



**NORFOLK**  
METALS LTD.

**NORFOLK METALS LTD PREPARED ANNUAL REPORT  
FOR 100% OWNED SUBSIDIARY**

**ROGER RIVER RESOURCES PTY LTD  
EL17/2021  
PARTIAL SURRENDER REPORT**

**4TH OCTOBER 2024**

**PREPARED BY**

BEN PHILLIPS, LEO PILAPIL, YUNUS OZCAN

**INCLUDED DATA**

**COMPANY DETAILS**

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## EXECUTIVE SUMMARY

Norfolk Metals Ltd acquired 100% of this issued capital in Roger River Resources Pty Ltd upon the successful raising of AUD\$5,500,000 and successful listing on the Australian Stock Exchange (ASX). Roger River Resources Pty Ltd hold the project known as The Roger River Gold Project.

The Roger River Gold Project comprises two granted exploration license, EL20/2020 and EL17/2021, which together cover 261km<sup>2</sup>, located 410km northwest of the capital city of Hobart, Tasmania.

The Project is prospective for gold as indicated by the intense silicification, argillisation and diatreme breccias in close proximity to the RRF along with carbonate-rich host rocks.

The Project covers the regional Roger River Fault (RRF) which is traced over ~50km strike. This fault is a NNE trending major structure transecting Neoproterozoic rocks at the eastern margin of the Smithton Basin/Smithton Synclinorium.

By comparison with other major basin bounding faults in western Tasmania it is likely that the Roger River Fault has been through at least two major orogenic deformation events during the Paleozoic and it may have been reactivated again during the regional Cenozoic rifting and volcanism associated with the development of the Bass Basin (Morrison, 2014).

The region has minor registered gold, copper, lead and iron occurrences in the Tasmanian geological survey data.

The Roger River Project is primarily prospective for gold as indicated by the intense silicification, argillisation and diatreme breccias in the hanging wall of the steeply east- dipping, reverse Roger River Fault along with carbonate-rich host rocks which can result in emplacement of hot spring related epithermal mineralization.

The rocks hosting the silicification zone comprise well bedded and banded dolomites, calcareous and dolomitic siltstones, grits, black shales and some cherts on the east or hanging wall side of the RRF, capped on topographic highs in places by basalt. The west or footwall side of the RRF contains dolomites, dolomitic siltstones and other carbonate-rich rocks.

This report outlines the exploration work completed on the partially surrendered area of EL17/2021 since inception from 7<sup>th</sup> September 2022 to 5<sup>th</sup> July 2024.

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# SUMMARY OF ACTIVITIES VIA MAPS

