

Diamond Drilling Underway at the Burns Cu-Au Prospect

- A diamond drilling program is underway at the Burns copper-gold prospect at the Eastern Lefroy project, near Kalgoorlie, Western Australia.
- The initial focus of the program is to expand and advance the Cu-Au mineralisation hosted by magnetite altered diorite porphyry known as the Eastern Porphyry zone.
- Fourteen RC pre collars are already in place that can be selected for diamond tails to test both strike and depth extensions to the outstanding intercept in hole LEFR260 within the Eastern Porphyry that contained:
 - 60m at 5.22g/t Au and 0.38% Cu from 112m down-hole to end of hole, including: 20m at 12.2g/t Au, 0.87% Cu and 1.7g/t Ag from 144m
- The thick high-grade intersection is hosted within fresh magnetite altered porphyry and is a significant new development on the underexplored eastern side of the Burns magnetic anomaly. The mineralisation in LEFR260, hosted by this Eastern Porphyry, is unconstrained
- The initial hole of the program has commenced and is designed to twin and extend beyond RC hole LEFR260. This will provide the fundamental geological information to characterise this high-grade Cu-Au mineralisation, and provide guidance for the drilling of follow up holes within the porphyry host.
- The program, totalling approximately 2000m, is expected to take 2 months to complete.
- Assay results for the earlier Burns diamond drilling and 1m RC resamples are pending.

Lefroy Exploration Managing Director, Wade Johnson said *“the copper-gold mineralised eastern porphyry is part of the broader Burns system which we are yet to define limits to. The commencement of diamond drilling along the eastern porphyry as an initial step to providing foundation data to support developing a geological model to this intriguing Cu-Au system and expanding the extents of the mineralisation. We are very pleased to be back drilling at Burns, in what will be an exciting phase to follow up and extend the stunning gold copper intersection hosted by porphyry in hole LEFR260.”*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce the commencement of a diamond drill program to evaluate the Eastern Porphyry at the Burns copper gold prospect. Burns is within the Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km south east of Kalgoorlie (Figure 1).

The Burns gold copper prospect is situated on the eastern margin of a large interpreted felsic intrusion, termed the Burns Intrusion. The intrusion does not outcrop and is represented by a distinctive annular aeromagnetic and gravity geophysical signature. A maiden 22-hole RC drill program completed in Jan-Feb 2021 intersected a spectacular gold and copper interval in hole LEFR260 containing:

- **60m at 5.22g/t Au and 0.38% Cu from 112m down-hole to end of hole, including:**
 - **20m at 12.2g/t Au, 0.87% Cu and 1.7g/t Ag from 144m**

The broad high-grade mineralisation is hosted within a newly discovered hematite-pyrite-chalcopyrite-magnetite altered porphyry. This porphyry, termed the Eastern Porphyry, is open to the north and south and its eastern extent is unknown (Figure 2). The mineralisation is open at depth.

