

## QUARTERLY ACTIVITIES REPORT – 31<sup>st</sup> DECEMBER 2019

### EXPLORATION HIGHLIGHTS

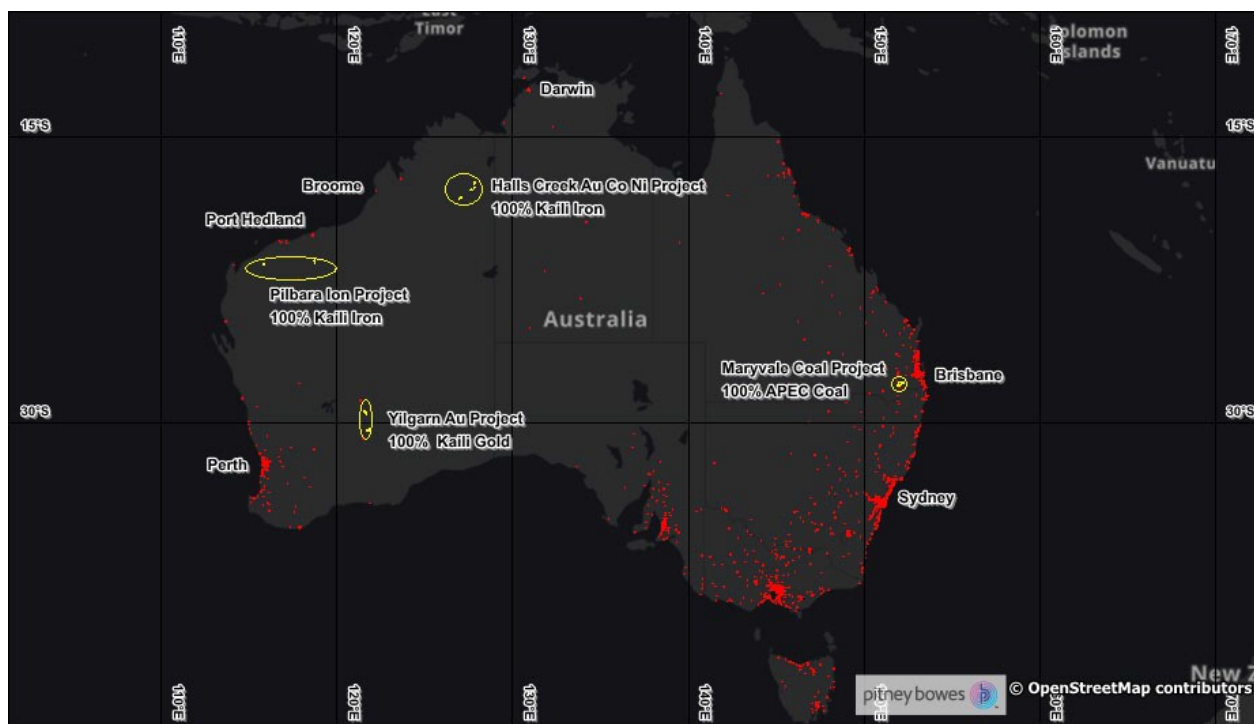
- All granted tenements are up to date regarding statutory requirements.

#### Gindalbie Gold Project in Western Australia

- Canegrass and Holey Dam RAB follow up drilling being planned

#### Halls Creek Cobalt/Nickel/Gold Project in Western Australia

- Lithostructural targeting completed with field testing planned for first half of 2020.



**Figure 1:** Kaili Resources project locations with granted tenements

PROJECT LOCATION	TENEMENT AREA IN SUB BLOCKS	TENEMENT AREA IN KM <sup>2</sup>
Queensland	27	86.4
Western Australia	296	956.84
<b>Total Area</b>	<b>323</b>	<b>1,043.24</b>

**Table 1:** Kaili Resources granted tenement areas, all held 100%.

*km<sup>2</sup> has been calculated at approximately 3.2km<sup>2</sup> per block*

## WESTERN AUSTRALIA

### Pilbara Craton (Darnell Hill, Bustlers' Bore and Bea Bea Creek) Iron Projects

E08/2770-I(Darnell Hill), E46/1084-I(Bustler Bore), E45/4619-I(Bea Bea Creek) are held 100% by wholly owned subsidiary Kaili Iron Pty Ltd. All tenements are granted (**Figure 2**)



**Figure 2:** Kaili Resources WA Pilbara Craton iron projects showing iron ore mines of third parties as brown diamond

The Mugarinya Community are yet to provide a monitoring budget and approval for the Company's proposed Work Program within the Bea Bea Creek tenement. As the work programs for Bea Bea Creek and Darnell Hill will be carried out in the same time period no field work for either project was completed in the December Quarter. Due to access difficulties with local community for Bea Bea Creek and disappointing results from surficial geochemical sampling and geological mapping in conjunction with likely thin development of BIF layer from historical drilling results at the Bustler Bore project, the Company has decided to relinquish the three(3) Pilbara Craton Iron tenements.

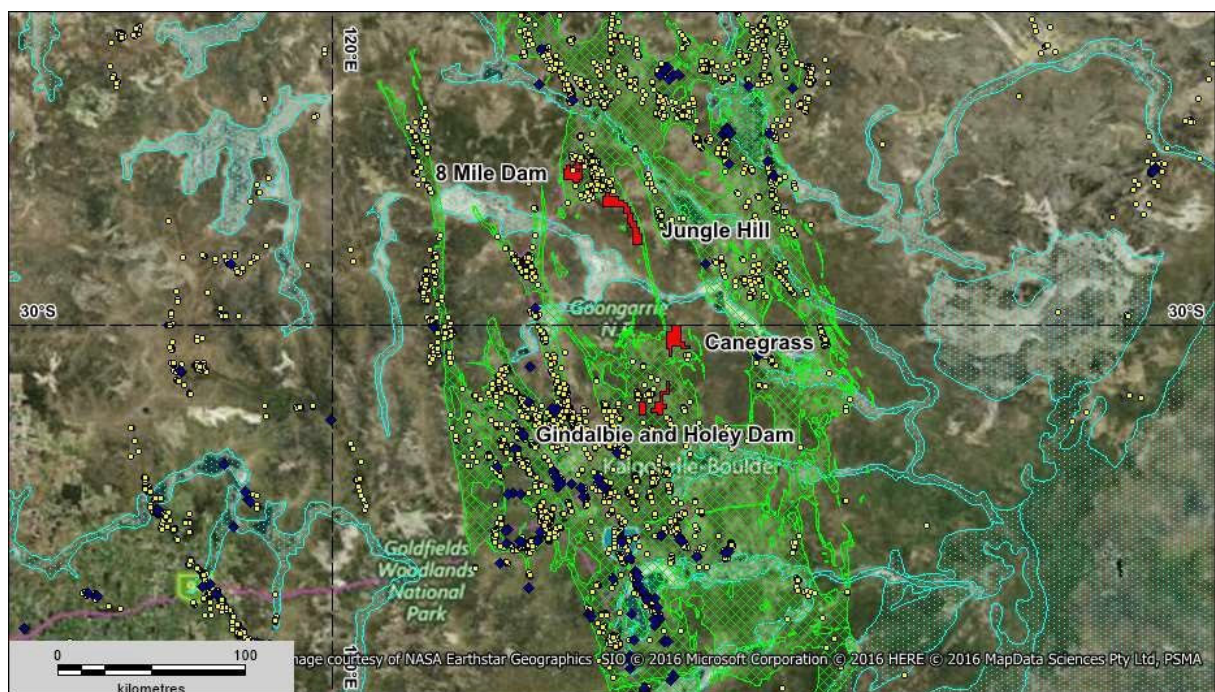


### Yilgarn Craton (Gindalbie and Kookynie) Gold and Iron Projects

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. All tenements are granted (**Figure 3**).



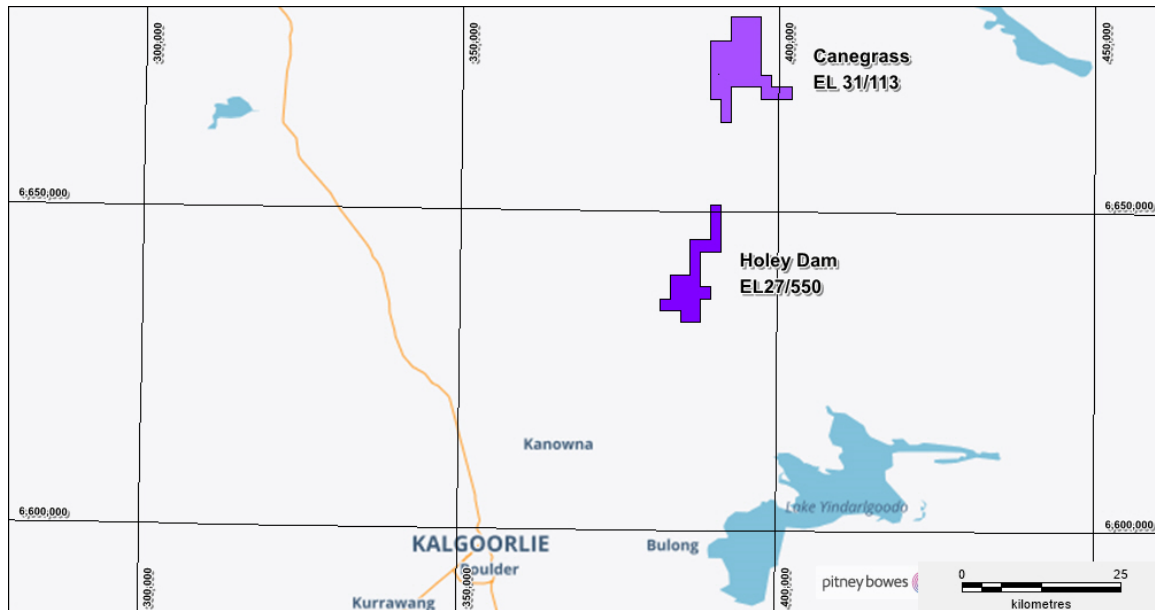
**Figure 3:** Kaili Resources WA Yilgarn Craton Gold Projects Locations



**Figure 4:** Satellite Image with Eastern Goldfields Superterrane (green hatching) and Kaili Gold tenements in red. Blue diamonds are operating mines of third parties and yellow dots are gold occurrences reported by other explorers

## Canegrass and Holey Dam Vacuum Drilling

During the September Quarter 2019, Kaili Gold (100% subsidiary of Kaili Resources) completed drilling on its Gindalbie Gold Project located 50 km north of Kalgoorlie in Western Australia (**Figure 5**). The drilling was finalised in August within Els 31/113 (Canegrass) and 27/550 (Holey Dam). A total of 389 vacuum drill holes were completed for 5 areas at Holey Dam and 6 areas at Canegrass. The total drill advance was 1,520 m and the average drilling depth was 4 m. Due to thick bush, 8 of the planned Canegrass drill holes were not completed.