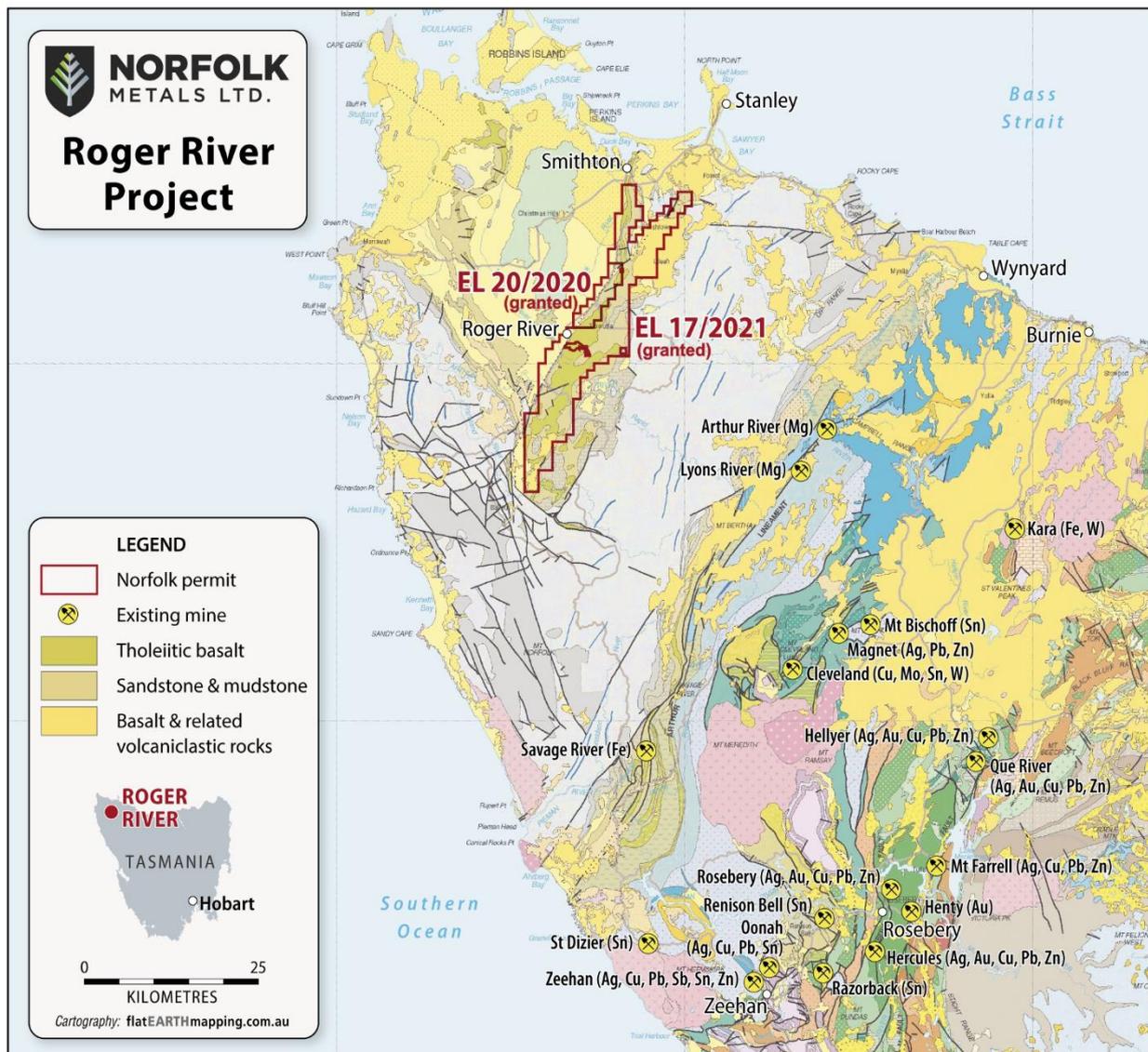