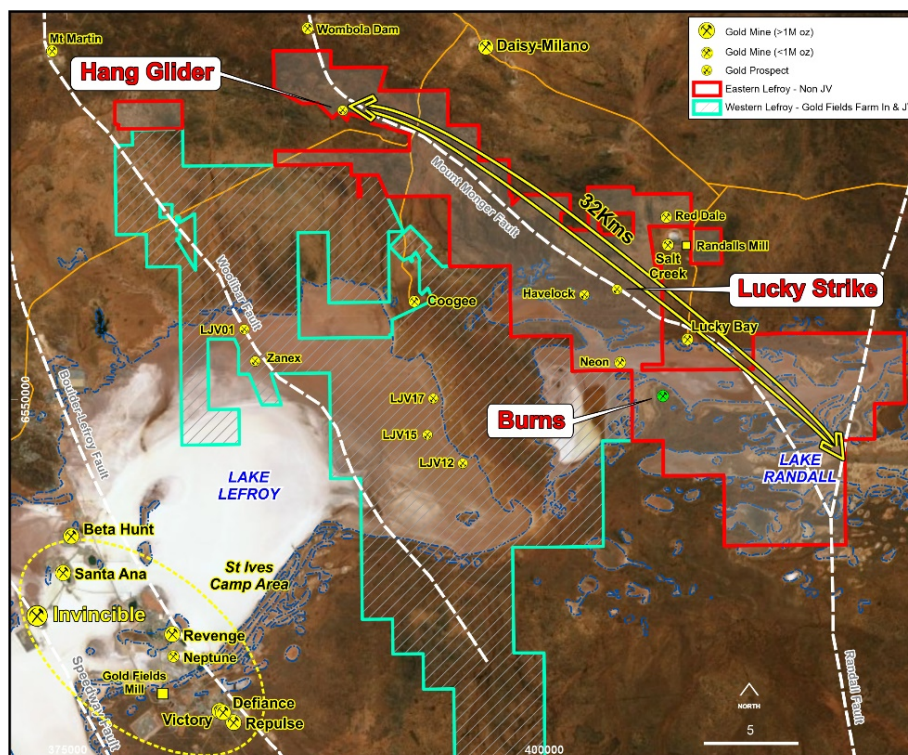


Figure 1 Lefroy Gold Project, highlighting Eastern and Western Lefroy, the location of the Burns prospect and proximity to Lucky Strike. Refer to Figure 2 for Burns drill hole plan.

In March 2021 six angled reverse circulation (RC) holes, designed as pre collars for later diamond drilling, were completed at Burns.

The pre collars were drilled on five consecutive 40m spaced east west sections along strike of the discovery section that hosts LEFR260 (Figure 2). The holes are LEFR 281 to LEFR286 with hole depths ranging from 60m to 204m. Four of the drill sections were pre-existing, with hole LEFR285 drilled on a new 40m step out section to the north.

Each hole intersected the Eastern Porphyry in the interpreted position. This provides confidence in, and support for the geological model. All holes ended in variably altered porphyry, the eastern limit of which is yet to be determined and which extends east beneath Lake Randall.

Hole LEFR283 drilled 40m to the north of discovery hole LEFR260 intersected two zones of magnetite sulphide (pyrite, chalcopyrite) altered porphyry separated by magnetite altered basalt. The lower interval from 120m to 138m (End of Hole) intersected an alteration zone that is visually similar to the 20m high-grade interval in LEFR260. Results are pending for this program.

Drill Program

Fourteen RC pre collared holes are now prepared for diamond drill tails. These are a combination of previous and new RC drill holes, including holes LEFR283 and 286 noted above.

The diamond drill program now underway will be an initial 14-hole test to evaluate the Eastern Porphyry over a 200m strike length on 40m spaced drill sections (Figure 2). The first hole (LEFD004) of the program (Figure 3) will be a diamond hole to twin and extend past the high-grade interval in LEFR260. The twin hole is sited 5m back (west) from LEFR 260 and will have a mud rotary pre collar to approximately 50m, and then tailed by HQ diamond drill core.

The second planned hole will test 50m vertically beneath the mineralisation in LEFR260 using a prior RC drill hole (OBURC025) as a pre-collar. These two holes will provide fundamental geological information to characterise the Cu-Au-Ag mineralisation to guide further exploration at this new setting.

An estimated 2000m of diamond drilling is planned. Drilling will be initially undertaken using one drill rig on a single shift but can be ramped up to double shift subject to availability of drill crews. The 14-hole program is live and allows for flexibility to adjust holes, hole depths and priority dependent on the geology intersected in completed holes. The position of the Eastern Porphyry also gives scope for the Company to utilise older RC holes drilled by the previous holder into the western basalt, that can be used as pre collars.

The program is estimated to take two months to complete. Initial assay results from the program are expected in June.

