

Burns Update-Aircore Drilling Underway at Lovejoy Anomaly

- A 100-hole aircore drilling program is underway to evaluate the limits to the footprint of Burns copper-gold system beneath Lake Randall at the Eastern Lefroy project, 70km southeast of Kalgoorlie.
- Drilling has commenced at the priority Lovejoy target located within Lake Randall, and approximately 2000m to the northwest of the Burns Cu-Au system, the site of the baseline diamond and RC drilling earlier in the year.
- The drilling at Lovejoy is part of a larger aircore drilling program in Lake Randall to evaluate the eastern limits of the Burns Cu-Au corridor beneath Lake Randall that is characterised by five magnetic anomalies with signatures similar to Burns that define the corridor
- Lovejoy is characterised by a coincident positive magnetic and gravity anomaly at the northern end of the Burns corridor where a single RC hole drilled on the western edge of the anomaly in October intersected 8m @ 0.22g/t Au & 0.51% Cu & 1.75g/t Ag from 250m to end of hole.
- The aircore program, totalling approximately 5000m, is expected to take 4 weeks to complete. Assay results from this initial program are expected in January 2022.



Lefroy Exploration Managing Director, Wade Johnson said *“The LEX team are excited to be back out drilling at Burns and this time to evaluate the broader extent of the intrusion related system offshore beneath Lake Randall. This includes testing the priority Lovejoy and Kenny’s Dream magnetic anomalies. The drill campaign is the second stage of a strategy to scope out and demonstrate the scale of the geochemical footprint to the intrusion related system and its related mineralisation over a 2000m corridor and extending out into Lake Randall, the limits of which are still yet to be defined”*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to announce that an aircore (AC) drill program is underway to evaluate geophysical targets and the eastern limits of Burns copper gold prospect (Figure 1) over a 2000m corridor beneath Lake Randall. Burns is within the Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km southeast of Kalgoorlie.

At Burns, broad high-grade gold mineralisation is hosted within a newly discovered hematite-pyrite-chalcopyrite-magnetite altered diorite porphyry (refer LEX ASX release 23 February 2021) that intrudes high Mg basalt. The copper and gold mineralisation hosted by both the diorite porphyry, basalt and massive magnetite veins is considered by the Company to be a new style of Au-Cu-Ag mineralisation in the area. The existence of additional mineralisation under Lake Randall (Figure 1 & 2) is entirely possible and the current drill program to expand the system is now underway.

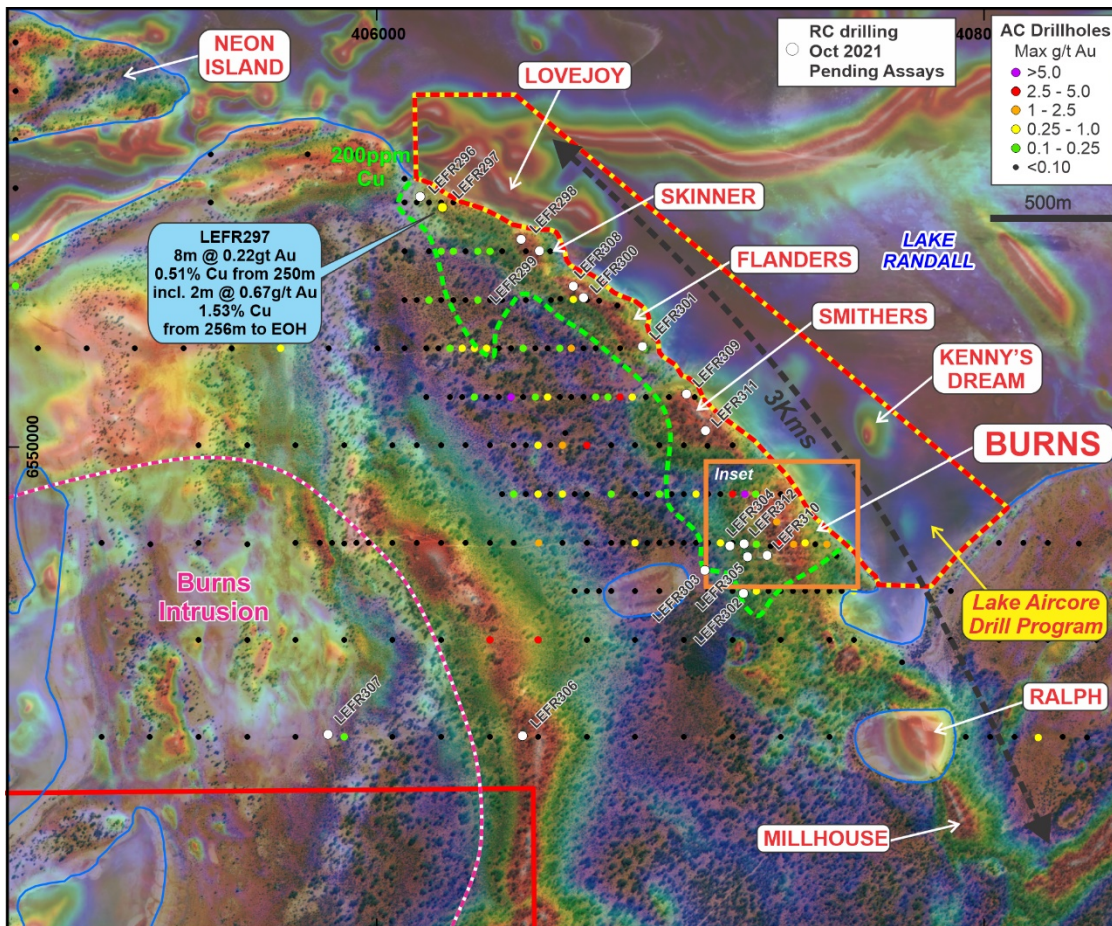


Figure 1 Combined satellite image with transparent TMI RTP aeromagnetic image highlighting the discrete magnetic anomalies (e.g., Lovejoy, Skinner, Flanders) along strike of Burns and the extent of the +220ppm copper anomaly. The inset area refers to the area of RC and diamond drilling at the Burns Au-Cu-Ag prospect. (Warm colours represent rocks beneath the surface with higher magnetite content). Coloured and black dots represent historical AC drill holes. **October 2021 RC holes are depicted.**

Burns Corridor Background

A detailed aeromagnetic survey completed over the broader Burns area in August 2021 defined multiple Burns look alike magnetic anomalies over a 3000m trend (Figure 2), known as the Burns Corridor. The Company interprets that the anomalies represent magnetite alteration zones within and surrounding porphyry dioritic intrusions that are additional to, and similar in style to Burns.

Lovejoy is the largest and northernmost magnetic anomaly and lies beneath Lake Randall (Figures 1 & 2). Lovejoy also has a coincident, positive gravity (dense rock) anomaly (refer Figure 4 LEX ASX release 28 July 2021) of similar geophysical character to Burns.

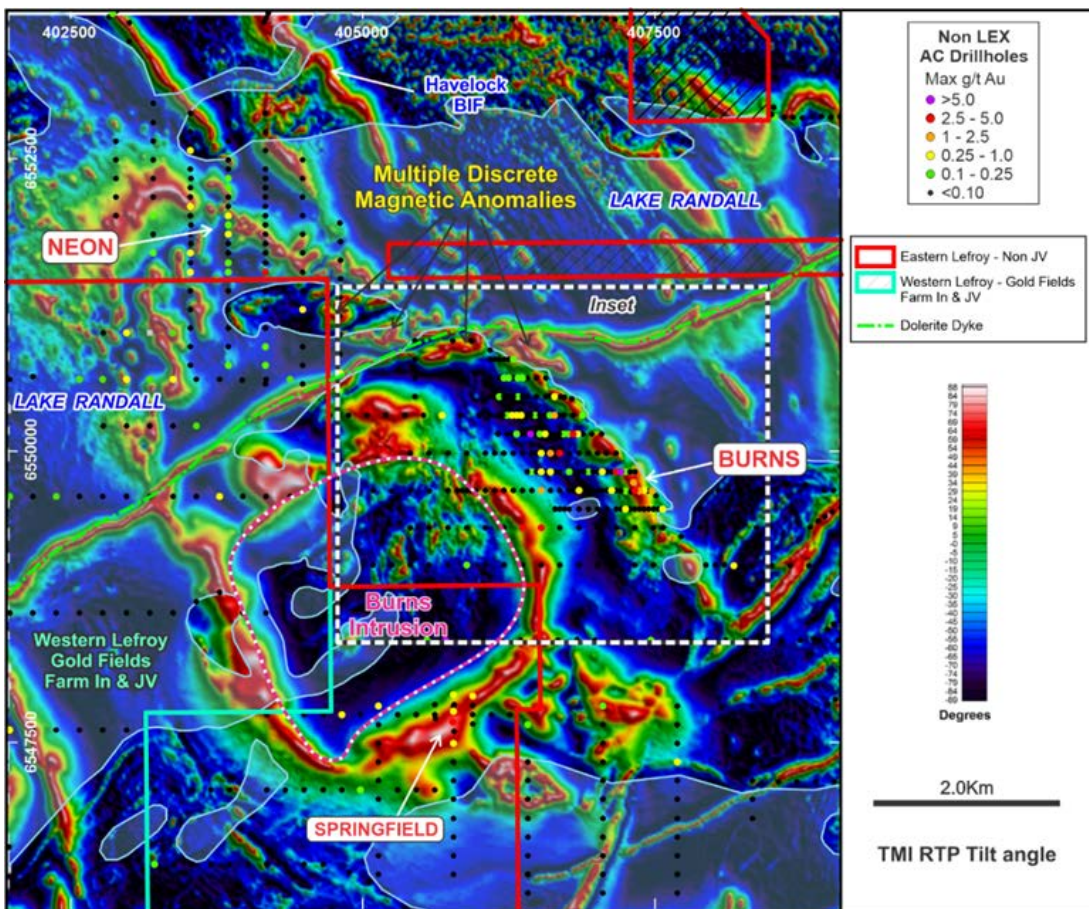


Figure 2 TMI RTP aeromagnetic image showing the full extent of the new aeromagnetic survey and the pronounced annular magnetic anomaly around the Burns Intrusion. Refer Figure 1 for the detail over the Burns prospect magnetic trend (warm colours represent rocks with stronger magnetic character)

That triggered the Company to commence a staged drilling program to assess the limits of the Burns mineral system. Stage 1 of the program involved drilling land-based targets (onshore) using an RC rig, with stage 2 requiring a specialised lake aircore rig to evaluate targets (e.g., Lovejoy) in Lake Randall (offshore).

In October the stage 1 “onshore” RC drilling program was completed. A total of 17 angled holes for 3336m evaluated 6 magnetic anomalies, including six holes at Burns (Figure 1). Nine RC holes evaluated the Smithers, Flanders, Skinner and Lovejoy magnetic anomalies up to 2000m north of Burns all intersected altered diorite and basalt similar to that observed at Burns. The strongest alteration in dioritic porphyry was intersected in holes at Lovejoy and Skinnner. Holes LEFR296 and 297 are located on the western margin of Lovejoy.

Hole LEFR297 intersected significant intervals of hematite silica altered porphyry and associated Cu-Au-Ag mineralisation (refer LEX ASX release 3 November 2021). A fault zone with angular diorite clasts in an intense hematite altered silica matrix including strong fine disseminated magnetite and sulphides was intersected from 228m to 250m. Significant results from hole LEFR297 included

- **10m @ 0.21g/t Au & 0.60% Cu & 2.5g/t Ag from 218m
Including 2m @ 0.41g/t Au & 1.56% Cu & 5.5g/t Ag from 225m**
- **8m @ 0.22g/t Au & 0.51% Cu & 1.75g/t Ag from 250m to EOH
Including 2m @ 0.67g/t Au & 1.53% Cu & 5.0g/t Ag from 256m to EOH**

The hole, located on the edge of lake Randall (Figure 1) was abandoned at 258m due to high flows of ground water. The last 2m of the hole ended in strong copper mineralisation hosted by altered diorite porphyry and basalt with associated gold and silver credits. Importantly interpretation of the whole rock geochemistry from this single hole at Lovejoy has a similar character to that observed at the Burns anomaly. Results for the remaining 16 RC holes of this program are expected in December 2021

Aircore Drill Program

The general association of the Au-Cu-Ag mineralisation at Burns, with magnetite in both basalt and diorite porphyry rocks, provides the rationale for a strong, first order exploration program focussed on the newly found magnetic anomalies.

The Stage 2 aircore drilling program to evaluate the Lovejoy and Kenny’s Dream magnetic anomalies and the eastern extent of Burns all located in Lake Randall has commenced. The program will evaluate multiple targets beneath Lake Randall and filling the geological knowledge gap immediately to the east of the Burns anomaly (baseline section).

The priority target is the Lovejoy magnetic anomaly, but also the smaller discrete Kenny’s Dream magnetic anomaly (Figure 1). Lovejoy is considered by the Company to be a priority target given it has coincident magnetic-gravity anomaly (LEX ASX release 24 September 2021). The results from hole LEFR297 that just intersects the edge of the Lovejoy anomaly provides confidence that additional altered and mineralised diorite can be discovered beneath Lake Randall.

The aircore drilling is planned on a nominal 160m line spacing with vertical holes at 80m centres extending from Lovejoy in the north to east of Burns to the south. A total of 100 holes have been planned with an estimated average depth of 50m, for a total of 5000m to be drilled. The drilling is designed to test an area extending 700m from the shoreline out into Lake Randall and using a specialised Lake aircore drill rig. The program is expected to take at least 4 weeks to complete, with assay results due in January 2022.

The combined results from this AC and the October RC drill program will provide the broad geochemical and geological baseline framework over the 3000m trend to focus more detailed drill evaluation in CY2022.

