# Quarterly Activities Report 31 March 2021



### **HIGHLIGHTS**

- High priority areas have been defined in our Eastman E80/4990 tenement in the East Kimberley for assessment and drilling during the upcoming 2021 field season.
- The priority targets were defined using Peako's comprehensive data library integrated with recent field work, incorporating a range of encouraging features such as anomalous gold geochemistry (soil, rock, drilling), geophysics (VTEM, magnetics), prospective geology and structure, as well as encouraging satellite SWIR alteration indicators.
- Planning and staffing for Peako's 2021 field season that will incorporate aircore drilling of high priority targets, regional mapping of the northern E80/5182 tenement and RC drill testing of key prospects.

## **PROJECTS**

## **East Kimberley Copper-Gold Project**

Peako's exploration focus is its large consolidated ground-holding across five exploration tenements in the East Kimberley region of Western Australia incorporating an a 1,999 km² area (Figure 1) comprising two granted tenements (E80/4990 and E80/5182) and three areas under application (E80/5346, E80/5472 and E80/5220).

Systematic exploration across the East Kimberley has largely lagged behind many of Australia's Proterozoic provinces with past exploration programs broadly characterised by sporadic campaigns over the past 50 years incorporating numerous explorers across multiple commodities and fragmented, non-contiguous tenement holdings. Historical exploration, primarily guided by occurrences of surface gossan and geochemical anomalies, has provided consistent encouragement of the area's economic potential. At the same time, discovery efforts have been consistently hindered by a mix of cover, subcrop, poorly understood regolith, deep weathering and complex stratigraphy/structure, despite highly favourable host rocks, structure and known mineralisation across the area. A substantial focus of Peako's activities has centred on realising the value of the historical datasets within our consolidated tenement package by aligning this data into a validated, non-fragmented framework. This approach has maximised value and constrained geochemical, geological, and structural frameworks from which targeted and effective exploration can springboard. Our integrated SQL-based data platform, as well as recent data satellite and reconnaissance rock chip datasets, are pivotal to the definition of robust high quality targets that are ready for testing in the 2021 field season.

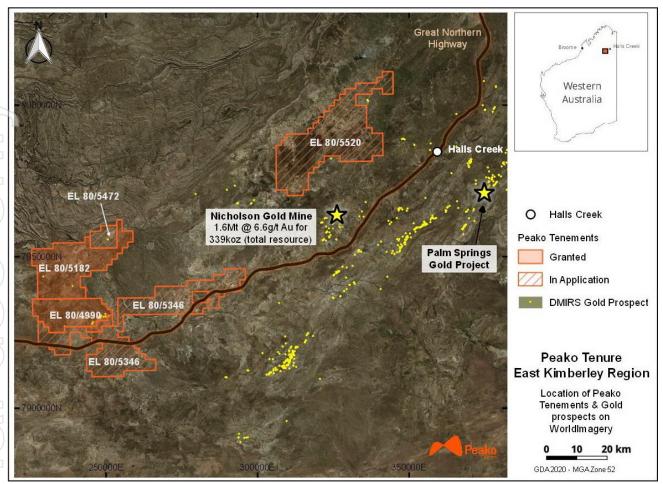


Figure 1 Peako's East Kimberley tenement holdings and location of major gold deposits and gold occurrences (DMIRS database).

#### **Geological Setting**

The Eastman (E80/4990) and Wirana (E80/5182) tenements host a diverse Paleoproterozoic succession that is widely intruded by multiple granitoid phases and deformed by multiple orogenic episodes. The area represents the western-most window of the Halls Creek Orogen where volcanic successions of the bimodal Koongie Park Formation volcanic belt (c. 1845 Ma) and the Lamboo Ultramafic (LUM) intrusive belt (c. 1850-1835 Ma) are well developed. Moreover, recent satellite imagery and rock geochemistry define an array of multistage, poorly constrained granitoid intrusions across the tenements, with compositions that include granite, granodiorite, diorite, monzogranite and granophyre. The geological diversity within the tenement package has driven the search for a wide range of commodities by present and past explorers. The Koongie Park Formation (KPF) has demonstrated prospectivity for base (Cu-Pb-Zn) and precious (Ag, Au) metals with postulated mineralisation styles varying from VHMS to SVAL-hybrid styles, to epithermal and skarnoid mineralisation associated with widespread carbonate facies in the KPF stratigraphy. In addition, mafic to ultramafic intrusions of the Lamboo Ultramafic complex have demonstrated prospectivity for base metal (Ni, Cu) and precious (Au, PGE) metals with potential mineralisation styles varying across magmatic, cumulate to intrusion or orogenic-related gold associated with deep crustal-tapping fertile structures.

