ASX Announcement

ASX: LEX



Drilling underway at Lucky Strike Gold Project

26 February 2025

HIGHLIGHTS

- Resource infill drilling has commenced at Lucky Strike
- A 3000 metre RC drilling program is targeting the top 40 50m to refine and extend the gold resource model.
- Drilling outcomes will support BML Ventures to optimize final pit shell designs and advance mine planning.
- Environmental surveys are scheduled for March at Lucky Strike to facilitate the submission of a Clearing Permit Application in April.

Lefroy Exploration Limited ("Lefroy" or "the Company") (ASX: LEX) is pleased to announce that it has commenced a resource infill and extensional drilling program at the Lucky Strike Gold Project ("Lucky Strike"). This program follows rapidly on the heels of a profit-sharing mining agreement entered into between the Company and BML Ventures Pty Ltd (BML) to mine the Lucky Strike Gold Project (refer ASX release 12 February 2025), which contains an MRE of 1.27Mt @ 1.95g/t Au for 79,600 ounces (Indicated 0.70Mt @ 1.93g/t Au for 43,400 oz. Inferred 0.57Mt @ 1.97g/t Au for 36,200 oz).

LEFROY CEO, GRAEME GRIBBIN, COMMENTED:

"The commencement of drilling kickstarts what will be a very busy period for the Company and its mining partner BML as we embark on our pathway to mining at Lucky Strike. This shallow RC drilling program will allow Lefroy to refine its resource and geological model with the additional outcome of enabling BML to finalise mine plan designs."

"With drilling underway, assay results due in March, finalised mine plans scheduled for April and mine permitting and planning underway, we are rapidly building momentum towards our goal of commencing mining operations at Lucky Strike in the second half of 2025."

1





Figure 1: Drilling at Lucky Strike

DRILLING PROGRAM DETAILS AND KEY OBJECTIVES

A shallow resource infill and extensional reverse circulation (RC) drilling program is now underway, with the program specifically designed to:

- 1. Refine the Company's existing geological model.
- 2. Infill the existing resource model and to test for extensions of the mineralisation; and
- 3. Allow BML to refine pit shell optimisation designs and complete final mine design planning.

The program, currently underway, will incorporate approximately 3000m of drilling, with average hole depths between 40 – 50m. The program is designed to refine the shallow part of the geological model within 50m of surface.

Additionally, the program also seeks to target the margins of the current resource model, to test for potential shallow resource extensions. The planned drillhole collar locations are shown in Figure 2.

High grade mineralisation at the Lucky Strike gold deposit is concentrated around the hinge zones of a series of a tight folds within the host banded iron formation (BIF), with mineralisation demonstrating a shallow plunge to the south.



The main BIF zones that host mineralisation at Lucky Strike are represented by the light blue interpreted envelopes (projected to surface) and represented in Figure 2.

Prior to the commencement of this drilling program, BML undertook extensive preliminary pit optimisation works, with current pit outlines shown in Figure 2.

This shallow RC drilling program, predominantly targeting the northern and central areas, will assist BML in further derisking the project, allowing finalisation of pit shell designs and assessing the potential for shallow mineralisation to extend along strike.

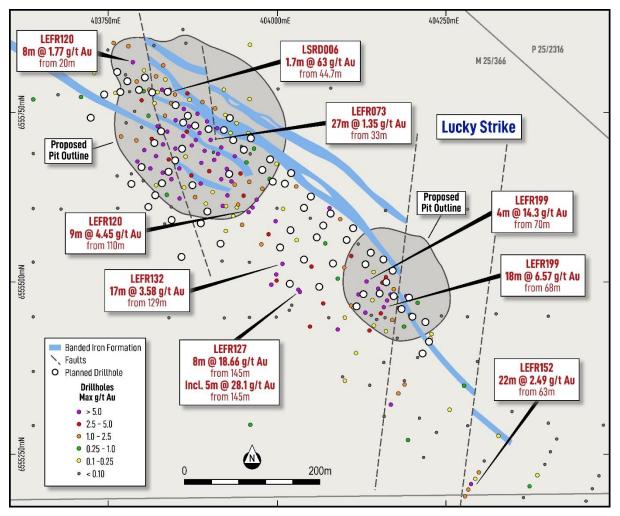


Figure 2: Lucky Strike Planned Drill collar locations and Preliminary Pit outlines (Plan view surface projection)

An additional view of the preliminary pit shell designs, overlaid on the current resource block model, along with a design of the current drilling program is shown in Figure 3.

The current resource block model for the Lucky Strike Project (refer ASX release 20 May 2020) contains a mineral resource estimate (MRE) of 1.27Mt @ 1.95g/t Au for 79,600 ounces (Indicated 0.70Mt @ 1.93g/t Au for 43,400 oz. Inferred 0.57Mt @ 1.97g/t Au for 36,200 oz).



TIMELINE OF EVENTS AND NEXT STEPS

The Company anticipates drilling to be completed in early March with drill results to be returned by mid-to late March.

Following this, the Company will update its geological and resource models, with finalised pit optimisations and mine plan designs to be undertaken by BML in late March and into early April.

It is anticipated that following the completion of final mine plan designs, guided by this current round of drilling, BML and Lefroy will then agree on final project budgets. Importantly, as confirmed with the execution of the Profit-Sharing Agreement (refer ASX release 12 February 2025), BML with fund all up-front capital and operating costs required to advance the Lucky Strike Gold Project.

BML has also secured an environmental consultant to undertake an autumn fauna and flora survey at Lucky Strike, scheduled for March, with a report to be generated from this survey in April.

Deliverables from this survey will enable BML, on behalf of the Company, to submit a Clearing Permit Application (in April) in support of future mining activities at Lucky Strike.

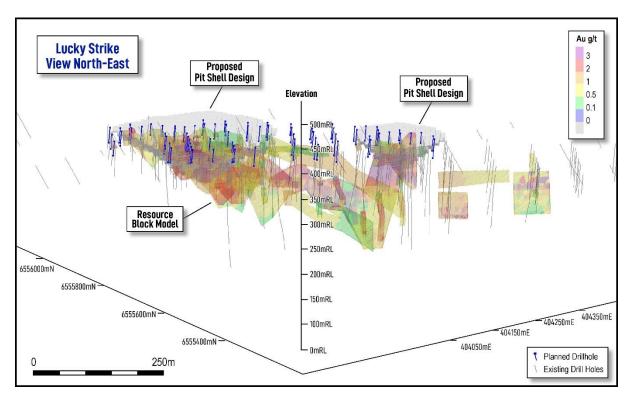


Figure 3: Lucky Strike Oblique View (Looking towards the North-East)



ABOUT THE LUCKY STRIKE GOLD PROJECT

Lefroy first commenced drilling at Lucky Strike in 2016 with several air core and reverse circulation drilling programs between 2016 to 2019 defining a gold mineralised trend spanning a 3km strike length. Subsequent RC drilling led to Lefroy delivering a maiden Mineral Resource Estimate (MRE) of 1.27Mt @ 1.95g/t Au for 79,600oz of gold (refer ASX announcement 20 May 2020).

Several significant high grade gold intersections within 150m vertical depth from surface have been intersected at the Lucky Strike Gold Project (refer ASX announcement 26 February 2020) with notable significant gold intersections including:

- 8m @ 18.66g/t Au from 145m, including 5m @ 28.1g/t Au from 145m (LEFR217)
- 22m @ 2.49g/t Au from 63m (LEFR152)
- 3m @ 7.79g/t Au from 130m (LEFR190)
- 11m @ 3.48g/t Au from 170m (LEFR216)

The mineral resource estimate at the Lucky Strike Project is located on a granted mining lease (M25/366) and is located 5km west of the Mt Monger Road and haulage corridor.

Additionally, Lucky Strike is within close trucking distance to numerous gold milling facilities (Figure 4) with particular close proximity to the Randalls Mill owned by Vault Minerals Ltd (ASX:VAU) and the Lakewood Mill recently acquired by Black Cat Syndicate Ltd (ASX:BC8) from Westgold Resources Ltd (ASX:WGX) (refer to WGX ASX Announcement 25 February 2025).

- ENDS -

This announcement has been authorised for release by the Board of Directors.

noume Gulter

Graeme Gribbin CEO

For further information please contact:

INVESTORS

Graeme Gribbin – CEO Lefroy Exploration E. ggribbin@lefroyex.com P. +61 8 9321 0984 More details: www.lefroyex.com

MEDIA

Fiona Marshall White Noise Communications E. <u>fiona@whitenoisecomms.com</u> P: +61 400 512 109

LEFROYEX.COM | ASX: LEX

5



ABOUT LEFROY EXPLORATION LIMITED

Lefroy Exploration Limited (ASX:LEX) is an active West Australian exploration company focused on developing its growing gold and critical minerals projects. The Company's portfolio of high-quality projects includes the Lefroy Project (Figure 4), located in the heart of the world-class Kalgoorlie and Kambalda gold and nickel mining districts and the Lake Johnston Project 120km west of Norseman.

The Lefroy Project is a contiguous land package of 635km² with a growing mineral resource inventory of greater than 1 million ounces of gold, 58,000 tonnes of contained copper and 14,780 tonnes of contained nickel, (refer to Table 1).

In May 2023, Lefroy signed a Mineral Rights Agreement with title holder Franco-Nevada Pty Ltd, to acquire the mineral rights to Hampton East Location 45 (Location 45) (Refer ASX release 23 May 2023). Location 45 is a freehold property, located within 25km of Kambalda and 35km southeast of Kalgoorlie. The property hosts the historic Mt Martin gold mine, which has historically produced approximately 200,000 ounces of gold grading at 2.8g/t and which includes an existing resource estimate of 439,000 oz gold (9.29Mt @ 1.47g/t Au) (refer to ASX release 10 October 2024).

