

Exploration Update- Advancing the Burns & Coogee South prospects

Burns Cu-Au prospect

- Assay results for 3020 samples from four diamond holes and nine RC holes completed at the Burns prospect in July 2021 are still pending.
- Three of the five diamond holes are located on the 40N section, and one hole is on the 40S section. The nine RC holes successfully extended the Burns mineral system to the north and south. A single hole was also drilled at Smithers and confirmed the same alteration signature as observed at Burns. Batches of assay results are expected from late August and into September.
- Planning for more step out RC drilling to further expand the system and map out the extent of the eastern porphyry is underway, with fieldwork scheduled to commence in September.
- A detailed aeromagnetic survey covering the entire Burns intrusive complex, has recently been completed, with the data now being processed. Full results are expected at the end of August.
- The images from the new survey will define targets with similar magnetic responses up to 2500m north of the Burns prospect and into Lake Randall. These will be evaluated in Q4/21.

Coogee South prospect

- The Coogee South area was excised from the Western Lefroy Project in June 2021.
- A 150-hole aircore drill program will commence in late August to evaluate a 1500m long corridor defined from historical drilling directly along strike from the Coogee open pit.
- A detailed aeromagnetic survey covering Coogee South has recently been completed with the final data being processed. The new data will refine the scheduled drill program and facilitate the generation of additional targets external to a buried intrusion that has a similar magnetic response to Burns.

Lefroy Exploration Managing Director, Wade Johnson said *“the drill ready targets in our portfolio provide us with optionality while we wait on assay results from the diamond and RC drill holes at Burns. Coogee South is one of those priority target areas and we are excited to be soon drilling our priority target outlined in our 2016 prospectus.”*

Lefroy Exploration Limited (ASX: LEX) (“Lefroy” or “the Company”) is pleased to provide an update to the ongoing work program at the priority Burns Cu-Au Prospect and the recently acquired Coogee South property. Burns and Coogee South are within the wholly owned Eastern Lefroy tenement package, which is part of the wholly owned greater Lefroy Gold Project (LGP) located 50km southeast of Kalgoorlie (Figure 1).

The Burns copper gold prospect is situated on the eastern margin of a large interpreted felsic intrusion, termed the Burns Intrusion. The intrusion does not outcrop but features a distinctive annular aeromagnetic and gravity geophysical signature. The Company considers there is a genetic relationship between the Burns intrusions, so this further work is intended to establish the association between the larger Burns intrusion and the diorite porphyry intrusions intersected at the Burns prospect.

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 at Burns. This porphyry, termed the Eastern Porphyry, is open to the north and south. The copper and gold mineralisation hosted by both the diorite porphyry, basalt and now massive magnetite is considered by the Company to be a new style of mineralisation in the area. The land position dominated by Lefroy (Figure 1).