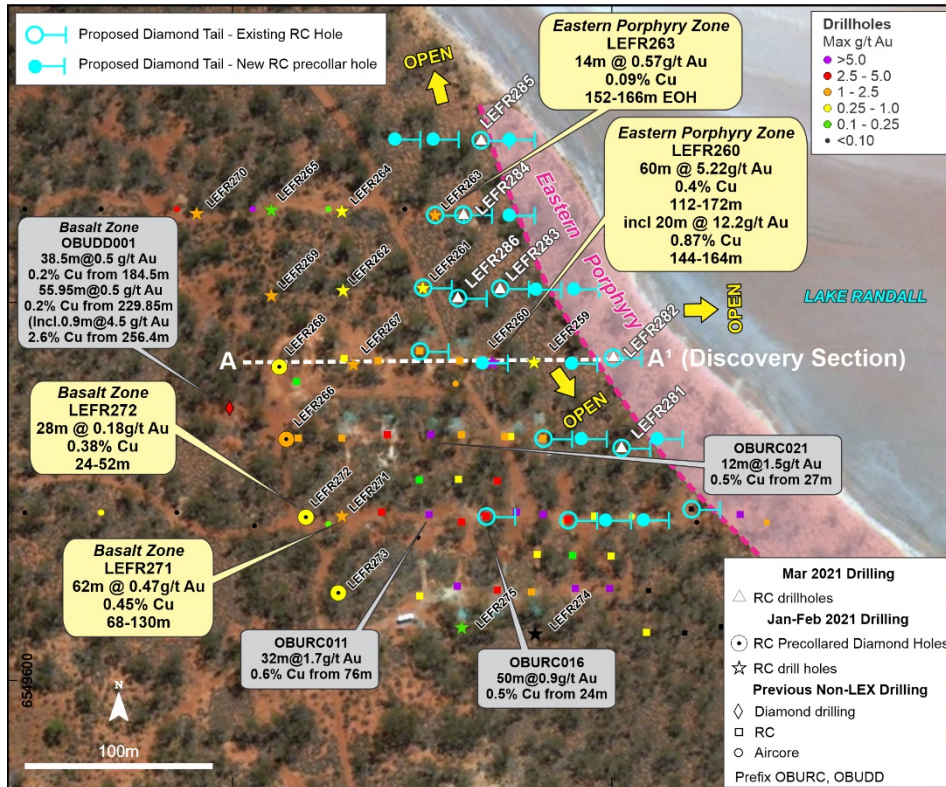


Figure 2 Drill hole plan at the Burns prospect highlighting recent 6 RC pre-collar holes (LEFR 281 to LEFR 286) planned diamond drill tails (blue open circles) relative to LEFR260 and the interpreted extent of the Eastern Porphyry (refer LEX ASX release 9 March 2021 for drill section AA').



Figure 3 Diamond drill rig set up on hole LEFD004 (looking south west)