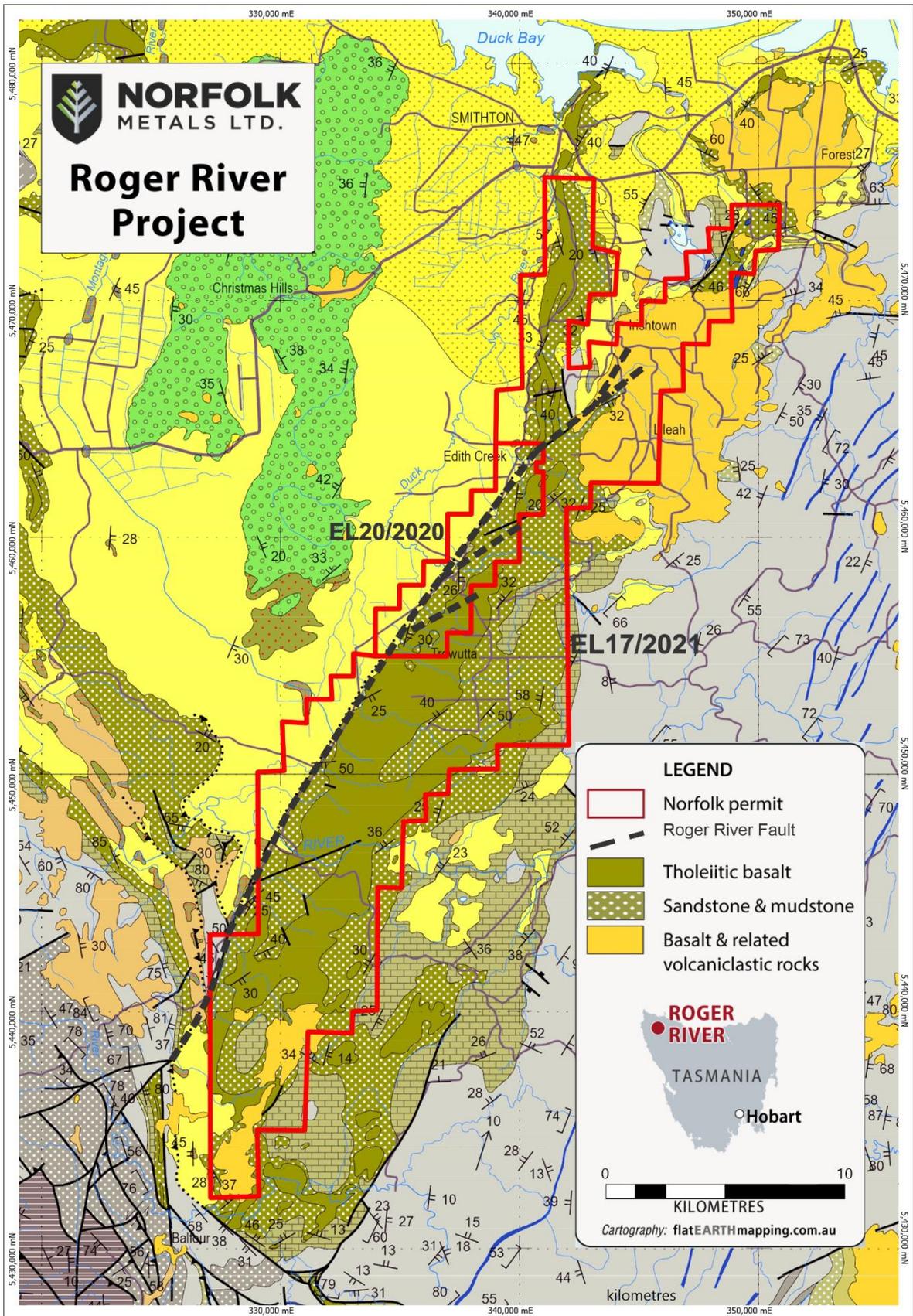