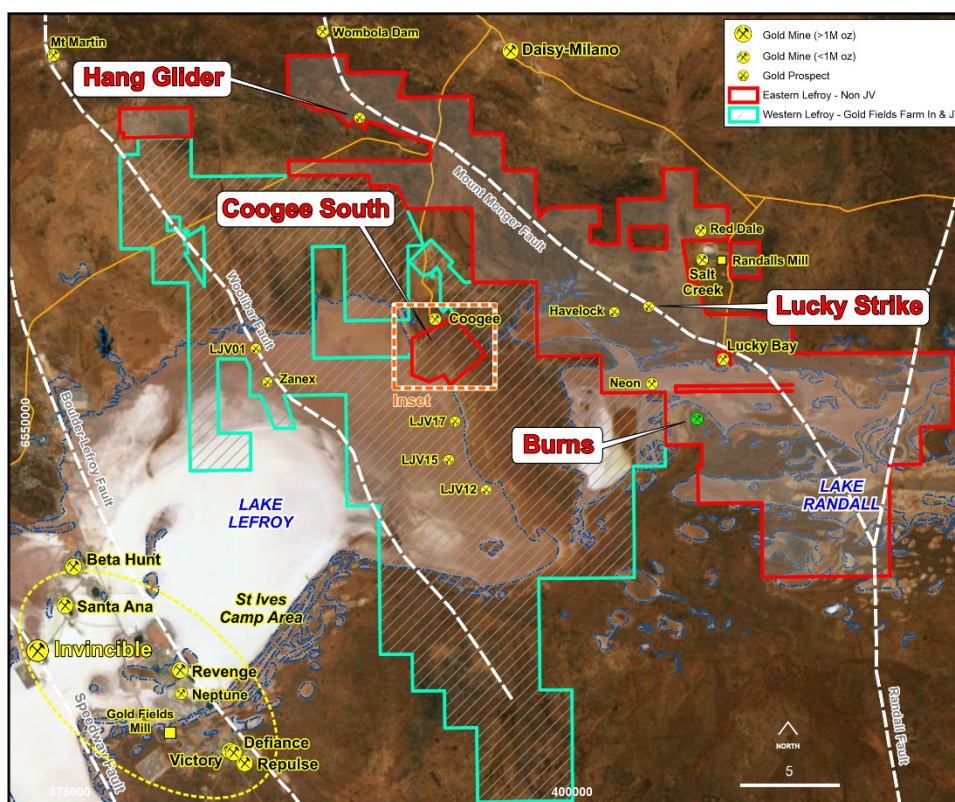


Figure 1 Lefroy Gold Project with locations of Burns and Coogee South. Refer to Figure 2 for Burns drill hole plan and Figure 5 for Coogee South plans

Burns Update

A fourteen-hole diamond drill program commenced on 20 April 2021 to evaluate the Eastern Porphyry over a 200m strike length on three 40m spaced drill sections (Figure 2). Five diamond holes were drilled on the zero north or baseline section. The summary geology and results from the first four diamond holes were reported to the ASX on 2 August 2021.

The results from five of the diamond drill holes are still pending. One hole (LEFRD282) is from the zero-north section, three holes (LEFRD283, 261, 262) are from the 40N section and a single diamond hole (LEFD005) is from the 40S drill section (Figure 2). Assay results (815 samples) for these holes are expected to be received in batches over the next 4 to 6 weeks.

In late July 2021 nine reverse circulation (RC) holes were completed at Burns to evaluate both strike extensions to the Eastern Porphyry and strike and down dip extensions to the Cu-Au mineralisation in the western basalt. Nine of 12 planned holes were completed during a two-week window of drill rig availability. A total of 2328m of drilling tested 4 targets, including a single hole (LEFR294) testing the Smithers (Figure 2) aeromagnetic anomaly (refer LEX ASX release 2 August 2021).

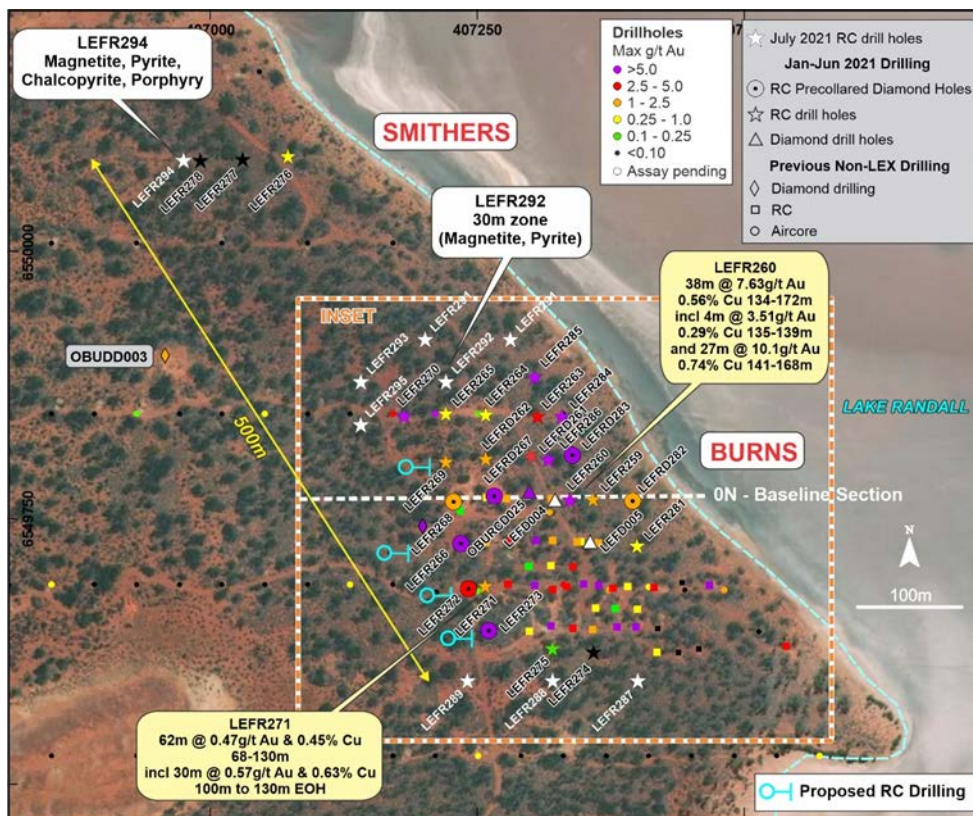


Figure 2 Burns and Smithers drill hole plan highlighting July RC drilling program (white stars) relative to the zero north baseline section