**Figure 5:** Gindalbie Gold Project Location

## Canegrass EL31/113

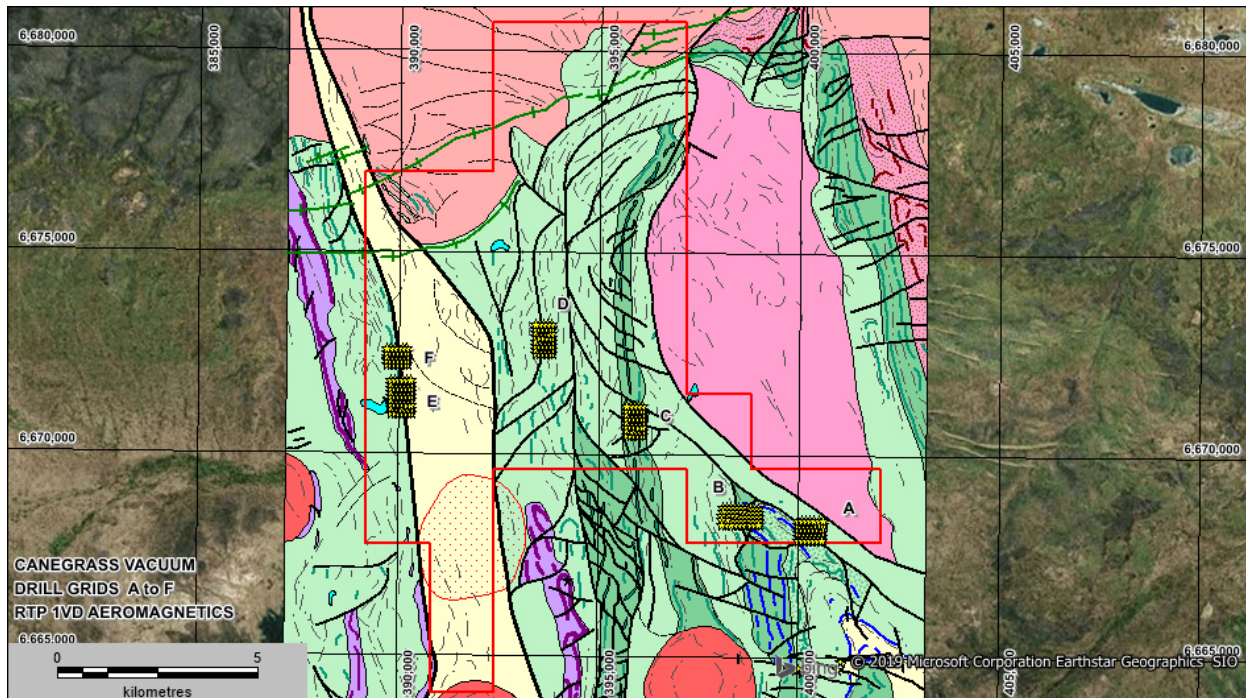
**Figure 6** is a lithostructural interpretation of the Canegrass Project which is dominated by mafic lithologies (green) with lesser felsic volcanics (yellow) and granite (red). The areas to be drill tested were chosen using a mixture of recent surficial geochemical results and structures associated with mafic lithologies. The drill rig chosen leaves a very small environmental footprint and no access tracks are required to get to the drilling grid. **Figures 6 and 7** show the same drill grids over a RTP 1VD aeromagnetic image and the structural interpretation that was derived from an interpretation of that and other geophysical data sets.

Of the six drill grids in the Canegrass tenement the vacuum drilling program has delineated four of them for further deeper drill evaluation (A, B, E and F). Areas A and B comprise elevated gold in vacuum drilling associated with a mineralised NW trending fold structure and faulting. This form of structural disruption associated with folding south of the tenement is associated with gold mineralisation. Area F and to a lesser extent E are associated with the N-S trending Emu Fault which along strike to the north is associated with gold mineralisation.

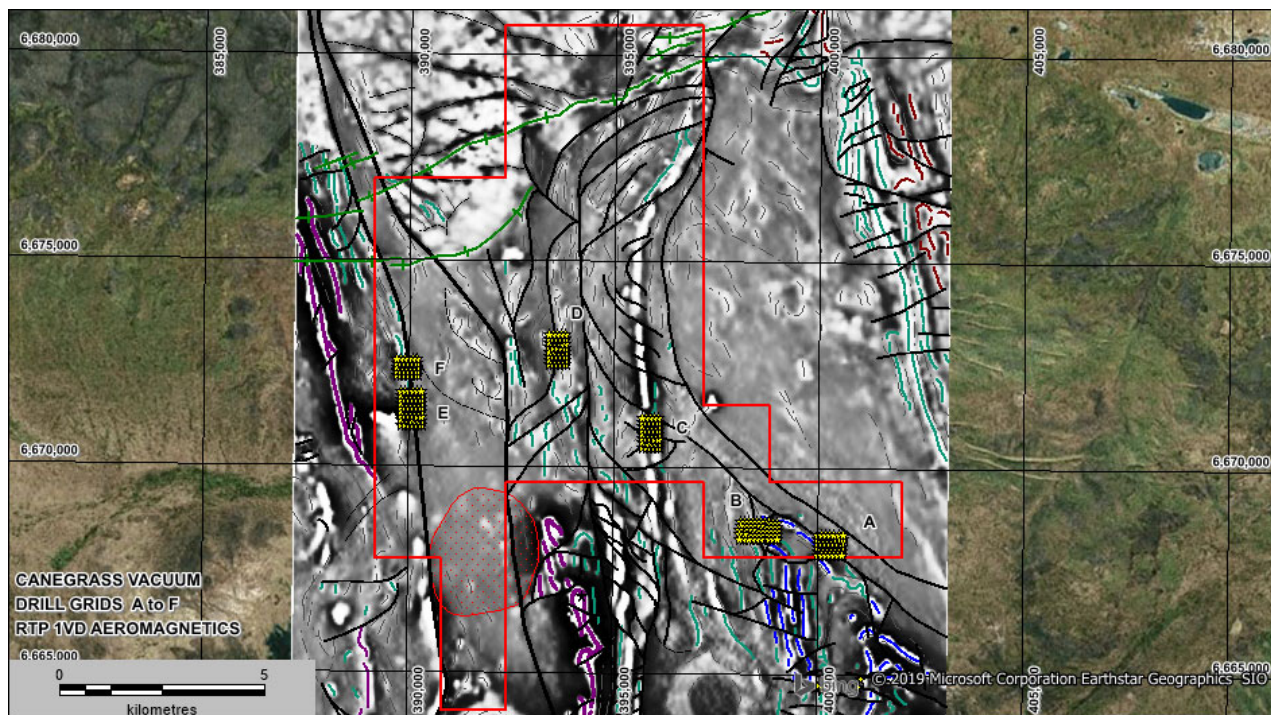
Drill testing of Areas A and B (**Figures 8 and 9**) returned two areas of elevated Au in the range of 10-25 ppb in fold axis/limbs settings. Several pot fold faults are evident in the image and may have been conduits for mineralising fluids.



Drilling within Areas E and F highlighted an area of elevated Au in drilling in Area F and is located at the faulted contact of felsic and mafic lithologies (Figure 10). The area produced the highest Au response in the Canegrass drilling program and will one of the areas to be followed up by deeper drill testing.

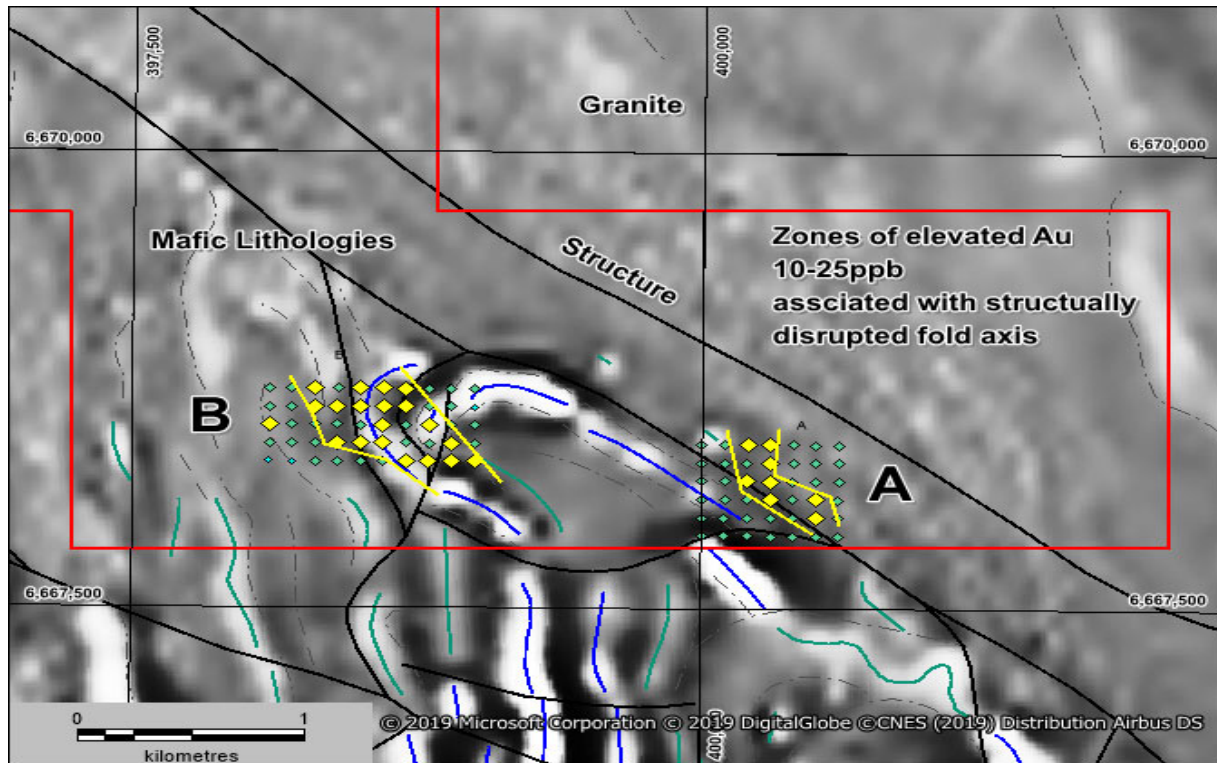


**Figure 6: Canegrass Project – Geological Interpretation and Vacuum Drill Grids**

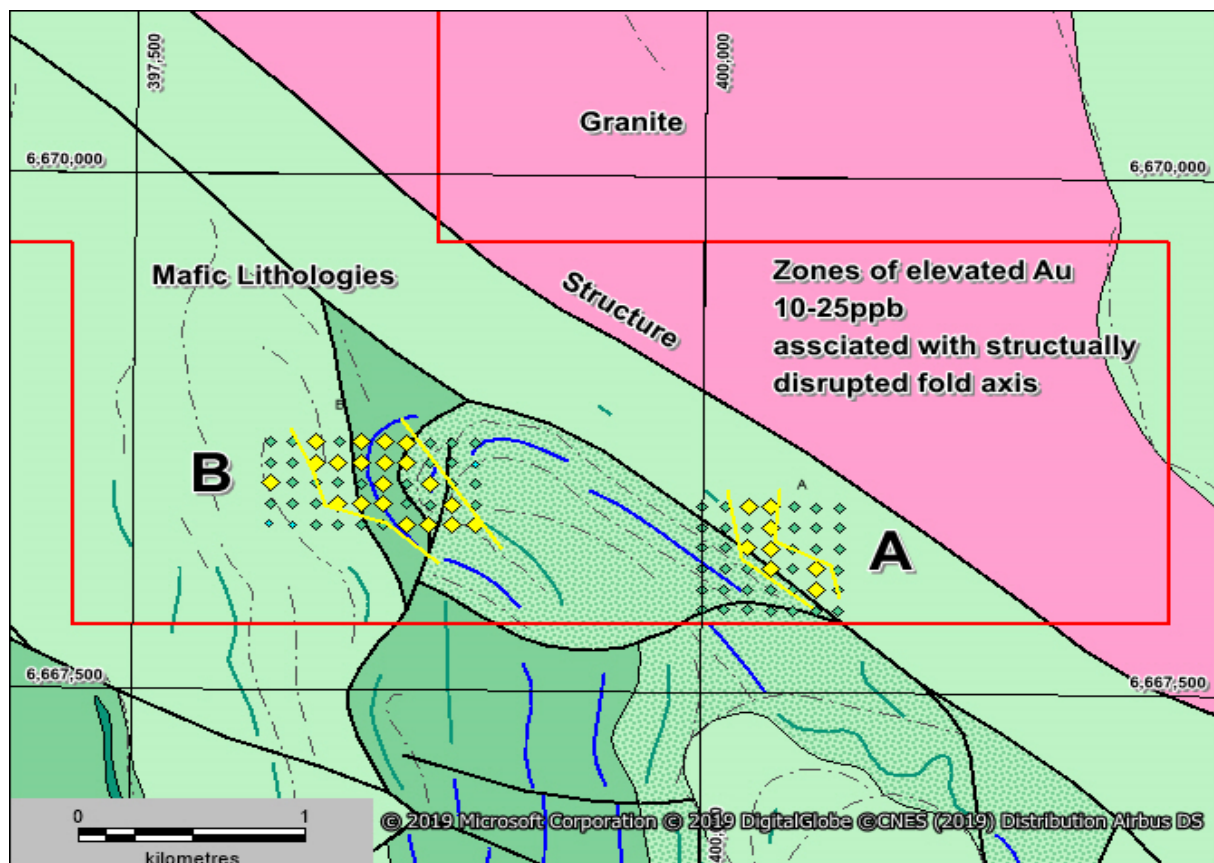


**Figure 7: Canegrass Project – RTP 1VD Aeromagnetics and Vacuum Drill Grids**

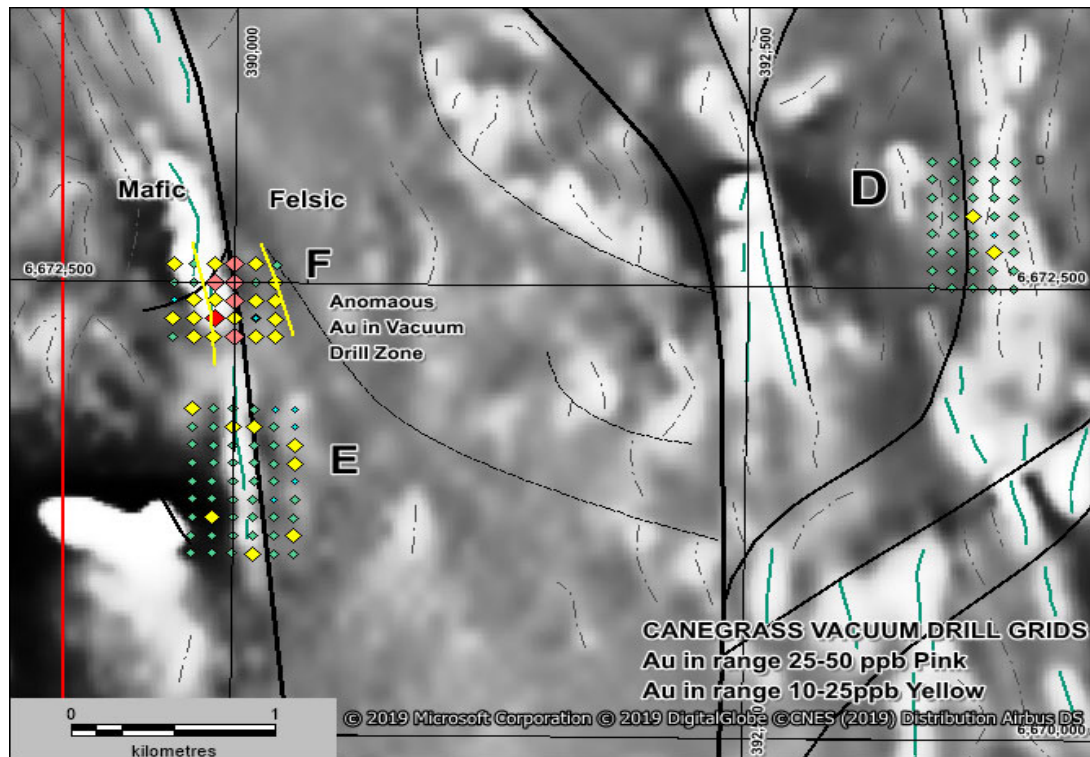




**Figure 8:** Canegrass Project – Areas A and B showing the areas of elevated Au geochemistry



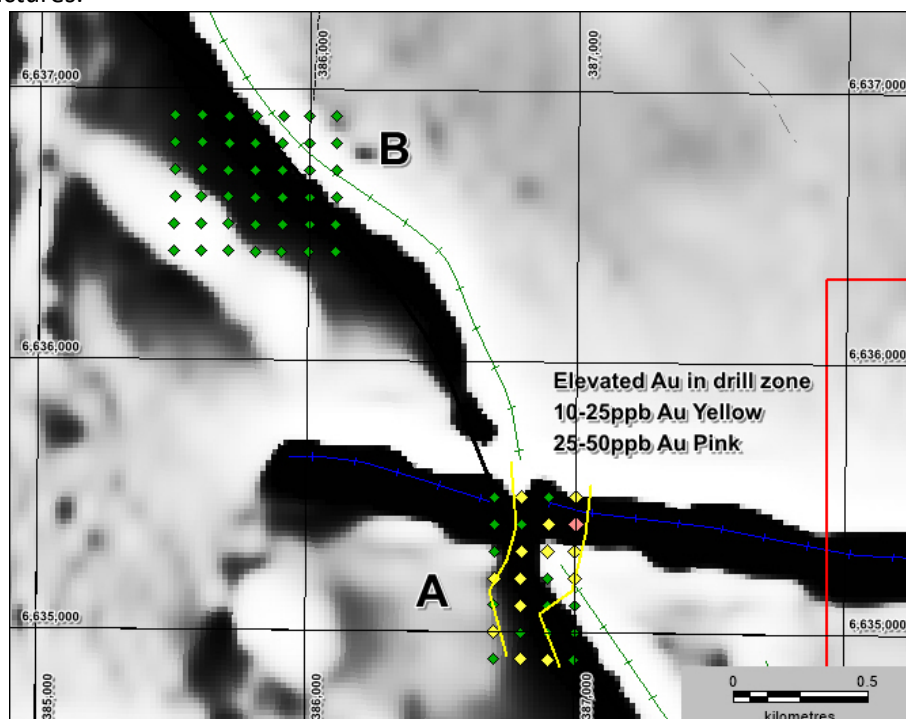
**Figure 9:** Canegrass Project – Areas A and B showing the areas of elevated Au geochemistry and interpreted geology