Figure 1: Location



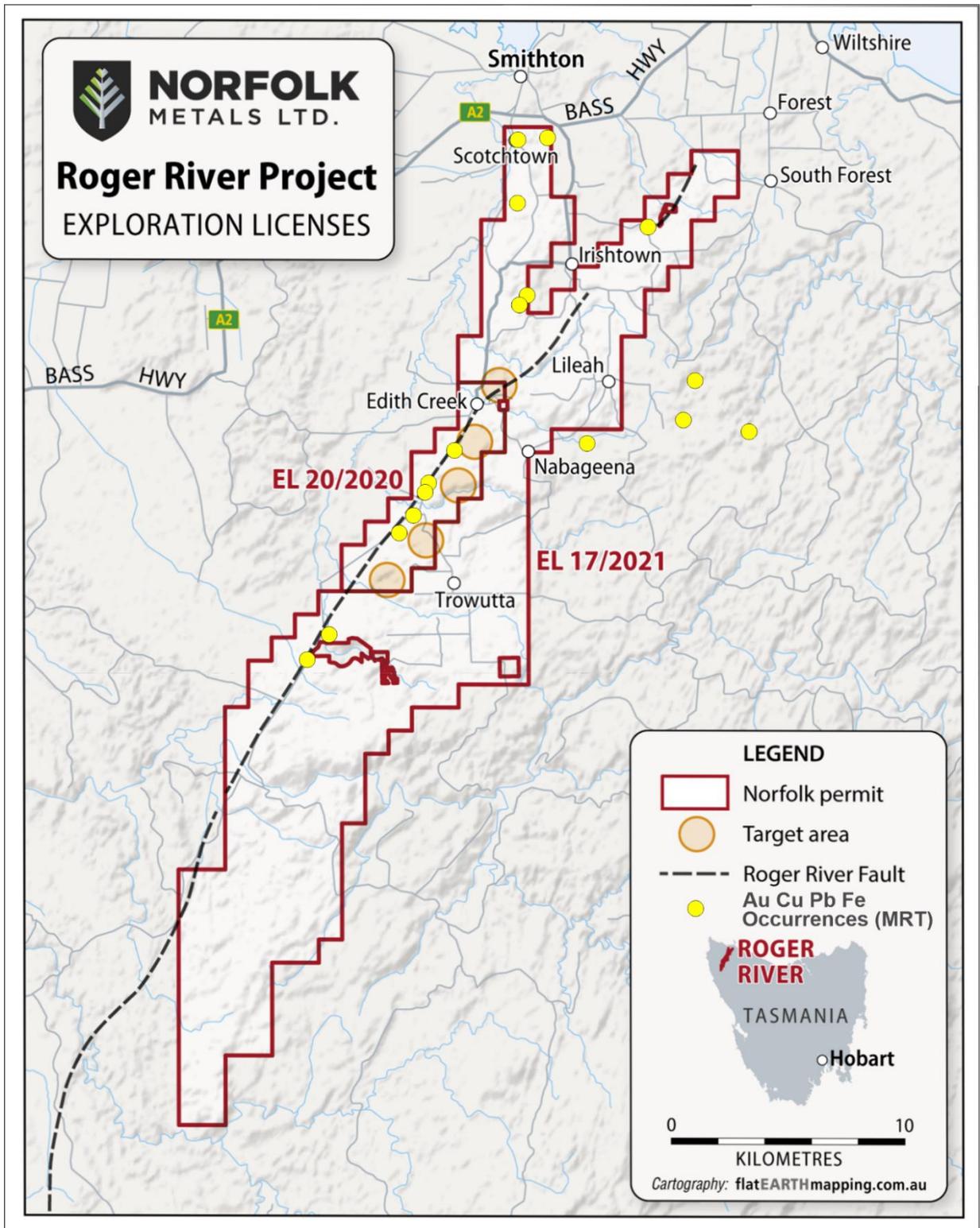


Figure 3: Mineral Occurrences

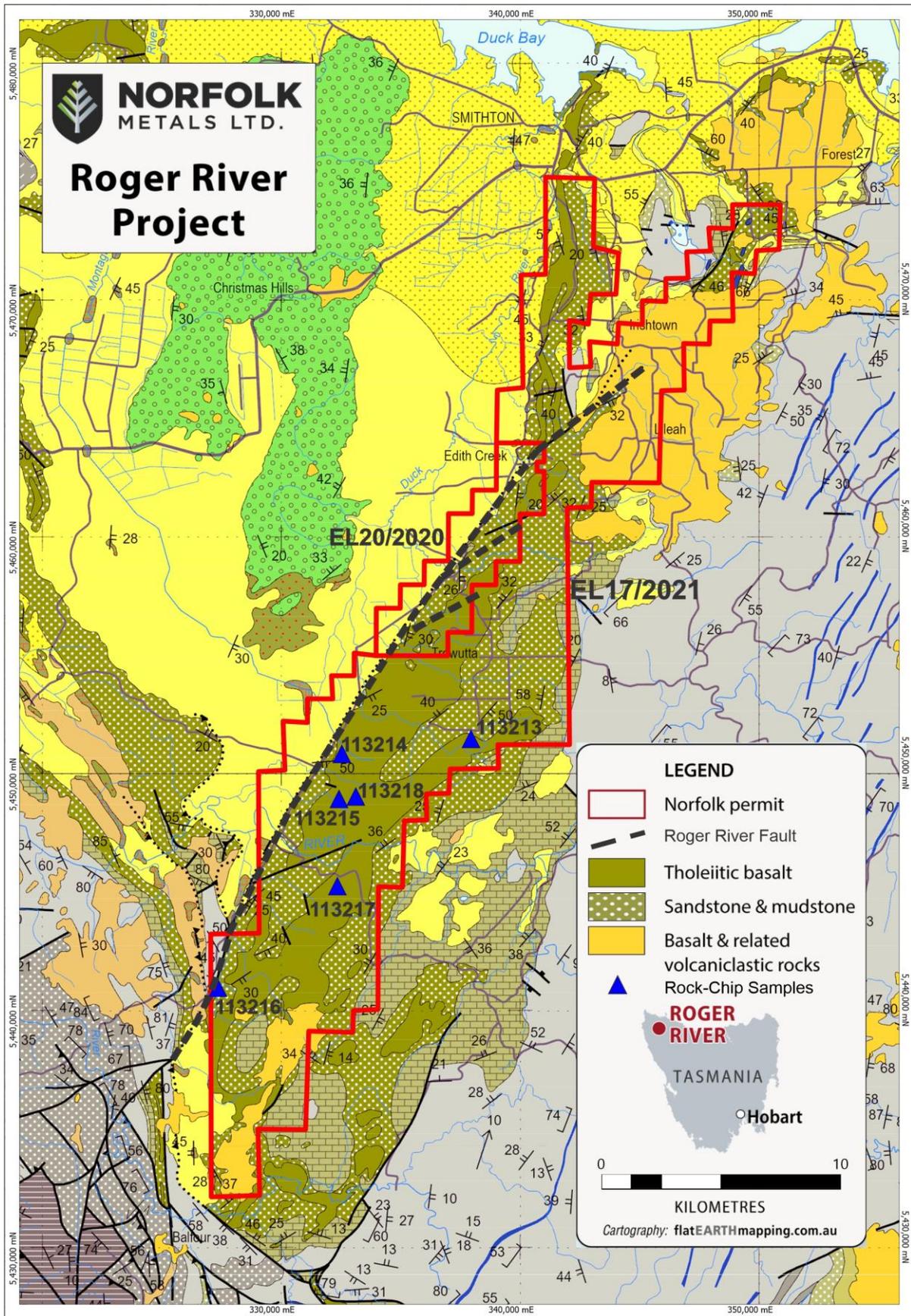
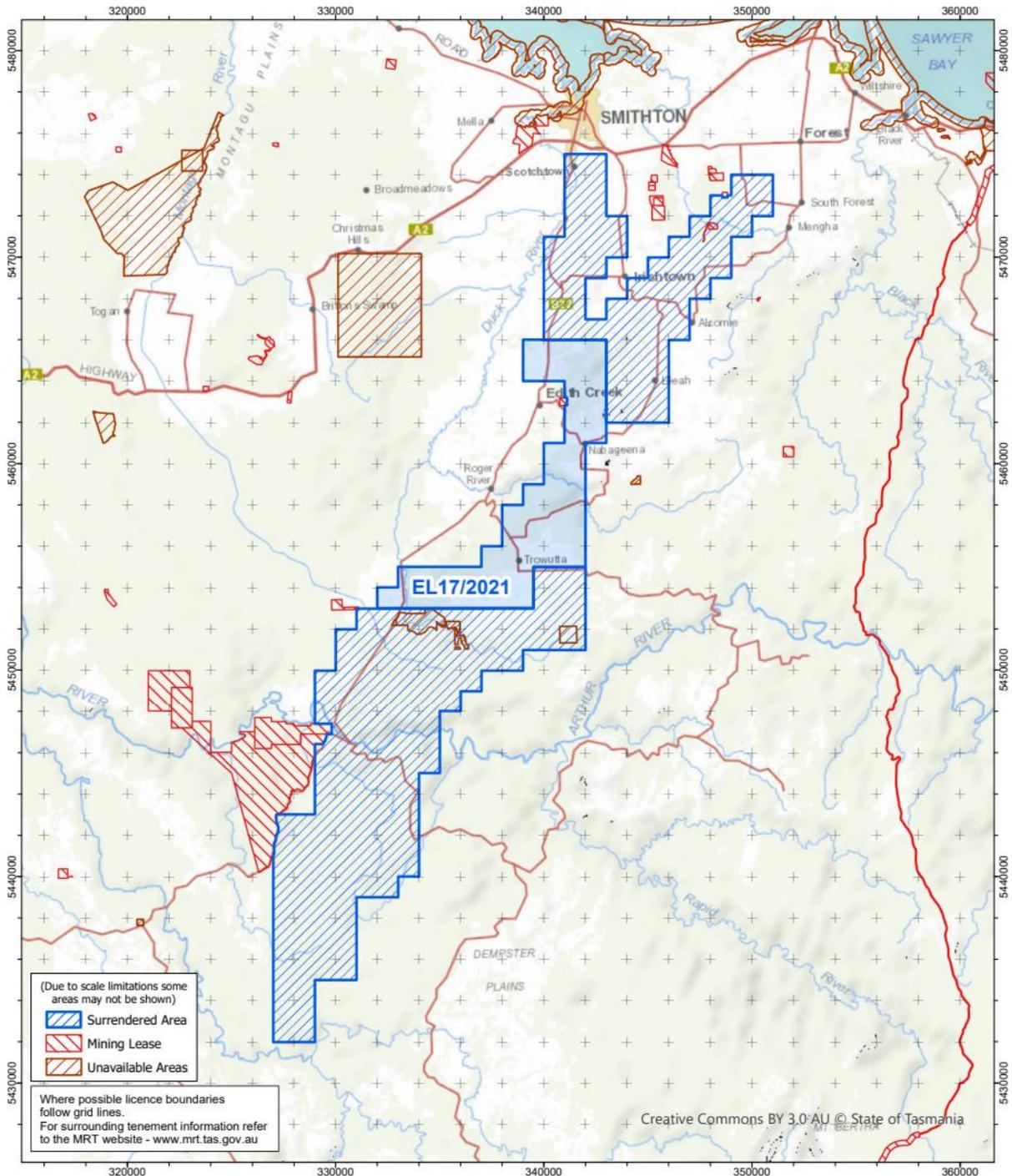


Figure 4 - Rock Chip Geochem Location Map



**EL17/2021 48km<sup>2</sup>**  
**Vicinity of Edith Creek**  
**(Category 1 Minerals)**

0 2 4 6 8 10 km

1:250,000

Coordinate Datum - GDA94 MGA Zone 55

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Base image by TASMAR  
(www.tasmap.tas.gov.au)  
© State of Tasmania

Figure 5 – EL17/2021 Partial Reduction New Tenement

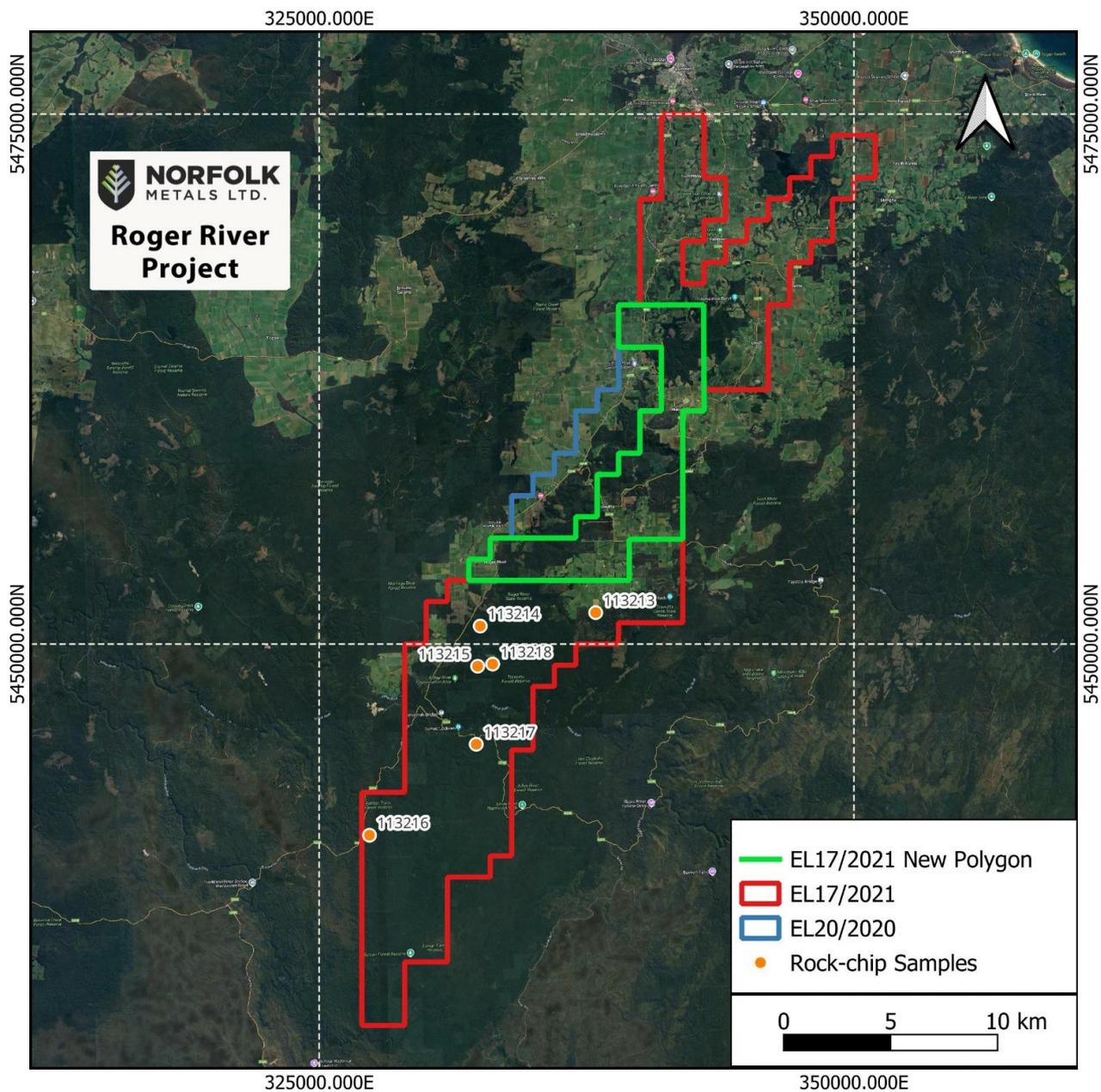


Figure 6 – EL17/2021 Rock chip samples location

## EXPLORATION RATIONALE

Historically, EL17/2021 is an underexplored region prospective for gold, copper and base metals. The dominant geological feature in EL17/2021 is the Roger River Fault, which has had a long history of activity including a Neoproterozoic period during the deposition of dolomite, basalts and volcanoclastics that form part of the Togari Group. Mineralizing fluids may have circulated in the fault during this Neoproterozoic period or at some later geological time.

A narrow, 3km long zone of silica rocks that coincides with the Roger River Fault at Roger River is interpreted as a relatively high, strongly leached part of an epithermal alteration system that may carry gold, copper and base metals at depth.

During the reporting period, Norfolk Metals Ltd (NFL) did not conduct any ground exploration activities. With the review of the company's focus and strategy on the adjacent tenement EL20/2020, the tenement size of EL17/2021 was reduced/partially surrendered (Figure 5). This was approved by Mineral Resources Tasmania on 5<sup>th</sup> of July 2024.

## LEASE INFORMATION

### **ROGER RIVER RESOURCES PTY LTD EL17/2021**

PARTIAL SURRENDER REPORT: 7<sup>TH</sup> SEPTEMBER 2022 TO 5<sup>TH</sup> JULY 2024

### **ROGER RIVER RESOURCES PTY LTD ANNUAL REPORT PREPARED FOR NORFOLK METALS LTD OWNER OF 100% OF ISSUED CAPITAL IN ROGER RIVER RESOURCES PTY LTD**

#### COMPANY DETAILS

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## REVIEW OF PREVIOUS WORK

Pacific-Nevada Mining Pty Ltd carried out mapping, soil sampling and rock chip sampling over a hematite-magnetite-pyrite iron formation in the Keppel Creek Formation at Canadian Creek (Westbrook, 1999). This work extended into the northern end of the southern block of what is now EL17/2021 (previously EL31/2005). It was concluded that the general lack of gold in soils was not encouraging of the Pacific-Nevada exploration models. The Pacific-Nevada stream sediment sampling in the area corresponding to EL31/2005 did not lead to any copper targets that were followed up.

The Smithton Dolomite is a possible host for zinc mineralization. However, there are no known surface expressions of such mineralization. Everard et al (2007) note that the Mississippi Valley style of deposit generally gives poor geochemical and geophysical responses and that grid drilling has been advocated as an appropriate exploration technique.

Consultants to Pacific-Nevada (Ken Snyder, Franco-Nevada) and to Greenstone Resources (Geoff Davis, see Radke & Davis, 1990) advocated an epithermal origin for the silica rocks at Roger River (Turner, 2003). Bulk composition, textures and trace element geochemistry suggest a relatively high, strongly leached level in an epithermal alteration system. Low level gold to 5 ppb is sporadically present. Arsenic is usually present at levels of up to 100 ppm, but may exceed 1000 ppm in uncommon, iron-rich rocks. Consistent with strong leaching, the base metal values are generally exceedingly low in both the silica rocks and their derived soils.

Exploration for silica resulted in identifications of a deposit on Blackwater No 1 Spur Road, just south of the Arthur River (Turner, 2005). This deposit is now held under mining lease by Tasmanian Advanced Minerals of Wynyard.

## EXPLORATION COMPLETED DURING THE REPORTING PERIOD

For the reporting period, desktop study of the historical open file data from MRT was conducted to delineate field exploration targets. Several data sets including sample location points, rock and stream sediment assays and various geophysical data were downloaded from the public domain.

In 2023, Norfolk investigated the locations of the known registered mineral occurrences within EL17/2017. The field observations also confirmed the relative position of the Roger River Fault and possible splays from the main fault.

Norfolk collected 6 rock-chip samples from the southern portion of the partially surrendered tenement (Figure 6). The samples collected were mainly from the Roger River Fault and possible splays where silicification and alteration were observed. The samples were sent to the Burnie ALS laboratory for analysis and all observations and readings collected by the company were recorded (Appendix A).

The works completed confirmed the locations of the known mineral occurrences to the north of the tenement. Altered rock samples were collected in the southern portion of EL17/2021 and observations confirmed the extension of the Roger River Fault in the area. The results of the geochemical analyses from the samples

collected were low level but 'typical' of assay results obtained from the adjacent Norfolk tenement EL20/2020.

In the year 2 anniversary of EL17/2021, there was no exploration work completed.

## DISCUSSION OF RESULTS

The desktop study and review of public domain data set from MRT revealed numerous locations of mineral occurrences within EL17/2021. The study showed that the tenement has minor registered gold, copper, lead and iron occurrences (Figure 3). The majority of the gold, copper lead and iron occurrences appear to concentrate along the Roger River Fault and possible splays. Field observations confirmed the positions of the mineral occurrences mainly as remnants of 'old' workings and surface rock 'floats' exhibiting the mineral registered.