ASX Announcement

20 April 2021



This announcement has been authorised for release by the Board

Wade Johnson

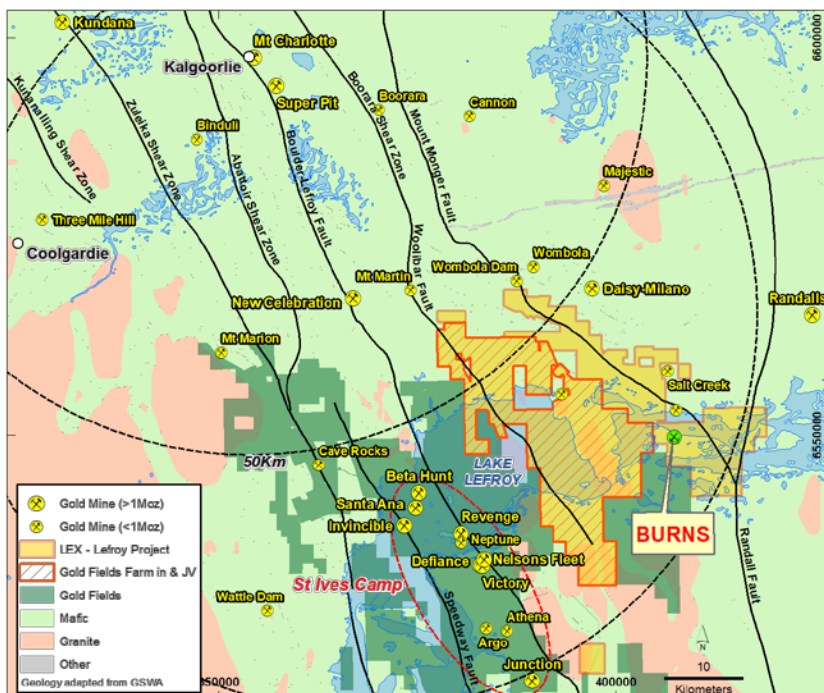
Wade Johnson
Managing Director

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About Lefroy Exploration Limited and the Lefroy Gold Project

Lefroy Exploration Limited is a WA based and focused explorer taking a disciplined methodical and conceptual approach in the search for high value gold deposits in the Yilgarn Block of Western Australia. Key projects include the Lefroy Gold Project to the south east of Kalgoorlie and the Lake Johnston Project 120km to the west of Norseman.

The 100% owned Lefroy Gold Project contains mainly granted tenure and covers 621km² in the heart of the world class gold production area between Kalgoorlie and Norseman. The Project is in close proximity to Gold Fields' St Ives gold camp, which contains the Invincible gold mine located in Lake Lefroy and is also immediately south of Silver Lake Resources' (ASX:SLR) Daisy Milano gold mining operation. The Project is divided into the Western Lefroy package, subject to a Farm-In Agreement with Gold Fields and the Eastern Lefroy package (100% Lefroy owned). The Farm-In Agreement with Gold Fields over the Western Lefroy tenement package commenced on 7 June 2018. Gold Fields can earn up to a 70% interest in the package by spending up to a total of \$25million on exploration activities within 6 years of the commencement date.



Location of the Lefroy Gold Project relative to Kalgoorlie. The Western Lefroy tenement package subject to the Gold Fields joint venture, and Gold Fields tenure are also highlighted

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Notes Specific-ASX Announcements

The following announcements were lodged with the ASX and further details (including supporting JORC Reporting Tables) for each of the sections noted in this Announcement can be found in the following releases. Note that these announcements are not the only announcements released to the ASX but specific to exploration reporting by the Company of previous exploration at Burns at the Lefroy Gold Project.

- Lefroy Exploration Limited-Prospectus: 8 September 2016
- Managing Directors AGM Presentation: 5 December 2016
- Lefroy Expands Tenement Holding & Secures Au-Cu Prospect: 10 December 2019
- June 2020 Quarterly Activities Report: 31 July 2020
- Multiple Gold Trends Confirmed from Eastern Lefroy: 1 September 2020
- Tenement Granted over Burns Au-Cu Prospect: 16 September 2020
- September 2020 Quarterly Activities Report: 29 October 2020
- Drilling Underway at Burns Au-Cu Prospect: 12 January 2021
- Drilling Update-Native copper Intersected at Burns Prospect: 2 February 2021
- Outstanding High-Grade Gold and Copper Mineralisation Intersected at Burns: 23 February 2020
- New Basalt Hosted Gold-Copper Zone Supports Large Burns Mineral System: 9 March 2021
- Exploration Update-Drilling Extends Porphyry at Burns: 26 March 2021

Further information regarding the Burns Prospect has been sourced from the following documents

Independent Geologists Report within the Octagonal Resources Limited Scheme Booklet that was lodged with the ASX on 21 December 2015.

2km Long Copper Anomaly at the Burns Prospect, Western Australia Octagonal Resources Limited, ASX release dated 8 March 2013.

WAMEX report item 110434 Final Report -Government Co-Funded Drilling Grant DAG2015/00559291-Burns Prospect-Exploration Licence E15/1097

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Wade Johnson a competent person who is a member of the Australian Institute of Geoscientists (AIG). Wade Johnson is employed by Lefroy Exploration Limited. Wade has sufficient experience that is relevant to the style of mineralisation and type of deposits under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the JORC Code. Wade Johnson consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears