-cordierite paramigmatites and mafic granulates norite which host most of the mineralization are interpreted as a chilled border zone to the intrusion, into which settled an early separated sulphide liquid. The Hall Creek Project is situated primarily within gabbro to norite rocks of the McIntosh Suite.

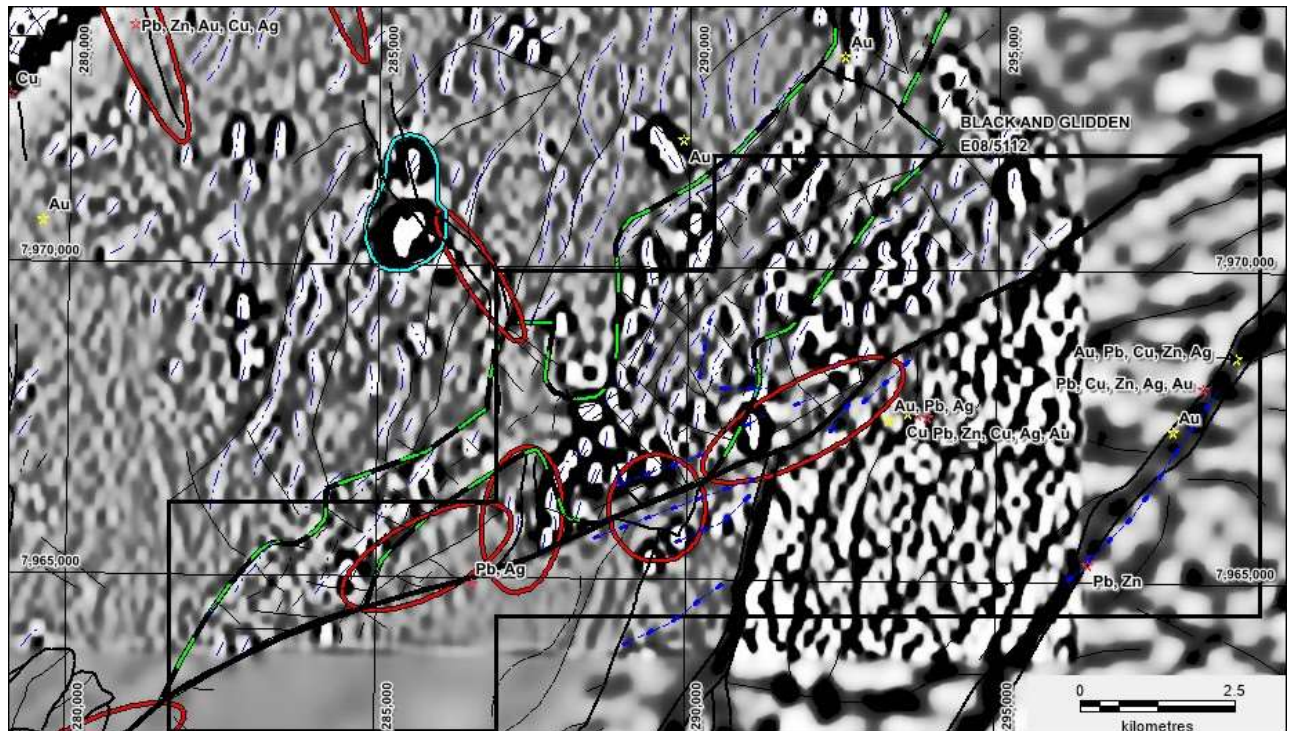


**Figure 9:** Halls Creek Project showing the 4 tenement located in the vicinity of Halls Creek

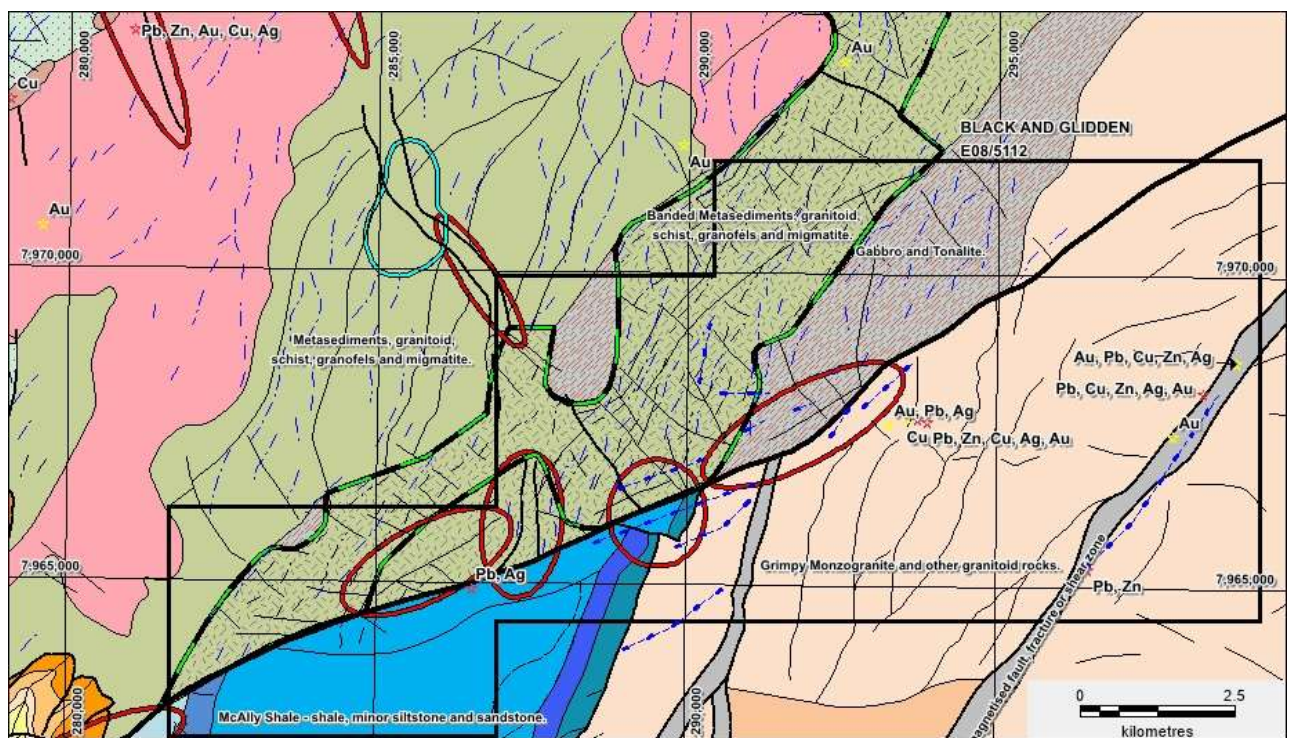
### **Black and Glidden E08/5112**

The Black and Glidden tenement is located 100 km west of Halls Creek with the dominant structure being the NE/SW trending Black and Glidden fault which forms a linear topographic feature to the south of the abandoned Mt Amhurst station. A small amount of Pb and Ag was mined from the Black and Glidden mine in the SW of the tenement with a report indicating the mineralisation was associated with a surface gossan. Elevated gold results were obtained from granite hosted quartz veins in the SE of the tenement associated with NE/SW trending shear zones. Several target zones have been delineated as shown in **Figures 10 and 11** with the main focus being structurally hosted Au mineralisation. There has been no historical drill testing of the Black and Glidden tenement.





