ANNUAL REPORT FOR EXPLORATION LICENCE 31234 LAKE MACKAY PROJECT

From 13 October 2018 to 12 October 2019

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Operator	Independence Group NL
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100,000 mapsheet	Leisler, Willie
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	Prodigy Gold NL- digital
	Central Land Council- digital
	Independence Group NL- digital

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1 Abstract

The Independence Group NL (IGO) tenement EL31234 is located approximately 500 km west-northwest of Alice Springs in the western Aileron Province of central Australia, adjacent to the border of Western Australian (WA). The tenement was granted on 13th October 2017.

EL31234 forms part of the Lake Mackay Project joint venture with Prodigy Gold NL (PRX). Ownership of the project is split 70 % to IGO and 30 % to PRX, with each party contributing their share of the project expenditure.

All on ground exploration since the tenement was granted has been conducted by IGO, the operator of the joint venture.

Exploration during the reporting period consisted of sacred site clearance surveys, collection of surface geochemistry (405 soil and one 1 rock sample), collection of airborne electromagnetic (AEM) data (1306.7-line kms) and collection of 213 stations of follow-up ground based moving loop electromagnetic surveys (MLEM). Four reverse circulation drill holes were completed totaling 742 m.

2 Location, Title History, Physiography and Access

Tenement EL31234 is located 500 km west-northwest of Alice Springs on Aboriginal Freehold Land and adjoins the WA border (Figure 1). The tenement was granted on 13 October 2017. At the end of the second year the tenement area underwent a mandatory 50 % reduction.

The tenement is part of the Lake Mackay joint venture. IGO control 70% and are the operator of the tenements, with PRX controlling 30 % and funding their share of the project expenditure.

Most of the project area is dominated by sandy spinifex plains. An extensive east-west oriented dune field covers 70 % of the project area. Stands of scrubby mulga occur in areas with shallow sand cover.

The tenement can be accessed from Alice Springs north via the Stuart Highway, then west on the Tanami Road, before heading west at Gary Junction (Kintore) Road, passing Kintore, before using temporary cross-country tracks to access the tenement.