Four holes (LEFR290, 291, 292, 293) evaluated the northern extension of the Burns system (Figure 3). Hole LEFR290, a 40m step out to the north intersected a 101m downhole interval of altered eastern porphyry including a 10m interval containing intense magnetite-pyrite alteration. The porphyry is open to the north. Hole LEFR 292, an 80m step out north from LEFR285 intersected a 30m down hole interval of massive magnetite containing up to 20% pyrite alteration in basalt. This is one of the thickest intersections of magnetite containing coarse pyrite drilled at Burns to date and is open to the north (refer Figure 10 LEX ASX release 2 August 2021).

All 2205 samples from this 9-hole program are at the laboratory for analyses. Assay results are not expected until late September 2021, due to the delay with assay turnaround.

The association of the magnetite alteration and veining with Au-Cu mineralisation at Burns provides an important physical rock parameter (magnetics) that can be used to locate and target additional Burns style systems external to the current focused drill area.

A detailed 25m line spaced aeromagnetic survey covering the entire extent of the Burns Intrusion has recently been completed (Figure 3). The data, when processed, will provide refined imagery to enhance existing data and better define the magnetic anomalies to the north of the Burns prospect both on land and on lake Randall (Figure 4).

The newly acquired aeromagnetic imagery will support planning of a broader step out RC drill program to the north of Burns that is scheduled for commencement in September 2021.

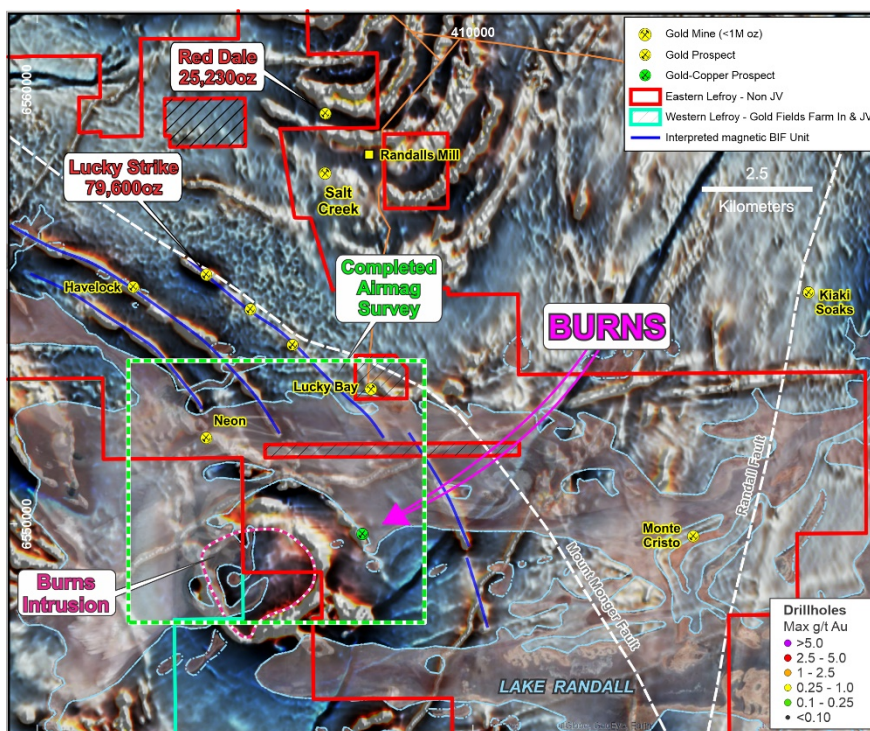


Figure 3 Grey scale aeromagnetic image showing the extent of the aeromagnetic survey

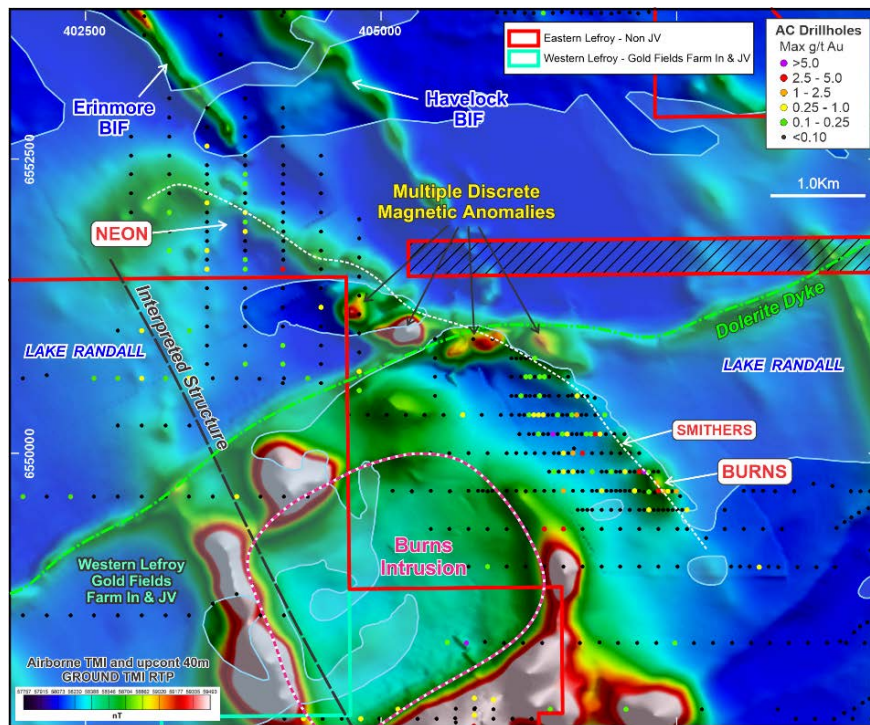


Figure 4 TMI aeromagnetic image prepared from previous surveys over Burns, highlighting positive (warm colours) anomalies north of Burns

Coogee South Update

The Coogee South Prospect is located immediately along strike to the south of the high-grade (+5g/t Au) Coogee open pit (Figure 5), which was successfully mined by Ramelius Resources Limited (“Ramelius” and ASX: RMS) during 2014. Coogee South was excised from the Western Lefroy Farm in and JV and returned as a 100% owned project to the Company on 18 June 2021 (refer LEX ASX release 2 August 2021).

The Company believes that the Coogee deposit is part of a larger gold system that surrounds a buried felsic intrusion (Figure 5). Further evidence of this is the discovery of a new occurrence of gold and copper mineralisation by Victory Mines Limited (“Victory” and ASX:VIC) in recent reverse circulation (RC) drill holes north and south of the Coogee open pit (VIC ASX release 11 May 2021).

The priority target for LEX at Coogee South is the area immediately along strike to the south of the Coogee open pit, where RC drilling in 2006 recorded a best intersection of 17m at 1.67g/t Au from 99m in CSRC03 (Figure 5). This target remains open down dip and along strike. The existing drilling results are supported by a gold anomaly defined by rotary air blast (RAB) drilling completed in the mid 1990’s that extends for approximately 1500m to the south of the VIC-LEX tenement boundary.

The Company considers Coogee South to be a high priority, drill ready gold target. This prospect was the priority target in the Company's 2016 Prospectus. The occurrences in earlier drilling of gold and copper mineralisation rimming a granitic intrusion (Figure 5), with associated magnetite alteration, are encouraging indicators with similarities to the nearby Burns prospect.

A 150-hole air core drilling program is scheduled to commence on 25 August. The program is designed to test a 1500m corridor directly south of the Coogee Open pit with close spaced (80m line & 40m centres) drilling (Figure 5). The program is expected to take 3 weeks to complete

The Company has also recently completed a detailed 25m line spaced aeromagnetic survey over the Coogee South Prospect. This will provide enhancement of the magnetic features and anomalies rimming the granitic intrusion to assist in outlining further targets with a magnetic character similar to that observed at Coogee.

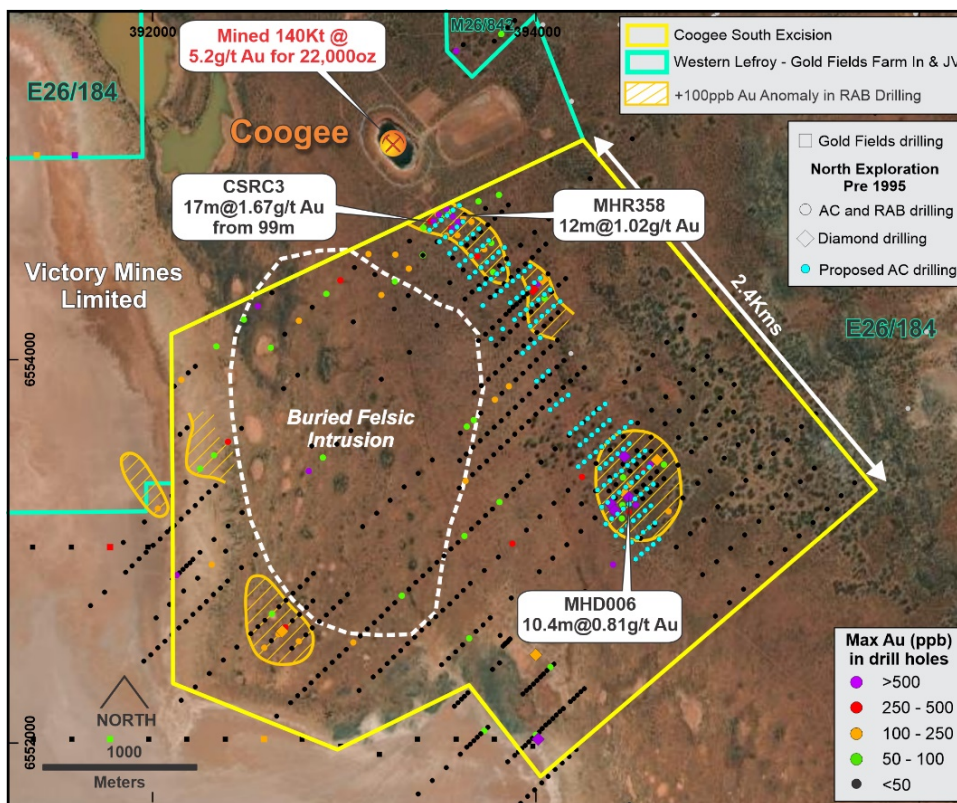


Figure 5 Satellite image showing the extent of Coogee South, the Coogee open pit and the planned aircore drill program

This announcement has been authorised for release by the Board



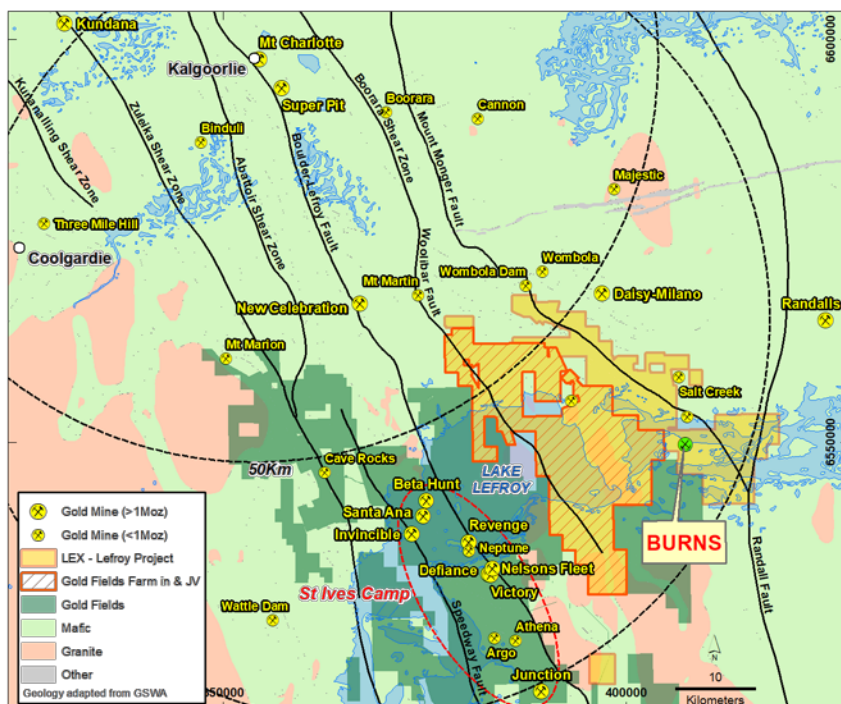
Wade Johnson
Managing Director

END

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 near 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

For Further Information please contact:

Wade Johnson

Managing Director

Telephone: +61 8 93210984

Email: wjohnson@lestroyex.com

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 and Coogee South at the Lefroy Gold Project. Exploration results by the previous explorer that refer to the Burns prospect are prepared and disclosed by the Company in accordance with the JORC 2004 code. The Company confirms that it is not aware of any new information or data that materially affects the information included in this market announcement.

- 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
- 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
- Shortfall Cash Payment Strengthens Funding of Burns Exploration Program: 25 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 RC drilling expands system: 2 August 2021
- Gold Fields to spend additional \$15 million to earn 70% interest in Western Lefroy: 2 August 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