Peako's most recent tenement application E80/5520 is located 35km east of Halls Creek (Figure 1) in an area that has undergone minimal historical exploration due to widespread Cenozoic cover sequences across the tenement. Interpreted geology identifies fertile LUM rock types with known gold, nickel and base metal prospects in exposed areas adjacent to the tenement. A major 500km long NE-SW trending fault system (Springvale-Billabong Fault) is interpreted in central portions of the E80/5520 tenement, and could provide a splayed structural setting prospective for structurally localised gold systems, similar to those observed at Nicholsons gold mine proximal to the Nicholsons shear zone some 20 kms to south (refer Figure 1).

#### **Recent Activities**

Activities by Peako in 2018 and 2019 focussed on the evaluation of base metal potential at the known Landrigan and Eastman prospects. Programs of work incorporated Induced Polarisation (IP) and RC drill testing of defined IP target zones supported by a Round 19 Exploration Incentive Scheme co-funded drilling grant from the Western Australian government. Peako's 2019 RC drilling program incorporated a total of 15 holes for 2,398m with VHMS/SVAL-style mineralisation confirmed at Landrigan with assay intercepts including: 6m at 6.52% Cu 27.27g/t Ag and 1.16g/t Au (PLRC004), and 15m at 1.04% Cu, 8.88g/t Ag and 0.38 g/t Au including 6m at 1.61% Cu, 7.23g/t Ag and 0.62g/t Au (PLRC011). Key results from 2019 RC drilling was delineation of an endowed mineralized structure with anomalous Cu-Au-Ag over a 200m strike with the structure remaining open in dip and strike. 2019 RC drill results also underpinned our improved geological and structural model of the KPF at Landrigan and Eastman but also refocussed Peako's efforts in 2020 to a phase of digital capture of data, coincident to delays in planned field work due to the outbreak and duration of the ongoing global Covid-19 pandemic. Our philosophy to capture more than five decades of historical multi-faceted, multicommodity geological data over the E80/4990 tenement was embraced to maximise our knowledge of geology and potential mineralisation models to fully realise the prospectivity of the area and to define and prioritise high quality robust targets for efficient field testing programs aimed at economic discovery in the upcoming field season.

Substantial efforts over the last year have focussed on the extraction and capture of assay and spatial geology data from historical reporting and maps. These datasets are now being migrated into an SQL database to empower critical streamlined work flows for all forward data capture, GIS and 3D visualisation software and will maximise data integration to drive our dynamic geological understanding across the tenement areas.

A key outcome of data compilation work has been the recognition of a latent gold potential across the Eastman E80/4990 tenement (Figure 2), widely overlooked by past explorers. For many past explorers, gold was peripheral to their base metal and PGE exploration focus at the time, where many historical explorers did not analyse soil, rock or drill samples for gold.

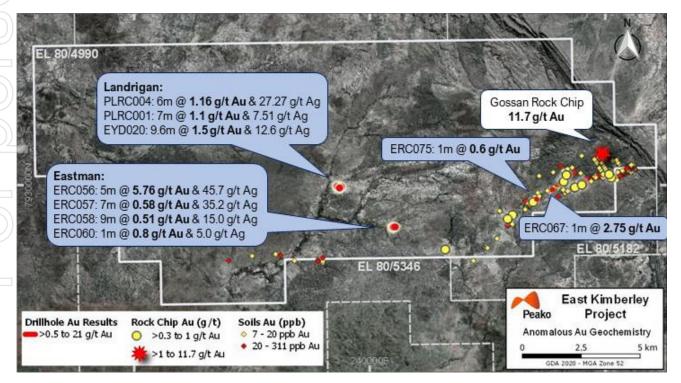


Figure 2 Historical gold assay including rock, soil and drillhole on E80/4990 that demonstrate the latent gold potential of the area.