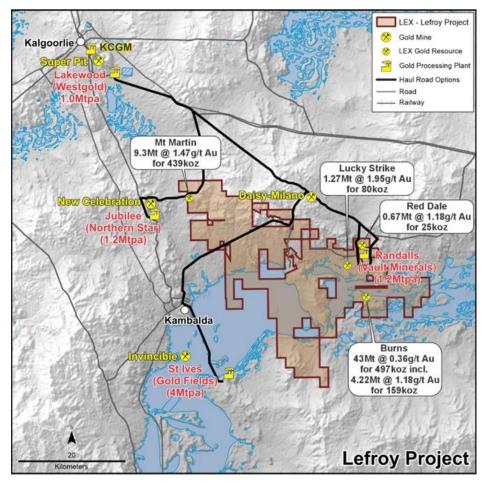


Figure 4: Regional location map of the Lefroy Project

6



SUPPORTING ASX ANNOUNCEMENTS

The following announcements were lodged with the ASX and further details (including supporting JORC Tables) for each of the sections noted in this announcement can be found in the following releases. The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements. In the case of all Mineral Resource Estimate's (MRE), the Company confirms that all material assumptions and technical parameters underpinning the estimates continue to apply and have not materially changed.

- Outstanding Results Reinforce Lucky Strike Potential: 26 February 2020
- Maiden Lucky Strike Resource Estimate: 20 May 2020
- Half a million ounces of gold in Burns Central maiden resource: 4 May 2023
- Strategy to focus on Gold Development and Exploration: 23 February 2024
- High Grade Shallow Resource to Unlock Value at Burns Central: 3 October 2024
- Lefroy builds near-surface gold resources at Mt Martin: 10 October 2024
- South-West Connect Investor Presentation October 2024: 16 October 2024
- Commercialising resources to advance exploration targets: 23 Oct 2024
- \$3.3M raised in oversubscribed placement to commercialise resources and target new discoveries: 28 October 2024
- Lefroy signs Agreement with BML Ventures to advance development of the Lucky Strike gold deposit: 18 December 2024
- Lefroy executes Agreement with BML Ventures to mine the Lucky Strike gold deposit: 12 February 2025

COMPETENT PERSON STATEMENT

The information in this announcement that relates to exploration targets and exploration results is based on information compiled by Graeme Gribbin, a competent person who is a member of the Australian Institute of Geoscientists (AIG). Mr Gribbin is employed by Lefroy Exploration Limited. Mr Gribbin 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. Mr Gribbin consents to the inclusion in this announcement of the matters based on his work in the form and context in which it appears.



FORWARD LOOKING STATEMENTS

This announcement contains "forward-looking statements". Forward-looking statements are often, but not always, identified by the use of words such as "seek", "anticipate", "believe", "plan", "expect", "predict", "forecast", "estimate", "target" and "intend" and statements that an event or result "should", "could", "may", "will" or "might" occur or be achieved and other similar expressions. Forward-looking statements are subject to business, legal and economic risks and uncertainties and other factors that could cause actual results to differ materially from those contained in forward-looking statements. Forward-looking statements including estimates or projections as to events that may occur in the future (including projections of revenue, expense, net income and performance) are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance and may or may not occur. The statements involve known and unknown risks, uncertainties and other factors associated with LEX and the mining exploration industry such as resource risk, environmental and regulatory risks, metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates and operational risks. Many of risks these are beyond the control of LEX. It is believed that expectations reflected in the statements are reasonable but they may be affected by market conditions and a range of other variables which could cause actual results or trends to differ materially from those stated.

	Table 1: Total Indicated and Inferred Mineral Resources (small discrepancies may occur due to the effect									
	of rounding)									
e	nic Gold Style									

Т

Orogenic Gold	Orogenic Gold Style										
	Indicated				Inferred		Total Resource				
Deposit	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz	Mt	Au (g/t)	Oz		
Red Dale	0.64	1.21	24,660	0.03	0.60	570	0.67	1.18	25,230		
Lucky Strike	0.70	1.93	43,400	0.57	1.97	36,200	1.27	1.95	79,600		
Mt Martin	5.60	1.40	2.47,500	3.69	1.61	191,500	9.29	1.47	439,000		
TOTAL	6.94	1.41	315,560	4.29	1.66	228,270	11.23	1.51	543,830		

Porphyry Gold-Copper Style														
	Indicated					Inferred					Total Resource			
Deposit	Mt	Au (g/t)	Cu (%)	Au (Oz)	Cu (t)	Mt	Au (g/t)	Cu (%)	Au (Oz)	Cu (t)	Mt	Au (g/t)	Au (Oz)	Cu (t)
Burns Central	32.31	0.38	0.16	394,308	50,253	10.65	0.3	0.08	103,165	8,047	42.96	0.36	497,472	58,300
Total	32.31	0.38	0.16	394,308	50,253	10.65	0.3	0.08	103,165	8,047	42.96	0.36	497,472	58,300

Nickel										
	Indicated				Inferred		Total Resource			
Deposit	tonnes	Ni (%)	Ni metal	tonnes	Ni (%)	Ni metal	tonnes	Ni (%)	Ni metal	
Goodyear	-	-	-	392,000	3.78	14,780	392,000	3.78	14,780	
TOTAL	-	-	-	392,000	3.78	14,780	392,000	3.78	14,780	