General geology was also reviewed and reinterpreted with the focus mainly on relative position and extension of the Roger River Fault structure. The work on Norfolk's adjacent tenement EL20/2020 suggests that the presence of splays coming off the Roger River Fault are also important in hosting Cu mineralization. Field investigations could not identify definite outcrops of possible splays.

Due to the lack of information in the southern portion of EL17/2021, Norfolk decided to investigate the area to identify and confirm the extension of the Roger River Fault. During the site investigation, six rock samples were collected for multi-elements analyses (Figure 4). The samples exhibit strong alteration and minor silicification representing the Roger River Fault and possible splays from the main fault. The results were mainly low level but 1 silicified and altered basalt sample (sample 113214) from the Keppel Creek showed elevated gold, arsenic and zinc compared to background. This sample appears to be near the basalt/sediment contact. The relatively low assays results are 'typical' representative of other known altered rocks from Norfolk's other adjacent tenement EL20/2020.



**Photo 1: Sample 113214 – Silicified basalt with anomalous Au As Zn**

Sample 113216 was collected near the interpreted position of the Roger River Fault and is a basalt from the Spinks Creek Volcanics. It is the only sample collected with over 300ppmCu (339ppm).



**Photo 2: Sample 113216 – Basalt outcrop (Spinks Creek Volcanics) 339ppm Cu**

Sample 113217 was a basalt float near a possible splay position off the Roger River Fault. The sample contained native Cu but the Cu is not pervasive enough through the rock (<1%) to produce a more elevated Cu assay than 201ppmCu.



**Photo 2: Sample 113217 – Basalt float containing disseminated native Cu (<1%)**

## **CONCLUSION**

During the reporting period, NFL conducted a desktop study, collected/downloaded numerous data sets from the MRT open file database and collected some rock chip samples for analysis.

The works completed confirmed the locations of the known mineral occurrences to the north of the tenement. Altered rock samples were collected in the southern portion of EL17/2021 and observations confirmed the extension of the Roger River Fault in the area. The results of the geochemical analyses from the samples collected were low level but 'typical' of assay results obtained from the adjacent Norfolk tenement EL20/2020.

The tenement remains prospective for gold and copper mineralization and requires more studies to obtain a better understanding of the Roger River Fault and splays. The works conducted on Norfolk's adjacent tenement EL20/2020 will greatly benefit the understanding of the geology and mineralization on EL17/2021 and consequently provide a guide for future exploration.

However, due to decision by Norfolk to focus its limited funds on the adjacent and more prospective EL20/2020, EL17/2021 became a lesser priority and therefore reduced to a more manageable area primarily surrounding EL20/2020.

## **FUTURE EXPLORATION**

It is the intent of the company to continue the exploration on the reduced EL17/2021 tenement with the following: Conduct geochemical sampling of approximately 1,000 surface soil samples and initiate an airborne magnetic program via drone similar to the survey contracted by Atlas Geophysics on EL20/2020 in 2022. This information will assist in the planning of RAB/Aircore drill program.

## **ENVIRONMENTAL MANAGEMENT**

The exploration programs conducted during the reporting period were non-ground disturbing and hence there were no environmental issues to address. Any future exploration activities including drilling that requires drill sites and any associated earthworks will be created and rehabilitated according to the Mineral Exploration Code of Practice.

## EXPENDITURE

### ROGER RIVER EXPENDITURE – EL17/2021

#### YEAR 1

##### GEOLOGY AND GEOCHEMISTRY

Contract Geologists and Field Assistants	\$10,000.00
Geochemical Assays – 6 Rock Chips	\$465.00

##### OTHER

Accommodation, Utility Bills, Fuel, Meals	\$13,130.22
General office administration	\$3,000.00

#### YEAR 2

##### GEOLOGY

Other – Rental fees, Fuel, Satt Comms	\$1,164.00
Contract Geologists and Field Assistants	\$4,400.00
Administration	\$500.00

## APPENDIX A

### Table List of Attachments:

Exploration Work Type	Filename	File format	Explanation
Report	Roger River Resources Pty Ltd - EL17/2021 Partial Surrender Report October 2024	pdf	
Surface sampling	EL172021_202309_01_SL_1 EL172021_202309_02_SG_1	xls xls	Surface Location Surface Geochemistry
Other (specify)			
File Verification Listing ( <i>this file</i> )	EL172021_202309_FileListing	xls	