Potential gold prospectivity on the Eastman E80/4990 tenement is widely validated by the known gold signature that is particularly pronounced at the Landrigan and Eastman prospects and across the Lamboo Ultramafic sequence. Examples include Peako's 2019 RC drilling results such as PLRC004 with 6m at 1.16g/t Au and 27.27g/t Ag and PLRC001 with 7m at 1.1 g/t Au and 7.51 g/t Ag, as well as historical rock chip results that have returned Au grades up to 11.7g/t Au. Petrology results from 2019 RC samples at Landrigan also define at least some of the gold to occur as free grains hosted by deformed quartz veins.

Data capture activities during the quarter focussed on the east-west trending Eastman Bore layered ultramafic intrusion that has a 10km strike extent in the southeast of the E80/4990 tenement (Figure 3). Compiled historical data identifies substantial anomalism of Cu-Ni, Pt-Pd and gold across the Eastman Bore LUM suite including VTEM and magnetic anomalies that have not been followed up. Upcoming aircore drilling will test some of historical soil geochemistry anomalies in areas of cover whilst subcropping targets will be tested by RC drilling later in the year.

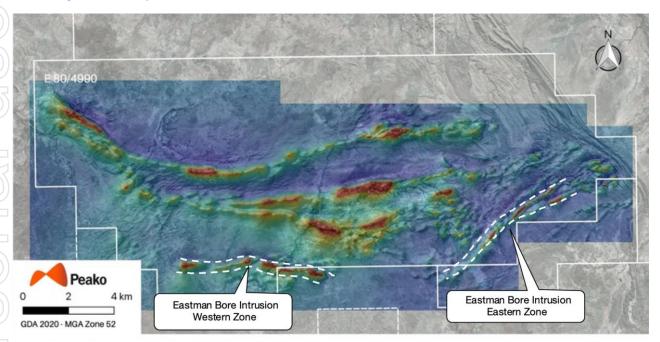


Figure 3 E80/4990 TMI-RTP magnetic drape over Worldview-3 imagery with Eastman Bore Intrusion

#### **Priority Targets for Testing**

A suite of high priority target areas are defined on the Eastman tenement for early follow-up and testing during the 2021 field season (Figure 4, Table 1). Target areas are defined from a mix of favourable geology, structure, demonstrated anomalism in rock and/or soil geochemistry, outstanding geophysical targets (VTEM and magnetics) amongst the mix. Furthermore, the targets can be divided into two types based on either KPF or LUM host rock sequences, as follows:

- KPF (six targets) within bimodal volcanic to volcaniclastics with interbedded carbonate and ironstone facies intruded by multistage, multi-compositional porphyry intrusions with targets having potential for base metal and gold endowment.
- LUM (four targets) affiliated with structurally complicated peridotite to pyroxenite cumulate layers dissected by large cataclastic quartz vein sulphide-bearing shear zones intruded by multistage granitoid/porphyry. Ultramafic units have ubiquitous soil gold anomalism (Au >7 ppb), potentially affiliated with fertile crustal structures.

The spread of priority targets across E80/4990 represent a suite of targets at different stages in our exploration pipeline where some targets have little to no previous exploration, whilst other targets are advanced with previous detailed mapping, geochemistry, drilling, magnetics-radiometrics and an array of geophysical targets including VTEM and TEM.

	Prospect	Targets	Target Style
	Brumby	3	Defined geochemical and spectral anomalies; Intrusion related gold, Ni-PGE and copper targets
	Eastman Bore 1	4	Defined geochemical and spectral anomalies; Intrusion related gold, Ni-PGE and copper targets
	Louisa	4	Gold lode targets with defined folds and shear zones association with known quartz vein arrays; intrusion related gold, Ni-PGE and copper targets
	Eastman-2 Area	5	Defined geochemical and spectral anomalies; Intrusion to skarn related gold and copper targets
	Eastman East	4	Defined geochemical and spectral anomalies; Intrusion to skarn related gold and copper targets
	Eastman Yard 9	1	Defined geochemical and spectral anomalies; Intrusion related gold and copper targets
	Wedge	1	Defined geochemical and spectral anomalies; Intrusion related gold and copper targets
	Yellowstone & Stein Creek	3	Intrusion related gold and copper targets
	Bullock	4	Defined geochemical and spectral anomalies; Intrusion related gold, Ni-PGE and copper targets

Table 1 Priority prospect areas – key features

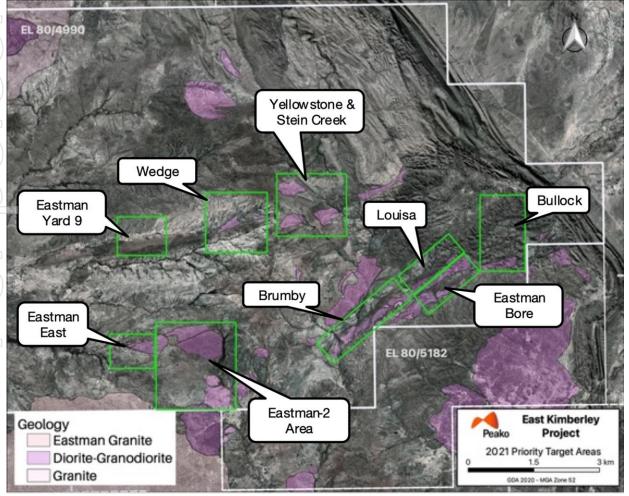


Figure 4 High priority target areas on the E80/4990 Eastman tenement for immediate follow up in the 2021 field season.

Efforts during the quarter were focused on planning and arrangements for an intensive exploration campaign during the 2021 field season to test our most robust targets.



Figure 5 Peako exploration team en route to East Kimberley Project.

Field work commenced shortly after the end of the quarter, following the end of the wet season. Peako's 2021 field season is configured in two parts with the first half incorporating final target ground validation, relogging of located historical diamond core, preparatory work and aircore drilling of key target areas, and the second half planned for RC drilling.

#### Phase 1 Activities - Aircore Drilling and Wirana target definition

The first phase of Peako's 2021 field season incorporates field checking validation, and tightening of target zones to be followed by aircore drilling of the prioritised targets and scheduled to commenced in May 2021. Aircore drilling will incorporate 6,000m+ to test priority targets defined on Eastman E80/4990.

Reconnaissance mapping and rock sampling of the Wirana (E80/5182) tenement is also planned to define targets for follow-up later in the field season.

## **Phase 2 RC Drilling**

The later portion of the field season is being planned for RC drill testing of successful phase 1 targets as well as advanced targets such as the Louisa and Eastman Bore prospects that incorporate a wide range of historical datasets (geochemistry, geophysics and drilling) (refer Figure 6) and represent walk up drill targets once the field checking validation is complete.

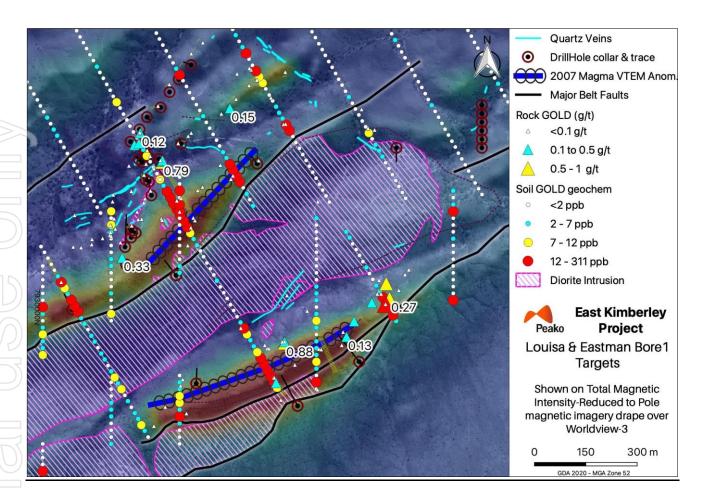


Figure 6 Louisa and Eastman Bore Drilling Targets

#### **EIS funding**

Peako's 2021 aircore and RC drilling activities are supported by two Western Australian Government Exploration Incentive Scheme ("EIS") co-funded drilling grants totalling \$320,000. The Round 21 EIS grant is for an amount of \$150,000 for 50% of direct drilling costs incurred prior to 30 June 2021. The Round 22 grant is for a further \$150,000 amount for 50% of direct drilling costs incurred prior to 31 December 2021, as well as up to \$20,000 towards mobilisation costs.

#### Wirana E80/5182

The Wirana (E80/5182) tenement incorporates an area of 421.9 km2 contiguous to Peako's Eastman (E80/4990) tenement (Figure 1). Regional geology and recently completed Worldview-3 imagery over the tenement confirm the area to contain prospective host rock sequences including LUM, Marboo Formation and numerous granitoid intrusions of undefined affiliation. The tenement has a widespread suite of historical base and precious metal prospects at Glidden, Pond Spring, Taylor River, Lilyhole, Mt Ramsay as well multi-prospect fields at Hells Gates and Me No Savvy; the latter contained within Peako's E80/5472 application (Figure 7). The complete area has only undergone precursory work by historical explorers.

During the quarter Peako undertook interpretation of the Worldview imagery and literature review over the Wirana tenement to assist with the prioritisation of areas for a phase of reconnaissance field checking, mapping and a rock sampling program to occur during the 2021 field season.

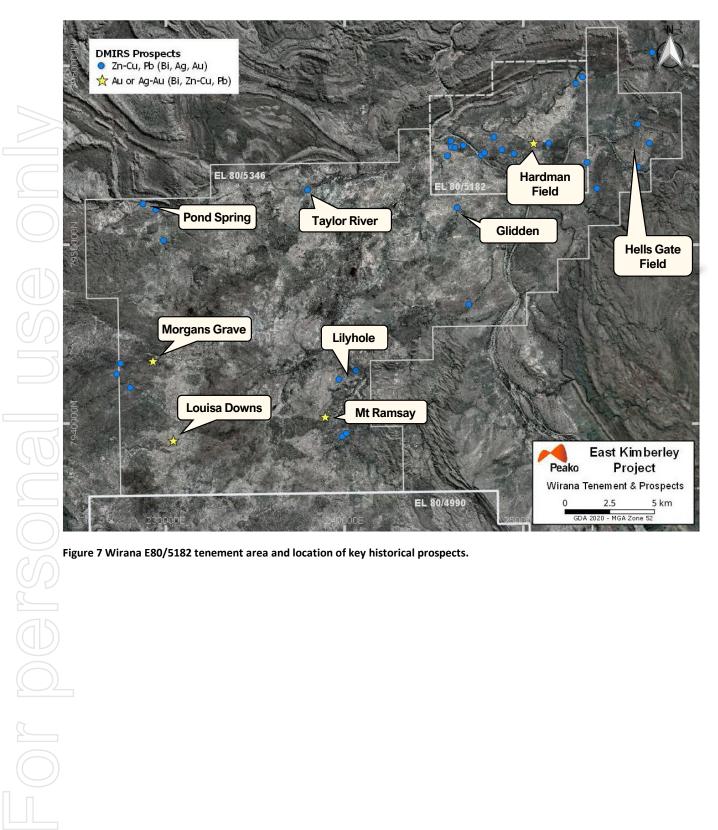


Figure 7 Wirana E80/5182 tenement area and location of key historical prospects.

## **Paterson Province, Sunday Creek**

Peako's Broadhurst (Sunday Creek) Project tenement is located in the Rudall River area of the Paterson province of Western Australia (Figure 8). Peako also has three long standing applications for exploration licences located close to its Broadhurst Project tenement. Historical geological mapping indicates bedrock geology of the project area is largely carbonaceous shales and siltstones of the Broadhurst Formation, and lesser quartz sandstone and siltstone of the underlying Coolbro Sandstone Formation.

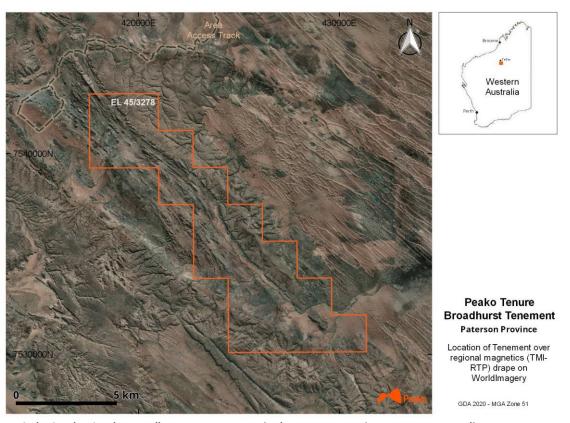


Figure 8 The Sunday Creek - Broadhurst tenement area in the Paterson Province, Western Australia.

The Broadhurst tenement is under-explored and hosts an array of encouraging features that indicate the potential of the area for Nifty (Cu) or Maroochydore (Cu-Co) style mineralisation. Historic exploration has been minimal and fragmented, comprising a 'revolving door' of explorers, divided in commodity focus between Base Metals or Uranium. Only very limited, precursory drilling has been completed on the tenement (a total of 6 holes for 1,243m) all testing for Uranium, with base metal mineralisation targets in the Broadhurst Formation remaining untested.

## **REFERENCES**

The information in this report that relates to Exploration Results was previously reported in ASX announcements listed below. The Company is not aware of any new information or data that materially affects the information included in each relevant market announcement.

Further details can be found in the following Peako ASX announcements.

21 April 2021	Investor Presentation		
13 November 2020	East Kimberley Exploration Update		
20 August 2020	East Kimberley Exploration Update		
30 April 2020	Quarterly Activities Report		
30 January 2020	Further Sampling Confirms Cu-Au-Ag Drill Results at Landrigan		
28 November 2019	East Kimberley Drilling Results Extend Known Copper-Gold		
	<u>Mineralisation</u>		
30 September 2019	Extension of East Kimberley Copper-Gold RC Drilling Program		
23 September 2019	RC Drilling Commences at East Kimberley Copper-Gold Project		
23 May 2019	<u>Drilling Grant Awarded</u>		
28 November 2018	Projects Update		
31 October 2018	Quarterly Activities Report		
15 August 2018	IP Geophysical Survey to Commence Shortly at Eastman		

## **Competent Person Declaration**

The information in this report that relates to Exploration Results is based on information compiled or reviewed by Dr Darryl Clark who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM). Dr Clark is a director of and consultant to Peako Limited and has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity 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, Mineral Resources and Ore Reserves. Dr Clark consents to the inclusion in this report of the matters based on information provided by him and in the form and context in which it appears.

#### **GLOSSARY**

GIS Geographic Information System

KPF Koongie Park Formation

LUM Lamboo Ultramafic

SQL Structured Query Language

SVAL Stratabound Volcanic-Associated Limestone-skarn

TEM Transmission Electron Microscopy

VHMS Volcanogenic-hosted massive sulphide

VTEM Versatile Time Domain Electromagnetic

Rae Clark, Director 29 April 2021

## Additional Information Required by Listing Rules 5.3.3 and 5.4.3

Tenements held/applied for at the end of the quarter and their location

Tenement	Peako interest	Tenement status	
Western Australia	(East Kimberley Region)		
E 80/4990	100%	Granted	
E 80/5182	100%	Granted	
E 80/5346	100%	Application	
E80/5472	100%	Application	
E80/5520	100%	Application	
Western Australia	(Paterson Province)		
E 45/3278	100%	Granted	
E 45/3345	100%	Application	
E 45/3477	100%	Application	
E 45/3292	100%	Application	

Tenements acquired during the quarter and their location

Nil.

Tenements disposed of during the quarter and their location

Nil.

Beneficial percentage interests held in farm-in or farm-out agreements at the end of the Quarter:

Nil.

Payments to related parties during the quarter included in Appendix 5B – Quarterly Cash Flow Report

Payments were made to directors and their associates during the quarter totalling approximately \$115,000. Payments were for contracted services including consulting fees, office costs and administrative support.