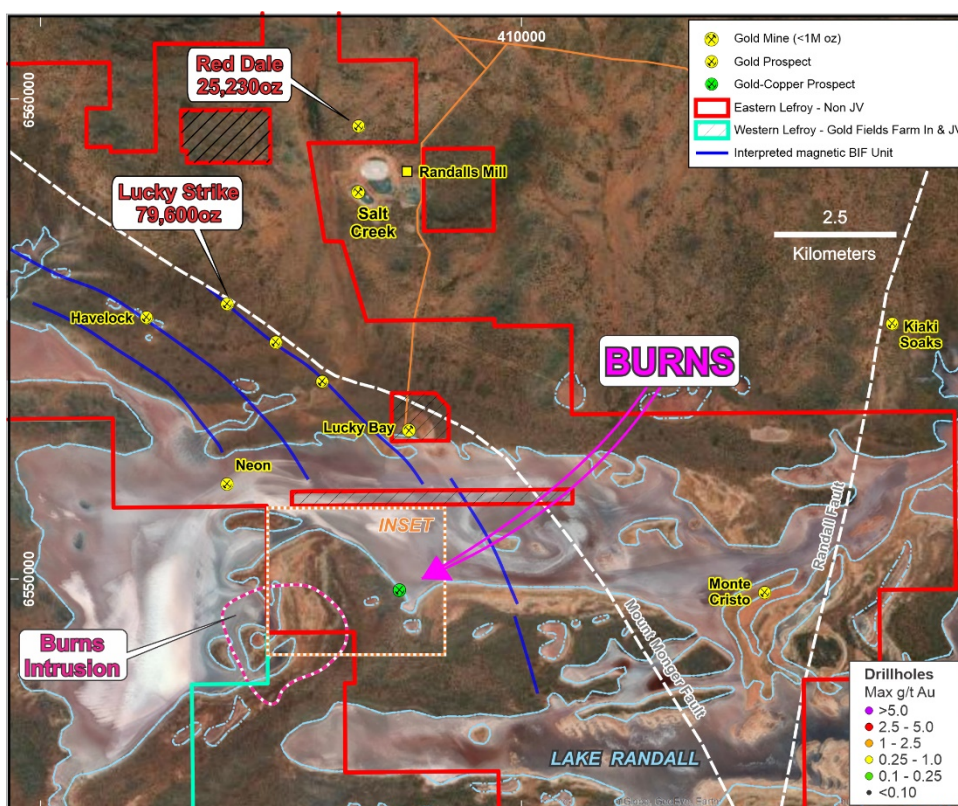


Figure 3 Location of Burns within the Eastern Lefroy tenement package and the extent of Lake Randall. Burns is located approximately 5km south of the Randalls Mill operated by Silver Lake Resources and 7km south east of the wholly owned Lucky Strike gold resource. Inset refers to extent of Figure 1.

This announcement has been authorised for release by the Board



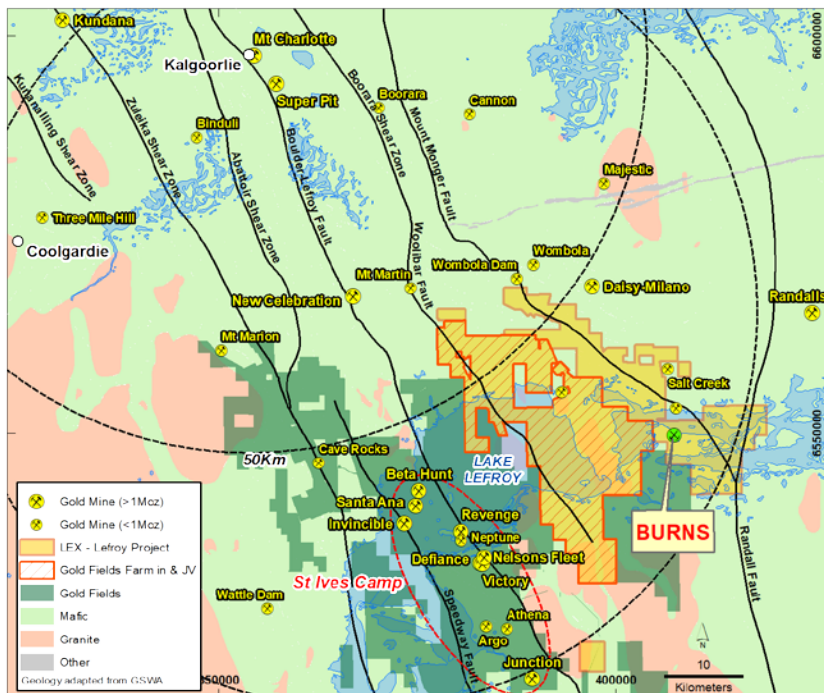
Wade Johnson
Managing Director

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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 southeast 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 Expands Tenement Holding & Secures Au-Cu Prospect: 10 December 2019
- 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
- Diamond Drilling Underway at the Burns Cu-Au Prospect: 21 April 2021
- Resampling of RC holes at Burns confirms and better defines recent Copper Gold intersections: 27 April 2021
- Drill Results Extend Copper Gold Zones at Burns: 29 April 2021
- Multiple Intervals of Altered Porphyry Intersected at Burns: 3 May 2021
- Burns Success Continues-55m vertical depth extension and more strong mineralisation established: 13 May 2021
- Burns Continues to Grow-deeper-wider and a new zone: 25 May 2021
- Burns Drilling Update-first hole on 40N section confirms significant mineralisation extends to the north: 18 June 2021
- Exploration Update-RC drilling commences at the Burns Cu Au prospect: 20 July 2021
- Burns Update-Cu-Au mineralisation confirmed on 0N section, step out drilling extends system: 2 August 2021
- June 2021 Quarterly Activities Report: 28 July 2021
- Exploration Update-Advancing the Burns and Coogee South Prospects: 18 August 2021
- Results from 40N section Further Enhance Burns Cu-Au System: 21 September 2021
- Drill testing of multiple magnetic targets underway at Burns: 5 October 2021
- Burns Update-Drill Results continue to support larger Cu-Au-Ag system: 3 November 2021

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