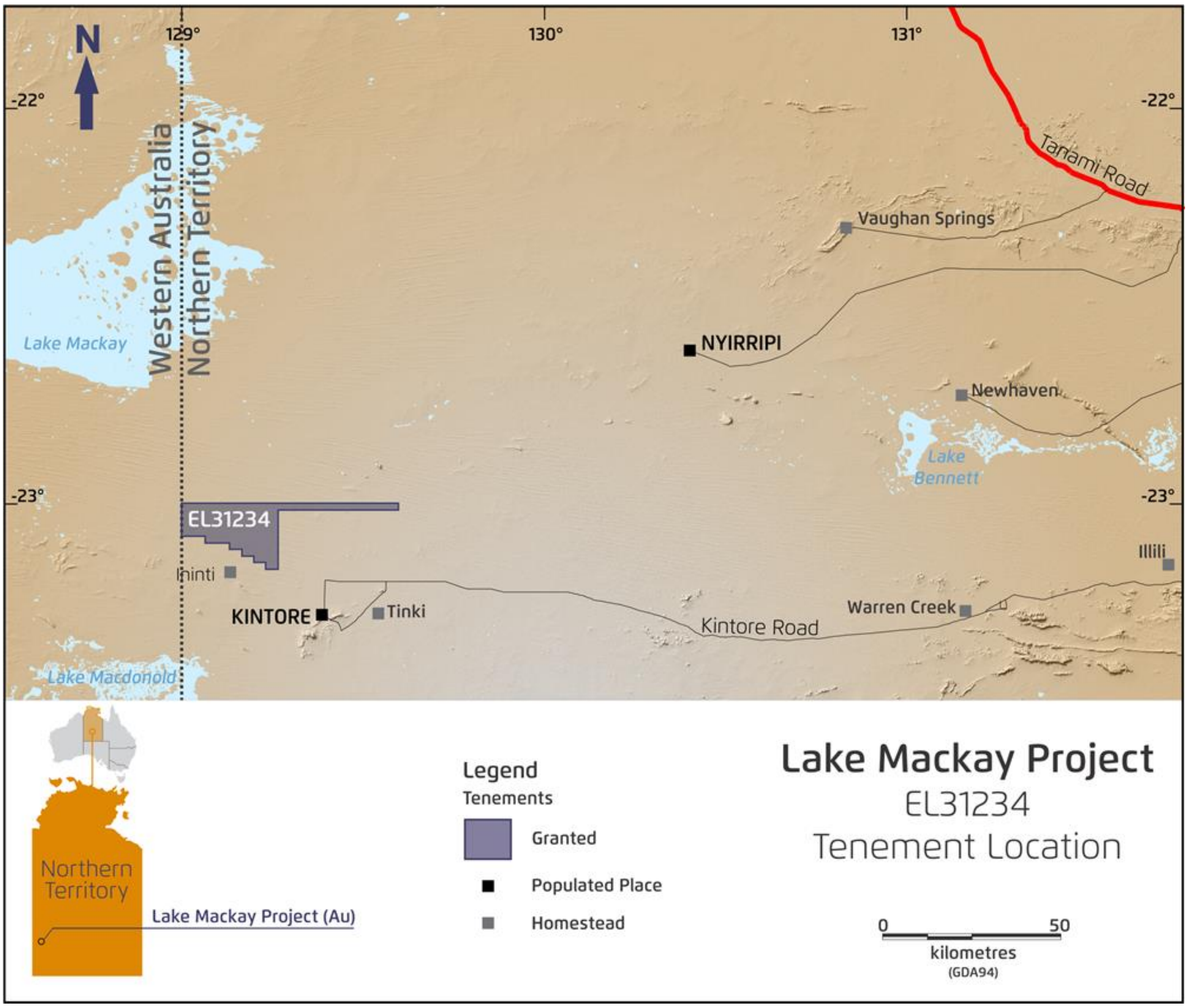

Figure 1: EL31234 location map

3 Geological setting, exploration history and exploration rationale

3.1 Regional and local geology and mineralisation

The Lake Mackay Project is located at the southern margin of the Paleoproterozoic North Australian Craton, straddling the Warumpi Province to the south, and the Aileron Province to the north. These provinces are separated by the Central Australian Suture (CAS), a major deep crustal-scale structure comprising a series of east–west trending major faults and shear zones (Shaw et al 1992, Scrimgeour et al 2005a, Selway et al 2009, Joly et al 2013).

Outcropping geology across the project area is typically poorly exposed. The terrain comprises low hills of poorly exposed Paleoproterozoic metasedimentary rocks and intrusions, commonly covered by aeolian sand plains and dunes (Close et al 2005a). In some locations, Paleoproterozoic rocks are overlain by Neoproterozoic and Paleozoic sedimentary rocks of the Amadeus and Ngalia basins.

Polymetallic base metal and gold mineralisation (Cu-Au-Ag-Zn-Pb-Co) at Grapple and Bumblebee (Winzar 2016, Reno et al 2018, McGloin et al 2019), and more recently at the Phreaker and Scuba prospects (Prodigy

Gold, ASX Release, 17 July 2019), are located in the western Aileron Province. The ore-forming processes for these prospects remain poorly understood (Reno et al 2018, McGloin et al 2019). Nonetheless the observation of weakly magnetic pyrrhotite directly associated with base metal sulfides and precious metals (Cu-Au-Ag-Co-Zn-Pb), and anomalous enrichment in several elements (As, Bi, Te, Sn, Cd, Se, Sb) provides empirical geophysical and geochemical pathfinders that can be used to explore for similar mineralisation regionally.

The host rocks to the sulfide and gold mineralisation are ca 1.84–1.81 Ga metamudstone and metasandstone of the Lander Rock Formation, interpreted as a turbidite sequence (Close et al 2004, Close et al 2005a, Hollis et al 2013, McGloin et al 2019, Kositcin et al 2019). These siliciclastic metasedimentary rocks are strongly deformed and variably metamorphosed and interpreted to be lateral equivalents of similar metasedimentary rocks in the Tanami, Warramunga and Davenport Provinces (e.g. Claoue-Long et al. 2008); a regional lithostratigraphy is not however established because of a lack of continuous outcrop, few marker horizons, and the high metamorphic grade and deformation of these rocks in many locations.

Between ca 1.81–1.70 Ga, this metasedimentary succession was intruded and metamorphosed by several phases of magmatism (Scrimgeour 2013, Hollis et al 2013, Kositcin et al 2019). Such intrusions include phases of the loosely defined ca 1.81–1.77 Ga felsic Carrington Suite and the ca 1.80 Ga Du Faur mafic Suite (Close et al 2005b, Edgoose et al 2008, Kirkland et al 2009, Scrimgeour 2013, Hollis et al 2013). The Du Faur Suite encompasses metadolerite and metapyroxenite sills (typically recrystallized to hornblende amphibolite; Close et al 2005). The Du Faur Suite are low-K tholeiites; this chemistry is interpreted as evidence for their emplacement in an extensional tectonic setting (Close et al 2005, Scrimgeour 2013). The precise timing of emplacement remains unknown due to difficulties sampling mafic rocks for geochronology purposes (NTGS in prep); nonetheless these sills preserve the same folded regional fabric as the enclosing metasedimentary succession, dated at ca 1.67 Ga at the Grapple prospect (Reno et al. 2018), providing a minimum crystallization age.

The Warumpi Province records a ca 1.69–1.60 Ga history of voluminous, dominantly granitic felsic magmatism, crustal thickening, and high-thermal-gradient metamorphism along the southern margin of the Aileron Province (Scrimgeour et al 2005a,b). Felsic and lesser mafic rocks of the Argilke Igneous Event were emplaced between ca 1.69–1.66 Ga (Close et al 2005a, Scrimgeour et al 2005a, Kirkland et al 2009, Hollis et al 2013). Interpreted metasedimentary rocks with minimum ages of ca 1.66–1.64 Ga and 1.64–1.60 Ga (e.g. Yaya Metamorphic Complex) occur adjacent to these older igneous rocks (Scrimgeour 2005a-b, Close et al 2003, Scrimgeour et al 2005b, Hollis et al 2013).

Further felsic and mafic magmatism occurred in the Warumpi Province, and locally in the Aileron Province on Mount Rennie and Mount Doreen map sheets (e.g. Andrew Young Igneous Complex, Walungurru Volcanics, Waluwiya Suite) at ca 1.64–1.63 Ga contemporaneous with high-thermal gradient metamorphism (Wyborn et al 1998, Cross et al 2005b, Scrimgeour et al 2005a, Hollis et al 2013, Kositcin et al 2019). The Andrew Young Igneous Complex in particular, is dominated by ultramafic and mafic intrusions, but also contains subordinate biotite-granite and pegmatites (Close et al 2005, Scrimgeour 2013). The mafic and intermediate intrusions include coarse augite-bearing norite, porphyritic micro-crystalline norite, olivine and K-feldspar-bearing norite, biotite-bearing olivine gabbronorite, quartz-bearing microdiorite, anorthosite, and plagioclase-andradite-clinopyroxene rock.

Along with polymetallic base metal and gold mineralisation elsewhere in the project area, ultramafic intrusions of the Andrew Young Igneous Complex represent a potential economic target for orthomagmatic and lateritic nickel and cobalt mineralisation (Gregory et al 2004, Hoatson et al 2005, Prodigy Gold ASX Releases 26 July 2018, 30 May and 17 July 2019); IGO have confirmed an anomalous shallow zone of nickel and cobalt mineralisation in duricrust at the Grimlock prospect through reverse circulation drilling. Outcrops of weathered ultramafic are widespread in the project area (E.g. Swoop prospect) providing a viable additional exploration target.

The origin of the Warumpi Province remains a focus of study; one model based on U–Pb zircon chronology interprets the province as an exotic terrain that collided obliquely with the Aileron Province at ca 1.64 Ga (Close et al 2005b, Scrimgeour et al 2005b). An alternative model based on isotopic and chronological evidence for mantle-derived magmas and crustal inheritance proposes that the Warumpi Province represents rifting of the Aileron Province during this period (Hollis et al 2013, Wong et al 2015). Morrissey et al (2011) and Wong et al (2015) propose that the Warumpi Province was the upper plate to the Aileron Province during the Paleoproterozoic, and that the province was emplaced along the CAS at ca 1.1 Ga during the Grenvillian orogeny (e.g. Hollis et al 2013, Wong et al 2015). The timing of development for the CAS remains uncertain (Scrimgeour et al 2005) however it must have formed during or after the Liebig Orogeny (ca 1.64–1.63 Ma) and may have been re-activated several times.

3.2 Historical exploration and exploration rationale

The exploration rationale for the Lake Mackay Project is now largely based on empirical observations from systematic fieldwork and the recent discovery of base metal and gold mineralisation in the area. However, before the discovery of base metal sulfide and gold mineralisation at the Bumblebee prospect in 2015, the Lake Mackay Project area was largely untested for mineral potential using modern exploration methods.

Previous theoretical studies considered the general Lake Mackay area prospective for nickel mineralisation (Hoatson et al 2005), orogenic and intrusion-related gold, sediment-hosted base metal deposits and uranium mineralisation (Joly et al. 2013), and copper-gold mineralisation including IOCG deposits (Skirrow et al. 2019).

IGO initially targeted the project for orogenic gold. The area was considered to have the key constituents identified by Joly et al (2013) in Western Australia. These included ca 1.80-1.70 Ga and 1.64 Ga intrusions that show evidence for local gold enrichment (potential sources), major deep crustal structures (fluid conduits) and potential physico-chemical boundaries (depositional traps). The trends of west-northwest gold anomalism from regional sampling in Western Australia, occurs parallel to D1 structures and the CAS, and continue into IGO Lake Mackay tenements in the Northern Territory.

Limited historical exploration in the 2000s by BHP Billiton on the nearby EL 24915 targeted orthomagmatic and lateritic nickel mineralisation associated with ultramafic and mafic rocks of the Andrew Young Igneous Complex (Gregory et al 2004). In 2003, two reverse circulation drill holes testing electromagnetic anomalies intercepted minor sulfide mineralisation (one of these drill holes was located 3.6 km west of IGO's subsequent Bumblebee discovery). The drilling was never followed-up despite intercepting minor pyrite, pyrrhotite and trace chalcopyrite in tourmaline-bearing quartz veins within a shear zone that cut metasedimentary rocks and hydrothermally altered mafic intrusions.

Between 2002 and 2012, a joint-venture between Teck Australia Pty and Kajeena Mining Company carried out preliminary exploration work, including on historical tenement EL 10383, that now comprises part of EL 29748, about 300 metres north of the Grapple and Bumblebee prospects (Kalma and Cawood 2009, Lee 2012); this work included field visits to collect sporadic rock chip, portable XRF, spinifex and soil samples where weakly anomalous gold, copper and zinc results were obtained. The Leg Gully anomaly, an east-west trending ironstone within mica schist, returned XRF readings of ≤1404 ppm Cu and rock chip assays of 323 ppm Cu. These results were never followed up.

With hindsight, these reports from BHP, Kajeena Mining Company and Teck match the setting and observed mineralisation now discovered at Bumblebee and Grapple. The Bumblebee prospect was discovered by IGO in 2015 after drilling of soil geochemical anomalies (Winzar 2016). The soil sampling program was designed to test for both gold and base metal anomalism using the BLEG method of analysis (1 kg Raw BLEG, -2µm ultrafine soil and lag sampling) with infill 10 g 25-50µm BLEG sampling).

Furthermore, soil sampling, ground electromagnetic surveys and geological mapping between 2016 and 2019 identified the nearby Grapple prospect, and several new polymetallic sulfide and gold targets. Additionally, rock chip sampling and drilling of ultramafic duricrust from the Andrew Young Igneous Complex at the Grimlock prospect has yielded anomalous Co and Ni concentrations (Prodigy Gold ASX Releases 26 July 2018, 30 May and 17 July 2019). The drilling confirmed the lateritic Ni-Co mineralisation may have economic potential and is pending metallurgical work.

The exploration concept for the Lake Mackay project is to target geochemical anomalies and/or electromagnetic conductors that likely relate to large:

1. "Bumblebee-Grapple style" pyrrhotite and associated base and precious metal mineralisation hosted in the Lander Rock Formation; and
2. Orthomagmatic or lateritic Ni-Co-Cu mineralisation hosted within ultramafic intrusions of the Andrew Young Igneous Complex.

Both mineralisation styles are of interest to IGO because deposits of this nature should be readily detectable using both modern airborne and follow-up ground electromagnetic surveys, and geochemical methods, even under shallow cover, and thus could provide economically viable deposits despite the remote location.

Additionally, given that much of the project is hosted in the Lander Rock Formation, and considering reported regional mineralisation styles, there is further scope to identify:

3. "Mount Hardy-Silver King style" sulfide mineralisation in breccia, stringers and quartz veins associated with Cu, Ag, Zn and Pb related to ca 1.82–1.77 Ga felsic intrusions emplaced within the Lander Rock Formation.
4. Minor to moderate sulfides (pyrrhotite, pyrite, arsenopyrite) associated with non-conductive "Tanami style" orogenic gold mineralisation hosted in the Lander Rock Formation or equivalent or correlative stratigraphy.

The Bumblebee and Grapple prospects produced strong geochemical anomalies using soil sampling, and strong electromagnetic conductors using airborne and ground surveys, providing empirical methods to target further mineralisation. Consequently, IGO have applied both soil geochemistry and airborne (AEM) and ground (MLEM) geophysical surveys as a way to delineate additional mineralisation across the project (Winzar 2016, Whitford 2019). These methods successfully generated multiple drilling targets in the 2019 field season, and led to the discovery of the Phreaker, Arcee, Scuba and Caps prospects. The successful discovery of these mineralised bodies confirms the mineral potential, and the applicability of these exploration method, across the project area.

4 Exploration Index Map

The Exploration Index Map is included as Appendix 1

5 Geological activities and office studies

Nothing to report

6 Remote sensing

Nothing to report.

7 Geophysical activities

An aeromagnetic and radiometric survey was flown over the entire tenement prior to granting as part of a co-funded project wide survey at 200 m spaced flight lines (north-south). The mean terrain clearance was 35 m.

In the first year, 121.2-line Km of SPECTREM airborne electromagnetic (AEM) surveying was completed over the eastern part of the tenement as part of a collaborative survey that was co-funded by the Northern Territory Geological Survey. During the current reporting period, 1306.7 line kms of airborne surveying was completed over the remaining parts of the tenement. This was flown on a 300 m line spacing with north-south lines and 90 m mean terrain clearance. The aerial survey highlighted four on tenement anomalies, which required follow-up ground electromagnetic surveying. A total of 213 moving-loop stations were completed to traverse these anomalous targets using 200 m × 200 m loops in a slingram configuration (200 m offset). The lines were 200 m spaced with 100 m station spacing. Survey parameters are shown in Table 1 below. The geophysical data is provided in Appendix 2.

Table 1: MLEM configuration and specifications

Configuration	Slingram
Loop size	200 m
Line spacing	200 m
Station spacing	100 m
Receiver system	Smartem 24 EMIT Fluxgate – Bz (up), Bx (along), By (across)
Sensor location	200 m in front of loop centre (increasing station numbers unless otherwise specified)
Transmitter	Transmitter Technologies TTX
Effective current	~70-100 A
Frequency	1 Hz (Or as described in data file)

The moving loop surveys produced one conductive target which was deemed worthy of reverse circulation drilling. Once the hole was drilled, a down hole electromagnetic (DHEM) survey was completed to resolve the electromagnetic target and test for any follow-up targets along strike. The downhole survey used a 400 m square loop with readings taken down the hole in 10 m intervals.

Table 2: DHEM configuration and specifications.

Configuration	DHEM
Loop size	400 m (or as described in data file)
Station spacing	Average ~10 m
Receiver system	EMIT DigiAtlantis DHEM system 3 component (A, U, V)
Transmitter receiver system	IGO in house
Effective current	~50-60 A
	0.25-1Hz (as described in data file)
Frequency	0.25-1Hz (as described in data file) ~50-60A
Effective current	0.25-1Hz (as described in data file)

8 Surface Geochemistry

8.1 Soil Sampling

Areas identified from radiometric surveys that showed a bedrock response were selected for reconnaissance soil sampling. A sample spacing of 400 m (north-south) x 800 m (east-west) was selected. Prior to undertaking the soil sampling, a sacred site clearance survey was conducted by the Central Land Council (CLC).

Sampling was conducted by teams of two people, using All Terrain Vehicles (ATV), from mobile camps that were established at several locations throughout the project area along temporary access tracks.

The samples were collected from a depth of 0 to 20 cm after scraping the surface to remove any organic matter. Samples were screened on site to -0.4 mm to obtain approximately 2 kg of fine material. The samples were then submitted to Intertek laboratory in Alice Springs for additional screening to -50 µm. Samples were then dispatched to the Perth laboratory for analysis.

The BLEG technique was used for Au and Ag analysis, initially with a 10 g aliquot of -50 µm material. This later became a 20g aliquot due to a perceived gold nugget affect. A 0.5 g aqua regia digest was used to analyse for Al, As, B, Ba, Be, Bi, Ca, Cd, Ce, Co, Cr, Cs, Cu, Fe, Ga, Ge, Hf, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Nb, Ni, P, Pb, Pd, Pt, Rb, Re, S, Sb, Sc, Se, Sn, Sr, Ta, Te, Th, Ti, Tl, U, V, W, Y, Zn and Zr.

The initial sampling identified several anomalous results which were subsequently infilled at a 200 m (north-south) x 400 m (east-west) sample density. On identifying coherent anomalism at the Arcee prospect, infill was tightened to 200 m x 50 m on a southwest-northeast strike to test the entirety of the gold anomalism. Peak multi-element results are displayed in Table 3. All assay data are included in the digital appendices.

Element	Sample Number	MGA East (m)	MGA North (m)	Value	Peak	Mean	Median	Standard Deviation
Ag	LM06956	502900	7450601	ppm	4.2	2.2	2.1	0.5
As	LM07160	501277	7447596	ppm	52.2	2.4	1.4	4.7
Au	LM07185	500785	7447945	ppb	4.2	0.5	0.5	0.3
Bi	LM06839	503354	7449400	ppm	37.6	14.7	14.1	5.3
Co	LM07051	505200	7454605	ppm	387.6	37.7	27.0	29.3
Cu	LM06955	502852	7450602	ppm	1560.1	639.1	634.4	254.5
Mn	LM07051	505200	7454605	ppm	151.1	15.4	14.3	8.6
Ni	LM06935	503049	7450400	ppm	56.5	13.6	13.5	4.5
Pb	LM07132	501387	7448541	ppm	59.9	24.4	23.6	6.4
Zn	LM07135	501271	7448434	ppm	4.2	2.2	2.1	0.5

Table 3: Peak -50 µm soil sampling results (GDA 94 Zone 52)

8.2 Rock chip sampling

One rock sample was collected during the soil sampling program and was assayed using a 4-acid digest. The rock showed low level gold anomalism, consistent with the gold mineralisation discovered in drill holes at the Arcee prospect (see section 9).

Table 4: Table of assay suites used for rock chip sampling.

Sample Type	Digest (Lab Code)	Finish (Lab Code)	Element (Detection Limit)
Rock Chip	Four Acid (4A)	Inductively coupled plasma optical emission spectrometry (OE33)	Ag (0.5 ppm), Al (50 ppm), As (10 ppm), Ba (2 ppm), Bi (5 ppm), Ca (50 ppm), Cd (0.5 ppm), Ce (20 ppm), Co (1 ppm), Cr (5 ppm), Cu (1 ppm), Fe (100 ppm), K (20 ppm), La (20 ppm), Li (1 ppm), Mg (20 ppm), Mn (1 ppm), Mo (2 ppm), Na (20 ppm), Ni (1 ppm), P (50 ppm), Pb (5 ppm), S (50 ppm), Sb (5 ppm), Sc (1 ppm), Sn (5 ppm), Sr (1 ppm), Te (5 ppm), Ti (5 ppm), Tl (5 ppm), V (1 ppm), W (5 ppm), Zn (1 ppm)
	25 g Lead Collection Fire Assay (FA25)	Inductively coupled plasma optical emission spectrometry (OE04)	Au (1 ppb)

Table 5: Assay results for single rock chip from EL31234

Element	Sample Number	MGA East (m)	MGA North (m)	Value	Peak	Mean	Median	Standard Deviation
Ag	LM10470	500653	7448086	ppm	0.6	0.6	0.6	NA
As	LM10470	500653	7448086	ppm	No Detectable			
Au	LM10470	500653	7448086	ppb	92	92	92	NA
Bi	LM10470	500653	7448086	ppm	No Detectable			
Co	LM10470	500653	7448086	ppm	16	16	16	NA
Cu	LM10470	500653	7448086	ppm	7	7	7	NA
Mn	LM10470	500653	7448086	ppm	1988	1988	1988	NA
Ni	LM10470	500653	7448086	ppm	4	4	4	NA
Pb	LM10470	500653	7448086	ppm	9	9	9	NA
Zn	LM10470	500653	7448086	ppm	125	125	125	NA

9 Drilling

As part of a reverse circulation (RC) drilling program designed to screen the entire project for base and precious metal mineralisation, 4 drill holes were drilled for a total of 742 m on EL31234 in late August to early September 2019. These were designed to test the best MLEM plate models, and/or areas with coherent surface geochemical anomalism. One of these drill holes tested the ‘Faster’ electromagnetic target, and the remaining three short holes tested the Arcee gold surface geochemistry anomaly. Collar locations are provided in Table 6.

Table 6: Drill hole collar location data

Hole ID	Drill hole Type	Easting (GDA94 Zone 52)	Northing (GDA94 Zone 52)	RL (m)	Azimuth (degrees, GDA94)	Dip (degrees)	Total depth (m)	Target
19LMRC069	RC	504450	7456316	417	217.8	-65.7	346	Faster
19LMRC070	RC	500492	7448148	435	44.8	-60.4	106	Arcee
19LMRC071	RC	500588	7448208	435	222.9	-60.2	100	Arcee
19LMRC072	RC	500767	7447930	436	47.4	-60.6	190	Arcee

9.1 Sampling and processing protocols

Geological logging of RC chips was completed on metre intervals, with 4 m composite samples collected from the rig cyclone for assay. One metre assay samples were collected from spoil piles using a scoop, from intervals displaying evidence of significant alteration or visible sulfide mineralisation. Portable XRF readings were collected from the 4 m composite bags and was used routinely to help with lithological identification and any non-visible or complex mineralisation (e.g. invisible gold or multiple fine-grained sulfide minerals). This data helped to guide where single metre in fill samples were collected for assay.

Samples selected for assay were prepared at the Intertek Genalysis laboratory in Alice Springs (NT) and then forwarded to their Maddington laboratory (WA) for analysis. Each sample (excluding standards) was crushed and pulverised. 1 m RC samples were subject to a four-acid digest with an optical emission spectrometry (OES) finish. Gold was additionally determined by fire assay (FA) using a 25 g charge. All RC samples were subject to an aqua regia digest with a mass spectrometry (MS) finish. Detection limits for each element are summarised in Table 7.

Table 7: Summary of analytical methods used for RC drilling.

Sample Type	Digest (Lab Code)	Finish (Lab Code)	Element (Detection Limit)
1 m infill (reverse circulation)	Four Acid (4A)	Inductively coupled plasma optical emission spectrometry (OE33)	Ag (0.5 ppm), Al (50 ppm), As (10 ppm), Ba (2 ppm), Bi (5 ppm), Ca (50 ppm), Cd (0.5 ppm), Ce (20 ppm), Co (1 ppm), Cr (5 ppm), Cu (1 ppm), Fe (100 ppm), K (20 ppm), La (20 ppm), Li (1 ppm), Mg (20 ppm), Mn (1 ppm), Mo (2 ppm), Na (20 ppm), Ni (1 ppm), P (50 ppm), Pb (5 ppm), S (50 ppm), Sb (5 ppm), Sc (1 ppm), Sn (5 ppm), Sr (1 ppm), Te (5 ppm), Ti (5 ppm), Tl (5 ppm), V (1 ppm), W (5 ppm), Zn (1 ppm)
	25 g Lead collection fire assay (FA25)	Inductively coupled plasma optical emission spectrometry (OE04)	Au (1 ppb)

4 m composite (reverse circulation)	10 g aqua regia (AR10)	Inductively coupled plasma mass spectrometry (MS33)	Au (1 ppb), Ag (0.05 ppm), Al (20 ppm), As (1 ppm), B (10 ppm), Ba (1 ppm), Bi (0.05 ppm), Ca (100 ppm), Cd (0.05 ppm), Ce (0.01 ppm), Co (0.1 ppm), Cr (1 ppm), Cu (1 ppm), Fe (10 ppm), K (20 ppm), La (0.01 ppm), Mg (100 ppm), Mn (1 ppm), Mo (0.1 ppm), Na (100 ppm), Ni (1 ppm), P (20 ppm), Pb (0.5 ppm), S (500 ppm), Sb (0.05 ppm), Sc (1 ppm), Sr (0.2 ppm), Te (0.1 ppm), Ti (5 ppm), Tl (0.05 ppm), V (2 ppm), W (0.1 ppm), Zn (1 ppm)

9.2 Drilling results

The RC hole drilled to test the Faster electromagnetic target intersected broad sulfide zones within biotite-rich metamudstone and metasandstone. These sulfide zones were dominantly pyrrhotite, with minimal base and precious metal enrichment.

Three holes tested coherent surface geochemistry anomalism at the Arcee prospect (an 800 m long > 50 ppb gold anomaly from soil sampling). The first two holes formed as a scissor under the peak gold soil anomaly. The third hole intersected an unexpected orthoamphibolite intrusion, and was extended to nearly twice the planned length, so as to intersect the lower contact of this sill, effectively testing underneath the peak gold anomalism.

9.3 Mineralisation

Hole 19LMRC071 intersected low level gold enrichment against the northeastern margin of an orthoamphibolite sill. 19LMRC072 intersected a broader mineralized zone (12 m @ 3.6 g/t Au from 112 m) in the centre of the same orthoamphibolite. This mineralisation was associated with a slight increase in sulfide content through the interval.

High gold concentrations in these three drill holes are not characterised by any other anomalous major or trace elements. The orogenic gold-style mineralisation appears to be structurally-controlled, possibly along a shear zone that transects the orthoamphibolite.

Table 8: Significant drill intercepts (>1 g/t Au) in 4 m composite samples

Hole ID	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	As ppm	Bi ppm	S ppm
19LMRC072	116	124	8	4.9	-0.5	1.5	0.1	5950

Table 9: Significant drill intercepts (>1 g/t Au) in 1 m single samples.

Hole ID	From (m)	To (m)	Interval (m)	Au g/t	Ag g/t	As ppm	Bi ppm	S ppm
19LMRC071	34	35	1	1.4	-0.5	-10	0.1	7
19LMRC072	117	118	1	4.9	1.1	2	-5	8472
19LMRC072	119	122	3	11.6	1.2	-10	-5	7116
19LMRC072	123	124	1	1.18	1	-10	-5	4790

10 Geotechnical Studies

Nothing to report.

11 Resources and reserve estimation/modelling

Nothing to report.

12 Conclusion and recommendations

The drilling results at the Arcee gold prospect are encouraging, particularly in drill hole 19LMRC072. More drilling should be planned to scissor 19LMRC072 to ascertain the thickness and dip direction of the controlling structure. Drilling should also be extended along strike using the anomalous soil sampling trends as a proxy for mineralisation undercover. Further infill soil sampling should be completed to provide greater resolution on gold anomalism and to define the extent of these gold-rich zones. Reconnaissance field mapping should be conducted to ground truth the position of the orthoamphibolites and metasedimentary units of interest at surface.

The results indicate potential for further orogenic gold occurrences across the larger tenement package. Consequently a review of all gold soil anomalies to date should be conducted to ensure other zones do not require follow-up drill testing.

13 References

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