**Figure 10:** Canegrass Project – Areas E and F showing the areas of elevated Au geochemistry and magnetics

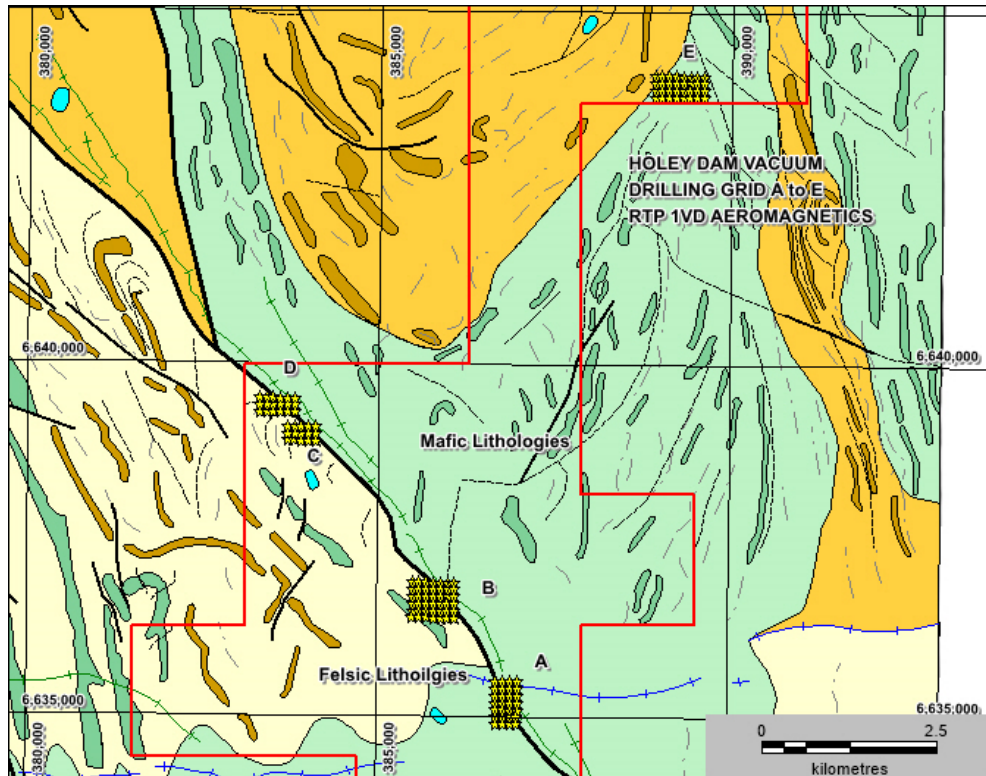
## Holey Dam EL 27/550

Vacuum drilling within EL27/550 comprised drill grids (**Figure 7**) located mainly adjacent to major NW-SE and E-W structures.

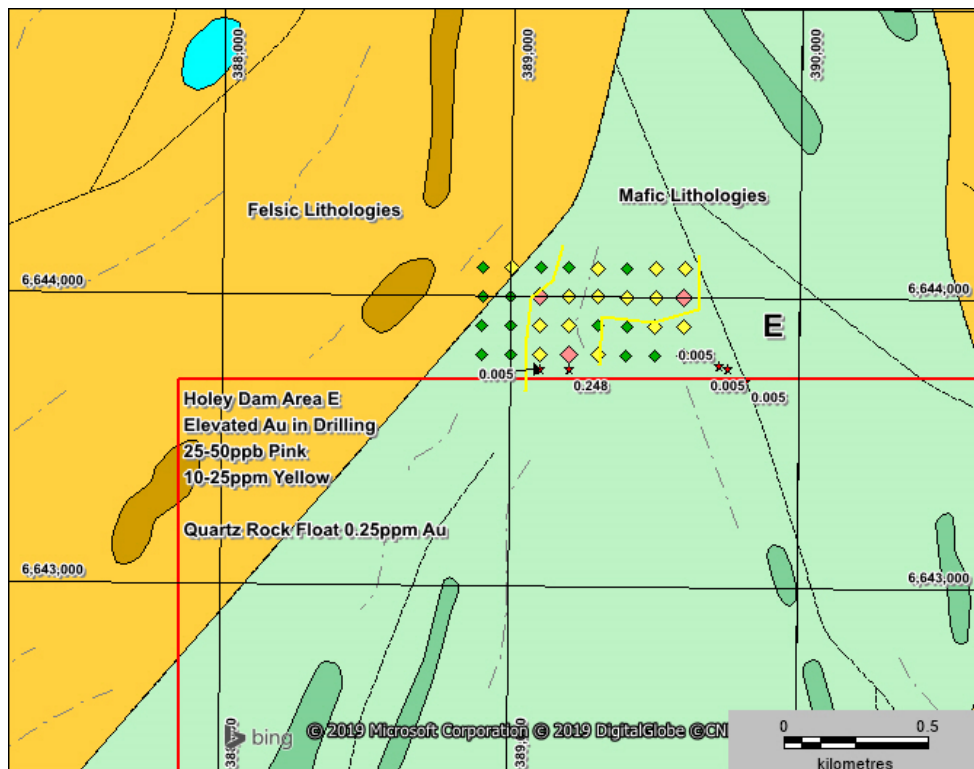


**Figure 11:** Holey Dam Project – Aeromagnetics and Vacuum Drill Grids





**Figure 12:** Holey Dam Project – Lithostructural Interpretation and Vacuum Drill Grids



**Figure 13:** Holey Dam Project – Vacuum Grid E showing area of elevated Au

Vacuum grid A was located at the intersection of major dolerite filled structure and as such a good place to explore for gold mineralisation. The elevated gold response is located at the intersection of the major

structures and will be a target for deeper drill testing.

The other area showing a significant gold signature is Area E located within dominantly mafic lithologies and was chosen due to elevated Au in quartz float result of 0.248 ppm Au and the proximity to a possible faulted felsic contact. Within the Holey Dam tenement areas, A and E warrant further drill testing. The next phase of testing will involve using the Company's portable XRF instrument to collect multi element readings of all 387 bottom of hole vacuum drill samples in addition to spectral mineralogical analyses of the six priority areas for mineralogy that may be associated with alteration associated with gold mineralisation.

### **Follow up drill testing**

#### ***Canegrass***

Shallow vacuum drilling has resulted in three (3) areas (A,B and F – **Figure 8**) being highlighted for follow up RAB Drilling. Areas A and B are located in a folded mafic sequence in the south of the tenement with historical gold workings located on the same fold structure to the south of the tenement. The fold has been disrupted by a NW-SE fault which could act as localising/concentrating feature for gold mineralisation within the nose of the fold. An elevated Au response was delineated in Area F associated with the regionally significant Emu Fault (**Figure 10**). Up to 3,000 m of angled RAB drilling is planned for Areas A,B and F.

#### ***Holy Dam***

Elevated Au in Vacuum Drilling has been delineated in Areas A and E (**Figures 11 and 13**). Area A is located at the intersection of two (2) regional structures, both intruded by Proterozoic dolerite dykes. The intersection of NNW-SSE structures with later E-W structures is a good location for Au mineralisation in the Yilgarn Craton. Area E is located at the nose of folded/faulted adjacent to felsic volcanics to the west. The competency contrast between the felsic and mafic lithologies and major folding and faulting are positive features for deposition of gold mineralisation. Up to 2,000 m of angled RAB drilling is planned for Areas A and E.

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

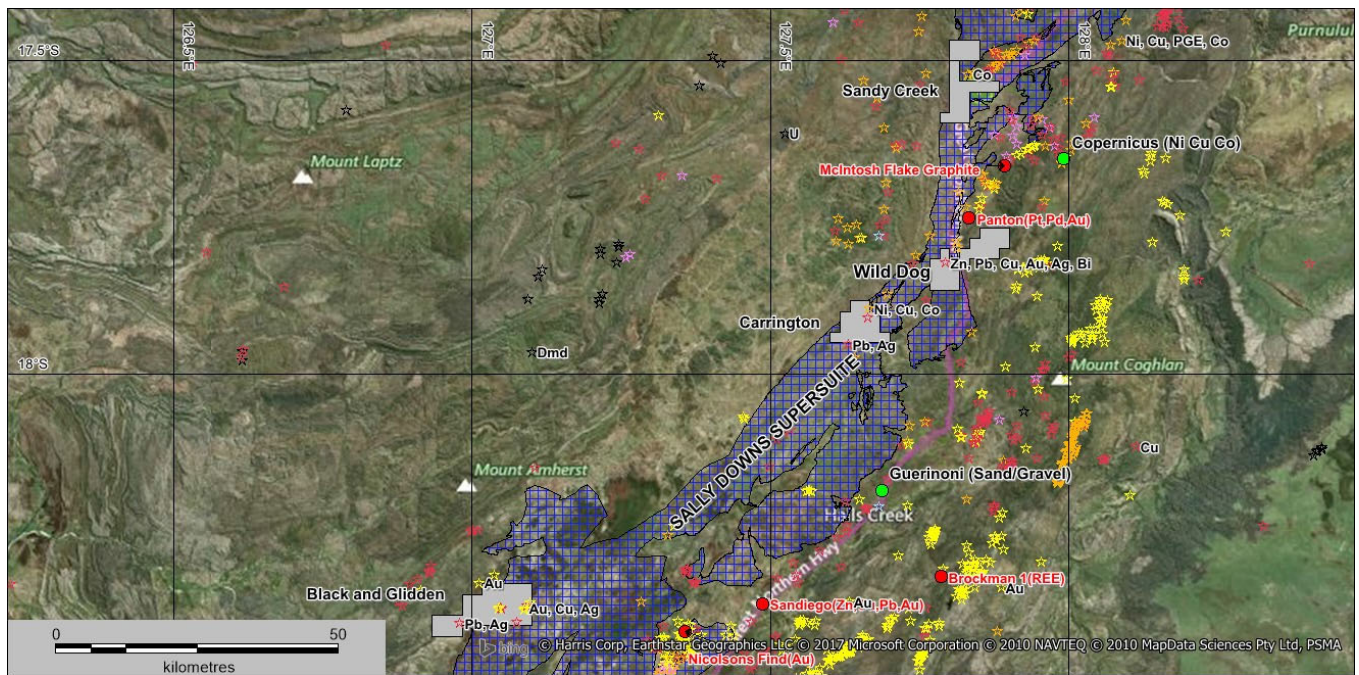
*E 08/5112, 5113,5114 and 5115 are held 100% by wholly owned subsidiary Kaili Iron Pty Ltd.*

*All tenements are granted.*

The Halls Creek Project comprises 4 granted tenements (**Figure 14**) 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 granulites 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.

Highly regarded WA based geophysical consultancy Southern Geoscience Consultants (“SCG”) have completed the acquisition and processing of all available airborne magnetic, radiometric, gravity and electromagnetic data covering the 4 tenements and have provided lithostructural interpretations and targeting maps and digital data. In addition, targets will be generated for field follow up. Sydney based company Earth-AI has used an Artificial Intelligence approach to merge all publicly available geochemical, geological and geophysical data to generate targets for fields follow up.

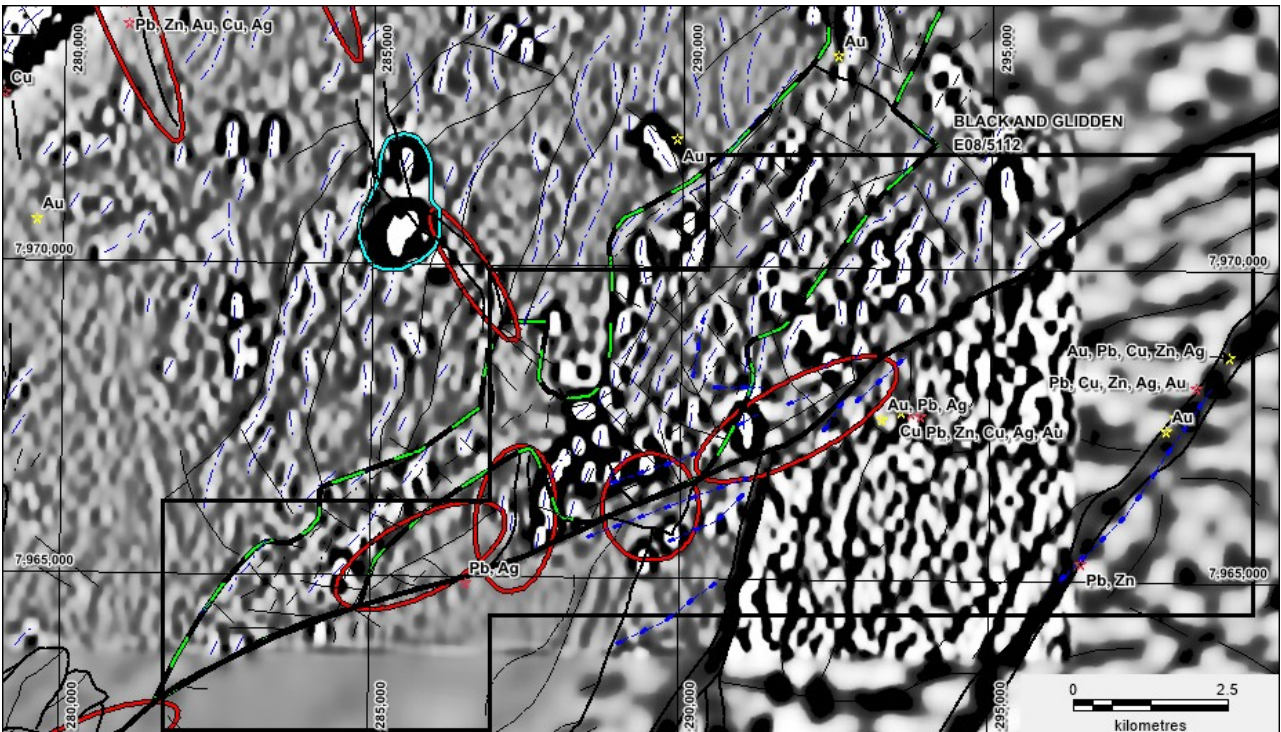
Field-based exploration is planned to commence in first half of 2020 after the wet season.



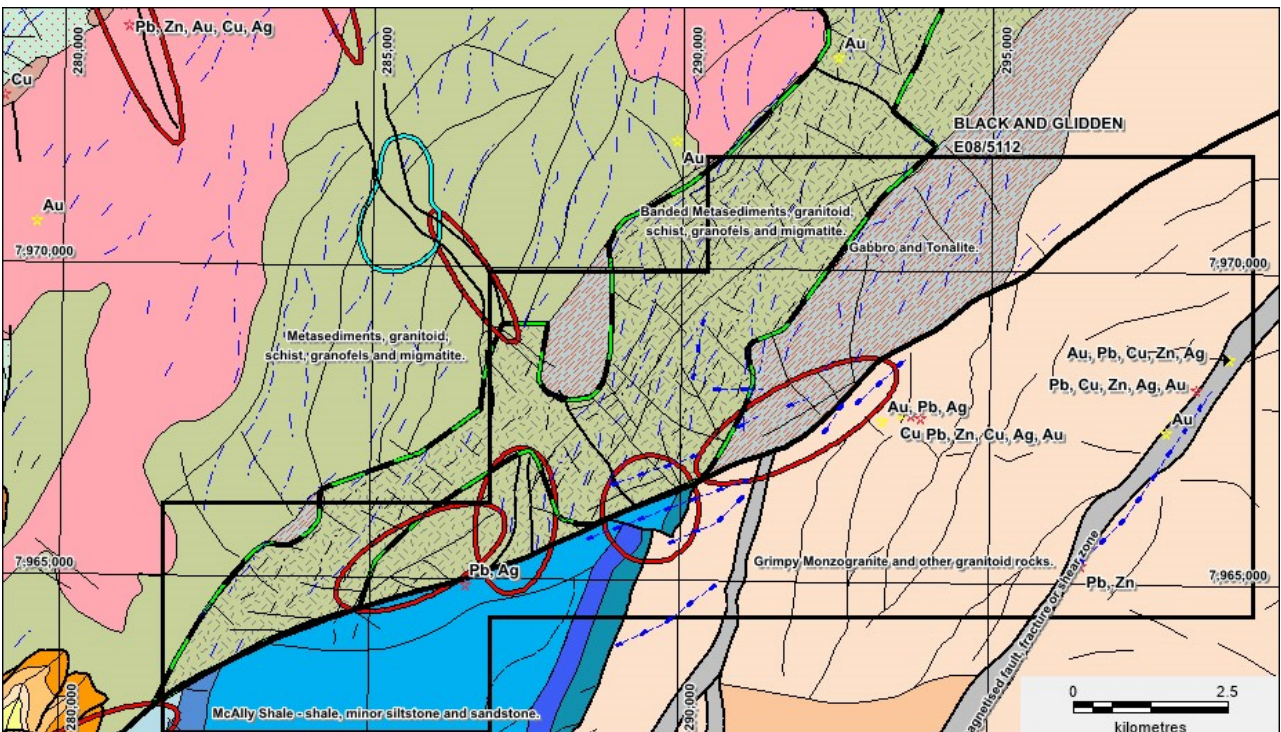
**Figure 14:** Halls Creek Project showing the 4 tenement located in the vicinity of Hall Creek



## Black and Glidden E08/5112



**Figure 15:** Black and Glidden tenement showing 2VD aeromagnetics, structures and targets

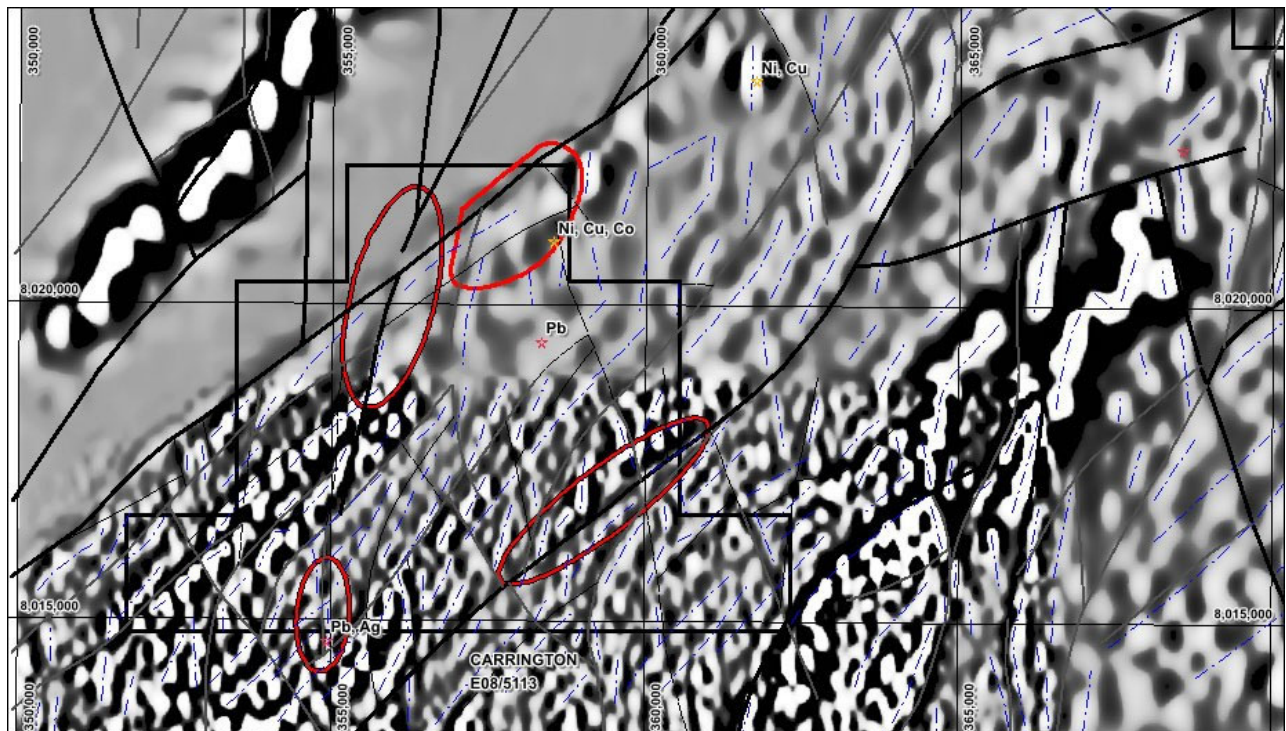


**Figure 16:** Black and Glidden tenement showing interpreted geology, structures and targets



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 15 and 16** with the main focus being structurally hosted Au mineralisation. There has been no historical drill testing of the Black and Glidden tenement.

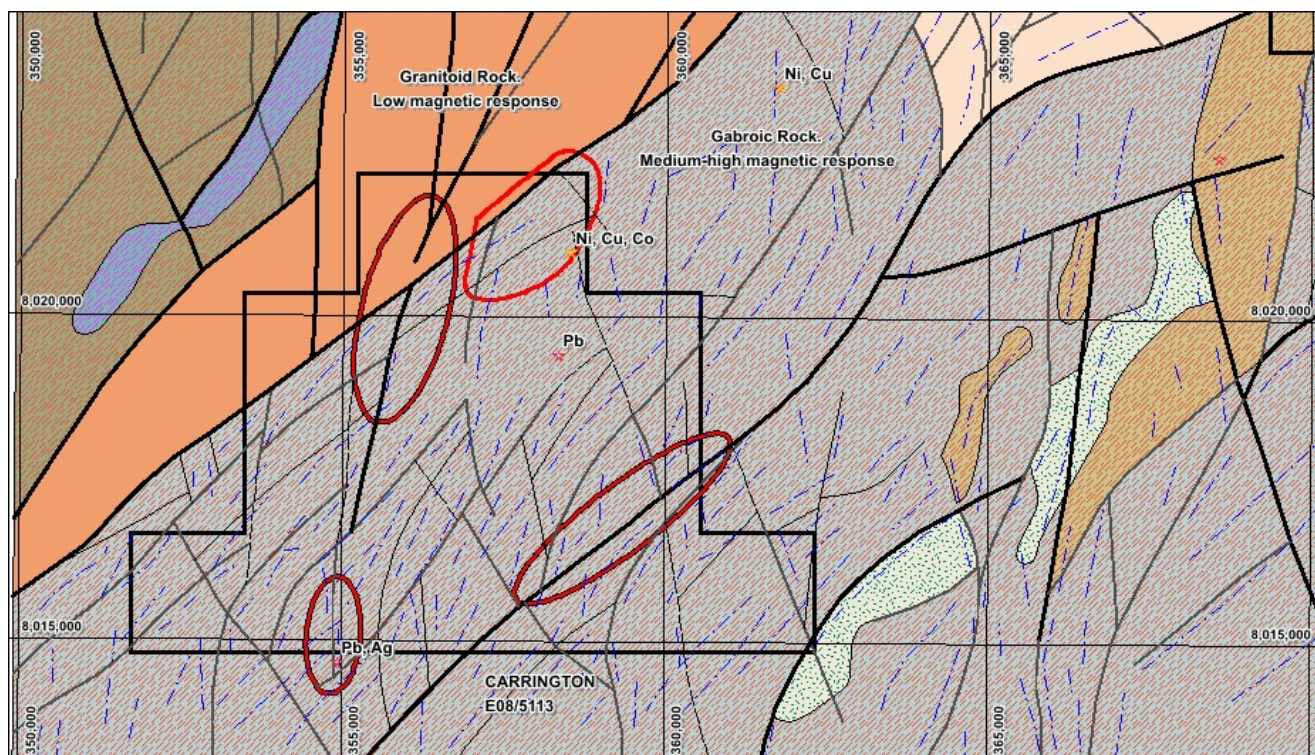
### Carrington E08/5113



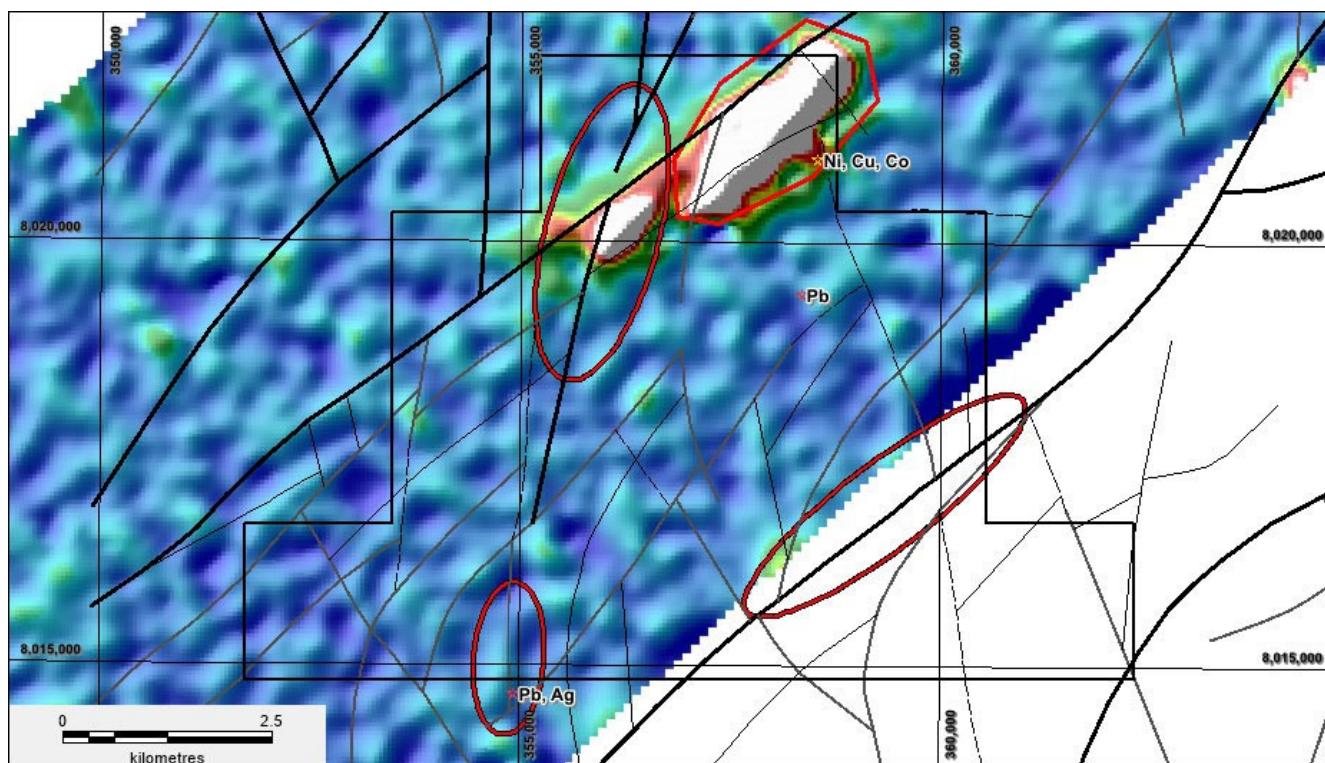
**Figure 17:** Black and Glidden tenement showing 2VD aeromagnetics, structures and targets

The Carrington tenement (**Figures 17 and 18**) comprises primarily the McIntosh gabbro/norite which is the main Co/Ni (Cobalt/Nickel) 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 19**.





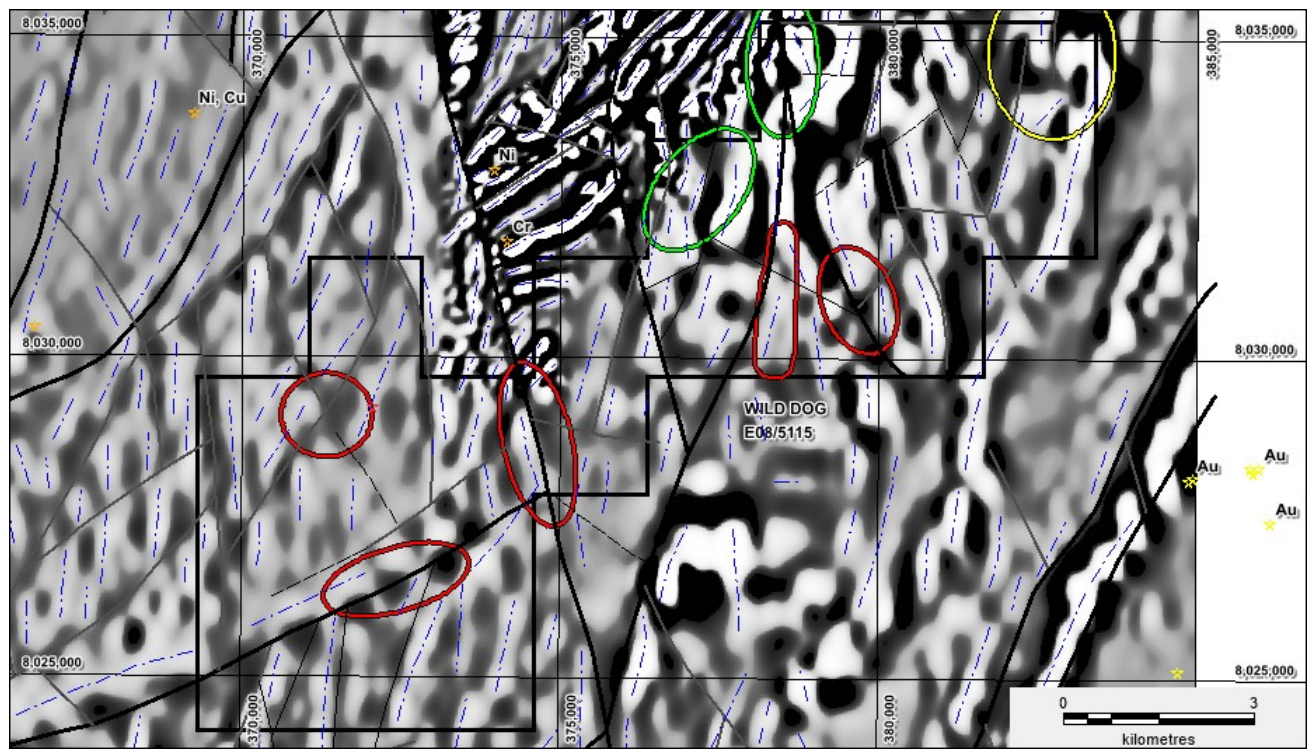
**Figure 18:** Black and Glidden tenement showing interpreted geology, structures and targets



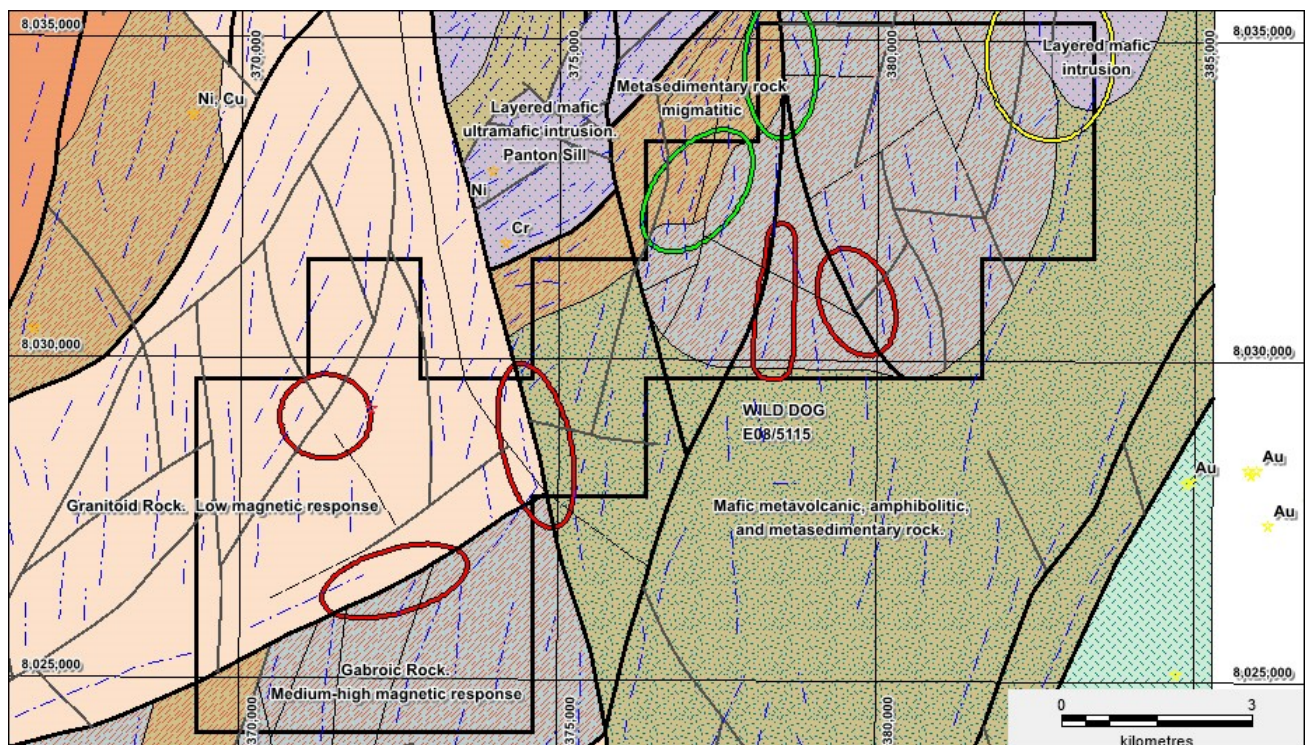
**Figure 19:** Carrington tenement showing airborne EM image and conductive feature in the north



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



**Figure 20:** Wild Dog tenement showing 2VD aeromagnetics and target areas

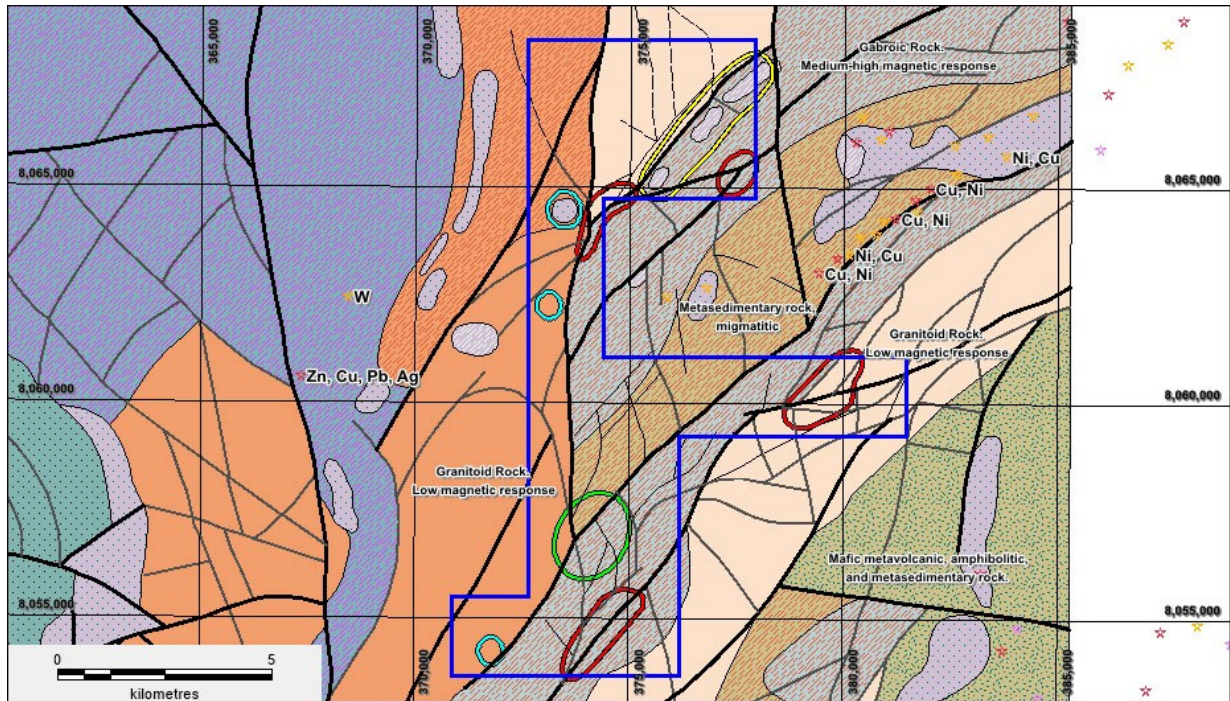


**Figure 21:** Wild Dog tenement showing interpreted solid geology, structures and target areas



The Wild Dog and Sandy Creek tenements (**Figures 20 to 22**) 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 and 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.

The Phase 1 exploration program to be carried out will comprise helicopter supported surficial geochemical sampling and geological mapping of the 4 Halls Creek tenements.



**Figure 22:** Sandy Creek tenement showing interpreted solid geology, structures and target areas

## Next Phase of Exploration

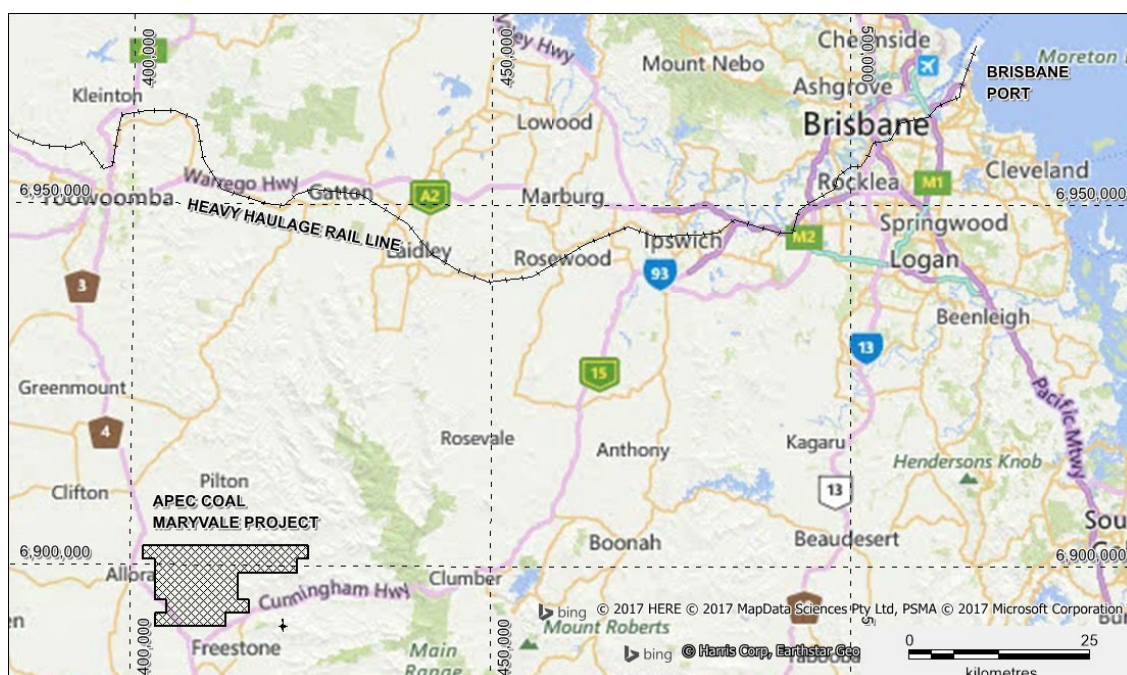
The Phase 1 exploration program for the Halls Creek Project will comprise a combination of helicopter, vehicle and foot traverse field surveys based out of Halls Creek. The exploration will focus initially on the targets identified in **Figure 15 to 22** and commence in Quarter 2 2020. A combination of rock, stream and soil samples will be collected and submitted to the ALS Geochemical Laboratory in Perth for Au and multi element analyses in conjunction with pXRF readings using the Companies Olympus Delta instrument.

## QUEENSLAND

### Clarence Moreton Basin (Maryvale) Coal Project

*EPC1506 is held 100% by wholly owned subsidiary APEC Coal Pty Ltd*

The Project is strategically located in the Clarence Moreton Basin, 222 km from the Port of Brisbane. The Project is adjacent to the New England Highway which connects the project area with Toowoomba for a distance of 77 km and from there the heavy haulage rail system can transport coal for export through the Port of Brisbane for 145 km (**Figure 23**).



**Figure 23: Maryvale Project Location Map**

**TABLE 2: INFERRED (ISG) RESOURCE ESTIMATE**

Resource Polygon	Working Section	Thickness (m)	Inherent Moisture (ad%)	Ash (ad%)	Volatiles (ad%)	Density (RD)	Tonnage (Mt)
Maryvale ISG Total	BU31-35	2.85	7.2	47.2	25.6	1.68	97

**TABLE 3: EXPLORATION TARGET OPEN-CUT AND ISG ESTIMATES**

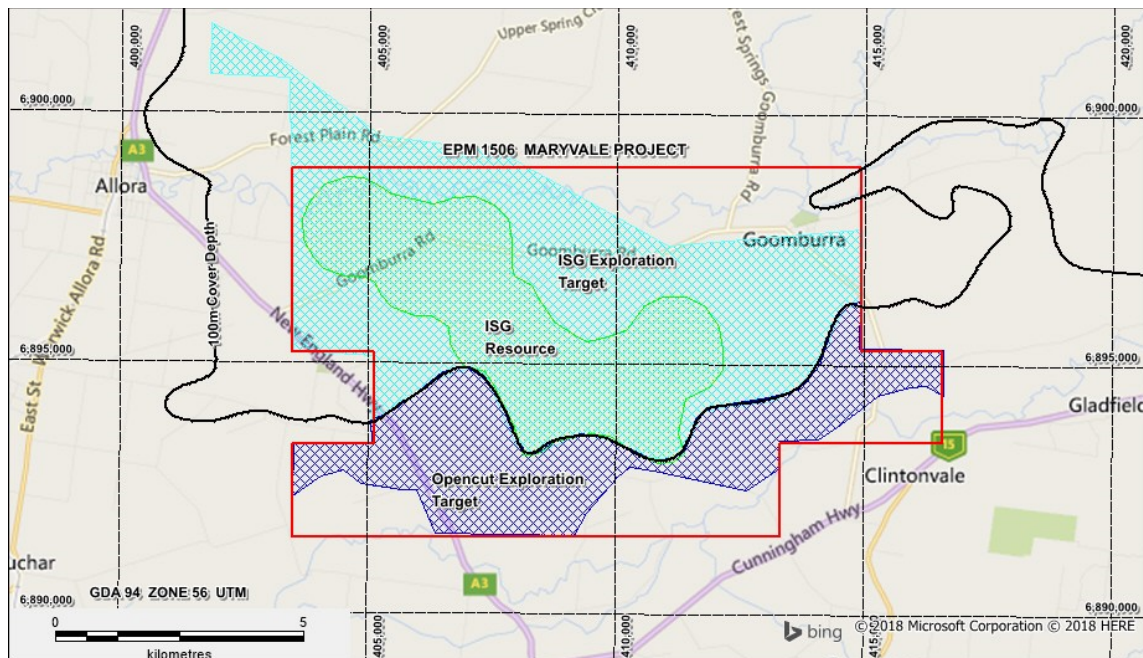
Resource Polygon	Working Section	Thickness (m)	Tonnage (Mt)
Open-Cut Total	BU31-BU35	3.3	80-105
ISG Total	BU31-BU35	2.5	90-125

*Nb. Packages lacked sufficient Points of Observations spacing to classify as Coal Resources and are expressed in ranges (lower-upper). Targets are conceptual in nature. The potential quantity and quality is conceptual in nature and there has been insufficient exploration to estimate a resource and it is uncertain if further exploration will result in the estimation of a mineral*

**Table 2 and 3: ISG Resource and Exploration Target Estimates – Maryvale Project**



The maiden JORC 2012 compliant resource is managed by 100% owned subsidiary APEC Coal Pty Ltd. The JORC Resource work was managed by Brisbane consultancy Geoconsult Pty Ltd (“Geoconsult”), primarily incorporating data acquired from the 2010 and 2016 drilling programs. Geoconsult staff has the relevant experience to be the competent person for the preparation of the Resource and Exploration Targets (**Figure 24**). **Table 2** and **3** summarise the Resource and Exploration Target Estimates.



**Figure 24:** Maryvale Project showing the ISG Resource and Exploration Targets

There was no field based exploration in the quarter and based on drill analyses and landholder constraints the Company has decided to relinquish the tenement.

The Maryvale ISG Resource is in addition to the Open Cut Exploration Target in light blue and the ISG Exploration target in dark blue. Only exploration targets with <100 m of overburden were considered in the open cut Exploration Target and areas with a minimum overburden of 100 m were considered in the ISG Exploration Target.

The seam and area of interest is the Bulwer Seam (Taroom Coal Measures) within the Maryvale EPC1506 Project Area. This announcement and the resource/exploration target is a summary of the 2016 coal resource estimation project work carried out by Geoconsult.

Exploration data for the Maryvale Project Area constituted of:

- data previously obtained from public domain records (Buck, 2010);
- drillhole data derived from various previous exploration programs (Buck, 2010);
- an exploration program of two partially cored drillholes and six open drillholes conducted by Clean Global Energy in 2010 (Buck, 2010); and
- an exploration program of one partially cored drillhole and five open drillholes conducted by Kaili in 2016 (this report).

The 2010 and 2016 drillholes were the central basis of the geological data used in the resource estimate. These holes specifically targeted the Taroom Coal Measures of the Walloon Sub-Group in a depth range of 100m to 350m and they intersected significant portions of the stratigraphic sequence. Drillholes WK16, WK16C, WK17, WK18 & WK19 are located within the Goomburra area of EPC1506.

The initial ASX announcement was made on the 6<sup>th</sup> February 2017 – “Maiden 97 Mt JORC Resource at the Maryvale Coal Project”

## LICENCES STATUS

Pursuant to ASX Listing Rule 5.4.3 the Company reports as follows in relation to minerals tenements (**Table 4**) held at the end of the December 2019 quarter and acquired or disposed of during that quarter and their locations. There was no change in beneficial interests under farm-in or farm-out agreements.

Granted	Tenement	Name	Commodity	Region	Registered Holder	Beneficial Interest	Area km <sup>2</sup>	Expiry
9/03/2017	E08/2770-I	Darnell Hill	Iron	WA - Pilbara Craton	Kaili Iron Pty Ltd	100%	67.2	8/03/2022
28/07/2016	E45/4619-I	Bea Bea Creek	Iron	WA - Pilbara Craton	Kaili Iron Pty Ltd	100%	105.6	27/07/2021
21/11/2016	E46/1084-I	Bustler's Bore	Iron	WA - Pilbara Craton	Kaili Iron Pty Ltd	100%	64.0	20/11/2021
8/07/2016	E40/354	8 Mile Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	70.4	7/07/2021
30/05/2016	E31/1114	Jungle Hill	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	150.4	29/05/2021
30/05/2016	E31/1113	Canegrass	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	108.8	29/05/2021
1/07/2016	E27/550	Holey Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	67.2	31/06/2021
1/07/2016	E27/549	Gindalbie Dam	Gold	WA - Yilgarn Craton	Kaili Gold Pty Ltd	100%	25.6	31/06/2021
13/05/2009	EPC 1506	Maryvale 1	Coal	QLD - Surat Basin	APEC Coal Pty Ltd	100%	86.4	13/05/2020
31/08/2018	E80/5112	Black and Glidden	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	102.4	31/08/2023
31/08/2018	E80/5113	Carrington	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	51.2	31/08/2023
31/08/2018	E80/5114	Sandy Creek	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	64	31/08/2023
31/08/2018	E80/5115	Wild Dog	Cobalt/Gold	WA - Lamboo Province	Kaili Iron Pty Ltd	100%	70.4	31/08/2023
							1,043.24	

**Table 4: 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.*

**Long Zhao**  
**Director/Secretary**  
**30<sup>th</sup> January 2020**