**Figure 10:** Black and Glidden tenement showing 2VD aeromagnetics, structures and targets

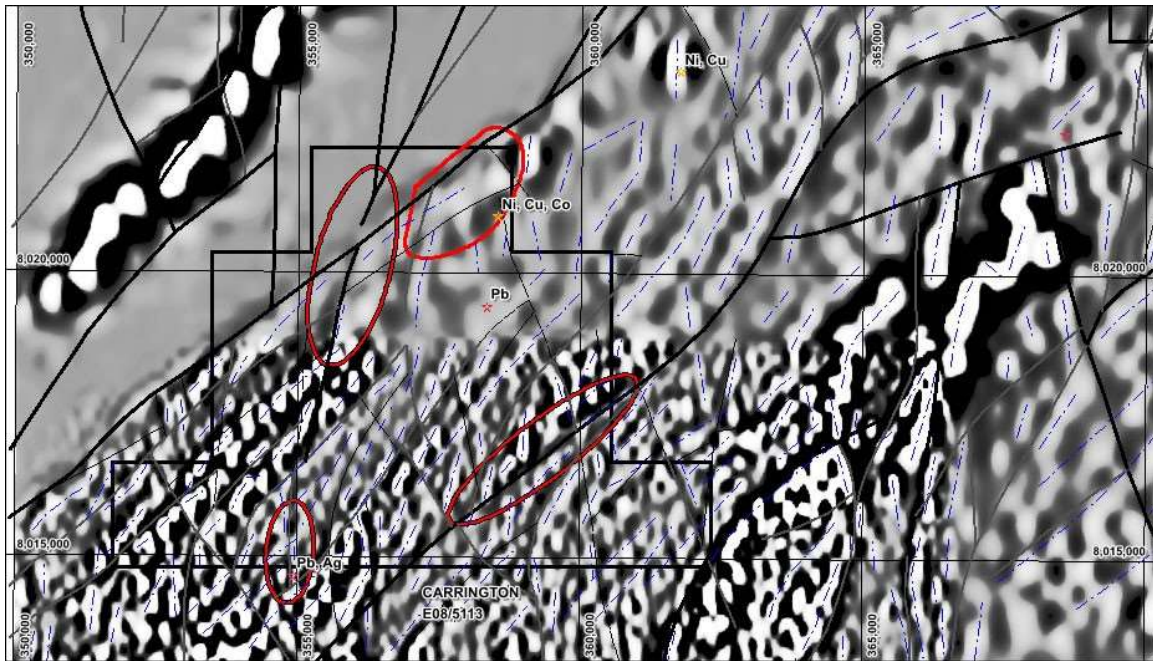


**Figure 11:** Black and Glidden tenement showing interpreted geology, structures and target

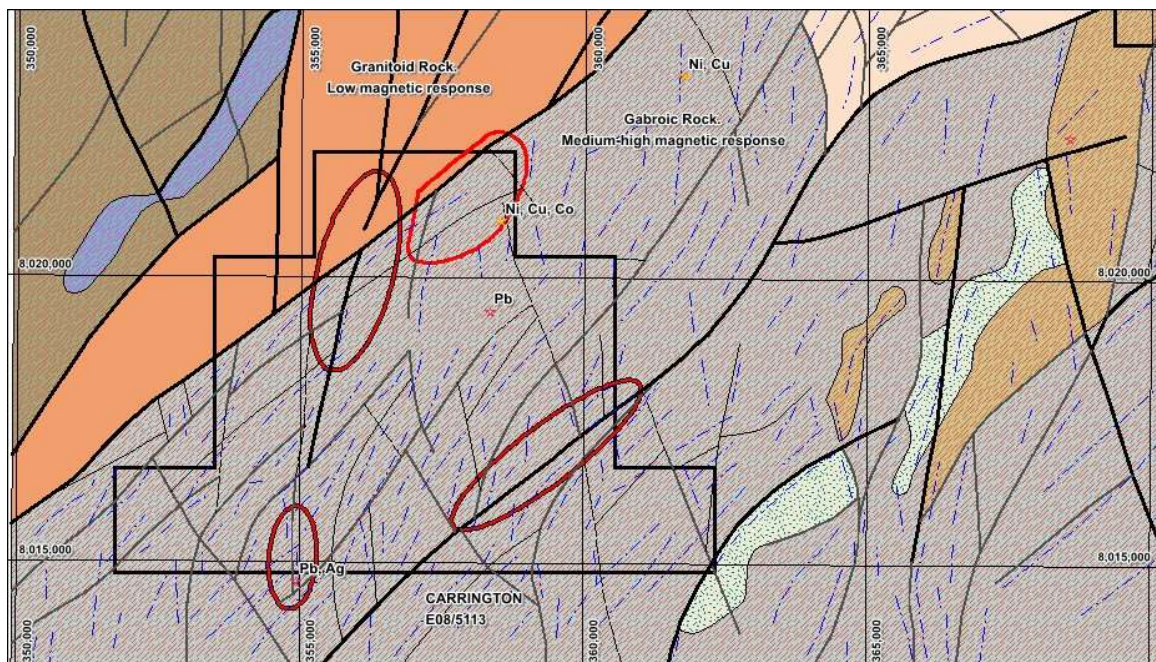


## Carrington E08/5113

The Carrington tenement (**Figures 12 and 13**) comprises primarily the McIntosh gabbro/norite which is the main Co/Ni target for the Company in addition to other structural gold/base metal targets delineated by the SCG team. An historical Nickel (Ni) Copper (Cu) Cobalt (Co) mineral occurrence is located in the north of the tenement and is associated with a discrete ElectroMagnetic (EM) conductor as shown in **Figure 14**.

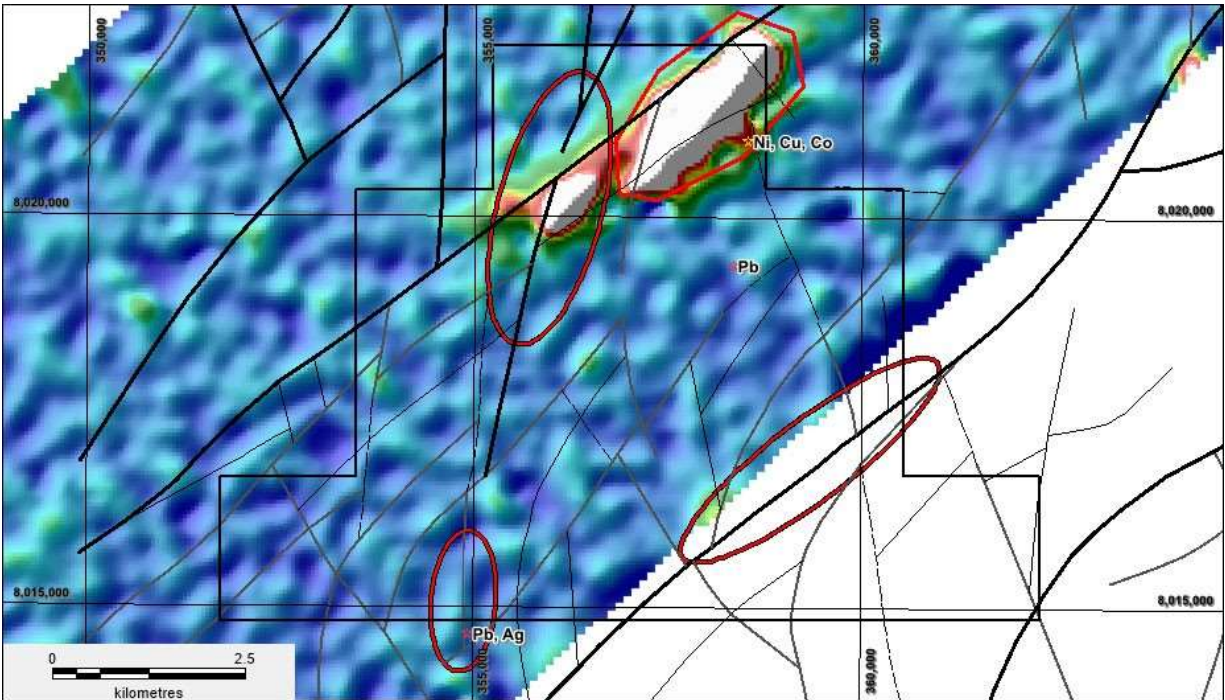


**Figure 12:** Carrington tenement showing 2VD aeromagnetics, structures and targets



**Figure 13:** Carrington tenement showing interpreted geology, structures and targets

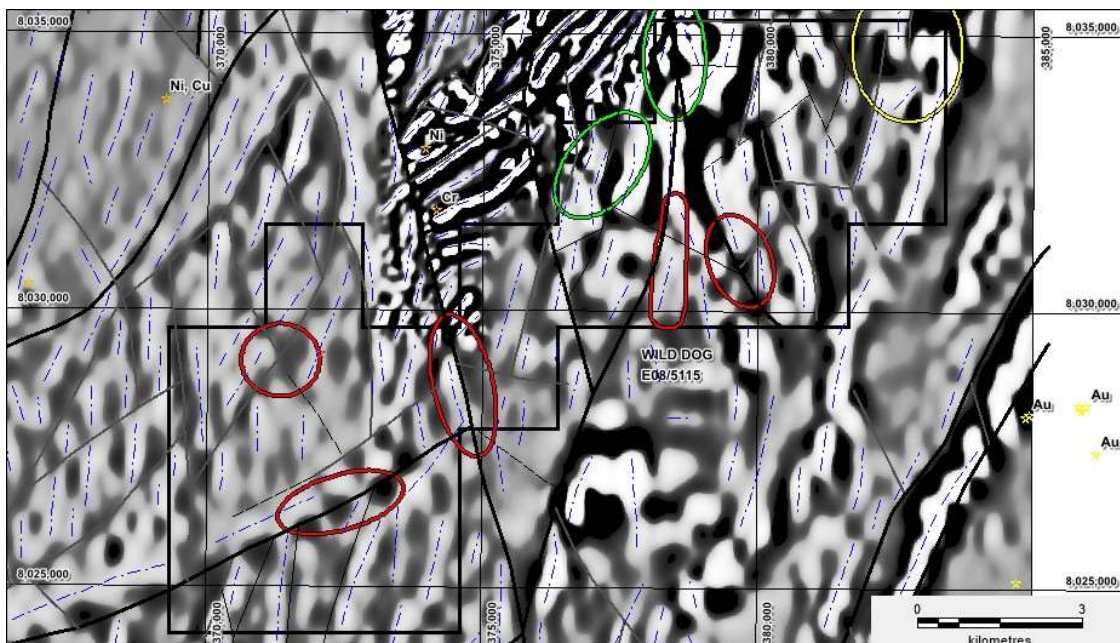




**Figure 14:** Carrington tenement showing airborne EM image and conductive feature in the north

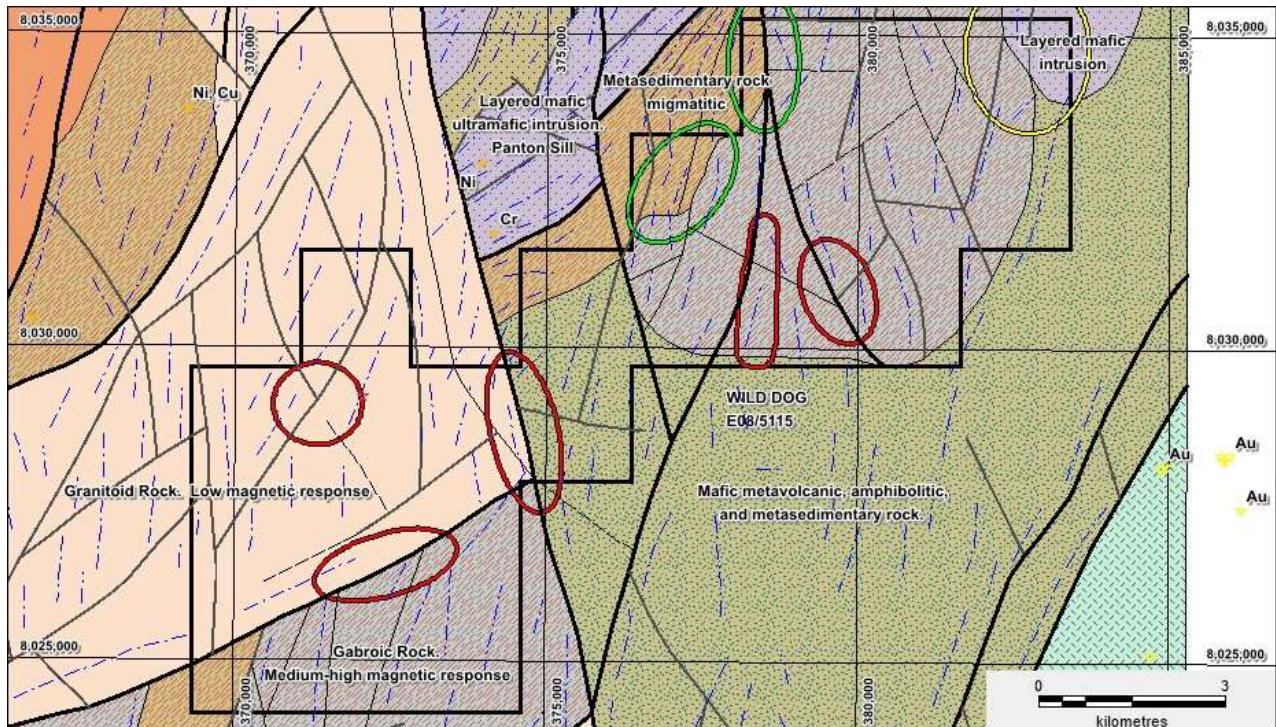
#### **Wild Dog E08/5114/Sandy Creek E08/5115**

The Wild Dog and Sandy Creek tenements (**Figures 15 to 16**) are structurally complex and comprise layered mafic/ultramafic intrusions and McIntosh gabbro/norite in the north and south of the tenement. A series of Cu, Ni workings are aligned NE/SW to the north of the Sandy Creek with the same lithostructural contact extending into the Sandy Creek tenement and associated with a linear EM conductor.

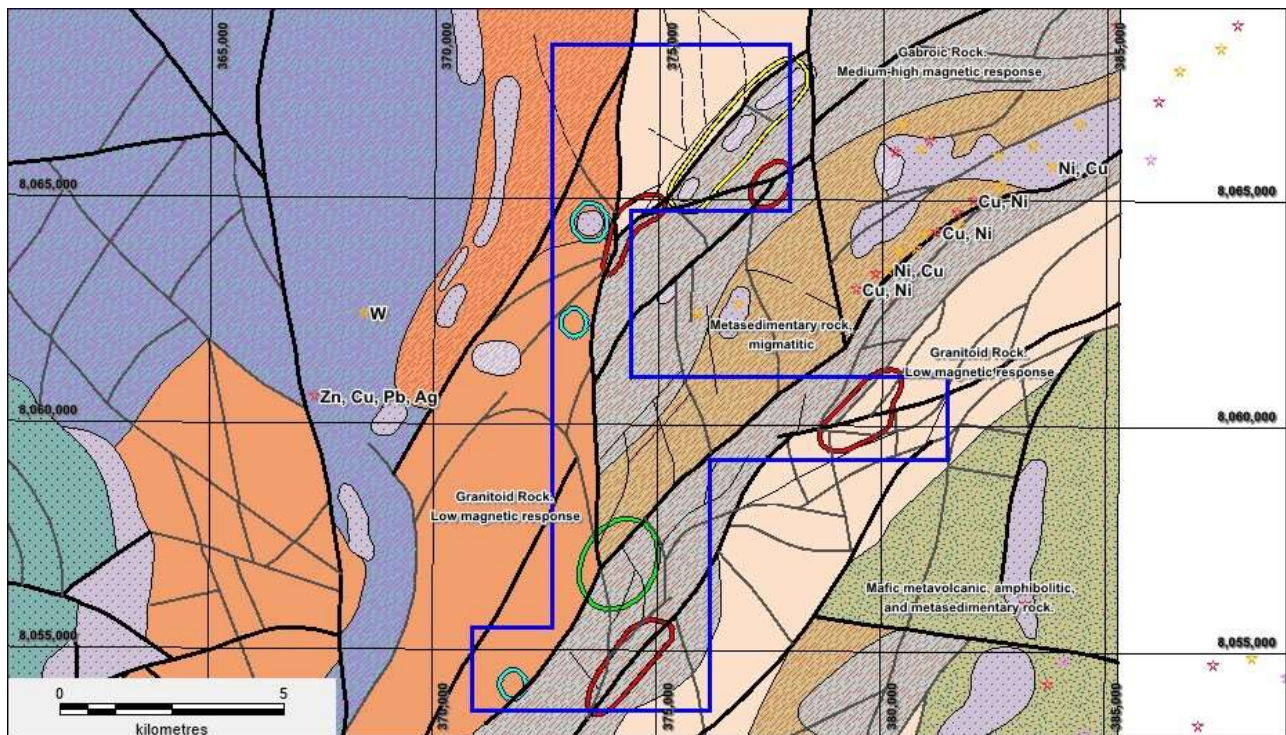


**Figure 15:** Wild Dog tenement showing 2VD aeromagnetics and target areas





**Figure 16:** Wild Dog tenement showing interpreted solid geology, structures and target areas



**Figure 17:** Sandy Creek tenement showing interpreted solid geology, structures and target areas



## LICENCES STATUS

Pursuant to ASX Listing Rule 5.4.3 the Company reports as follows in relation to minerals tenements (**Table 2**) held at the end of the December 2020 quarter and their locations. No tenements were acquired or disposed of during that quarter.

Name	Commodity	Region	Registered Holder	Beneficial Interest	Area km2	Expiry
8 Mile Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	70.4	7/07/2021
Jungle Hill	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	150.4	29/05/2021
Canegrass	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	108.8	29/05/2021
Holey Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	67.2	31/06/2021
Gindalbie Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	25.6	31/06/2021
Black and Glidden	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	103.04	31/08/2023
Carrington	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	51.2	31/08/2023
Sandy Creek	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	64	31/08/2023
Wild Dog	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	70.4	31/08/2023
					711.0	

### *Tenement schedule*

#### **Competent Person Statement**

*The information in the report above that relates to Exploration Results, Exploration Targets and Mineral Resources is based on information compiled by Mr Mark Derriman, who is the Company's Consultant Geologist and a member of The Australian Institute of Geoscientists (1566).*

*Mr Mark Derriman has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activities which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Mark Derriman consents to the inclusion in this report of matters based on his information in the form and context in which it appears.*

#### **Forward-Looking Statement**

*This document may include forward-looking statements. Forward-looking statements include, but are not limited to, statements concerning planned exploration program and other statements that are not historical facts. When used in this document, the words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although Kaili Resources Limited believes that its expectations reflected in these forward looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.*

*Authorised by:*

**Jing Li - Director**

**Long Zhao - Director and Company Secretary**

29<sup>th</sup> January 2021