

ASX: LM8

2D SEISMIC TRIAL KICKS OFF AT LONG SOUTH/SILVER LAKE "GAP"

10 MARCH 2023

KEY POINTS

- Long South/Silver Lake "Gap" highly prospective ground between two of Kambalda's largest nickel producing deposits
- 2km² area where no deep diamond drilling has ever taken place
- 2D seismic trial commenced on key traverse abutting Long Operation (owned by ASX:MCR)
- Prelude to full 3D seismic survey targeting southerly extensions of multiple prospective nickel channels including Victor (McLeay) & Long (Moran)

Lunnon Metals Limited (**ASX: LM8**) (the **Company** or **Lunnon Metals**) is pleased to provide an update on activities at the Silver Lake-Fisher (**SLF**) project which, when combined with the Foster-Baker project, represents a doubling of its nickel rights tenure at the Kambalda Nickel Project (**KNP**).



Figure 1: 2D seismic trial underway on the surface of Lake Lefroy.

Managing Director, Ed Ainscough, commenting said: "We are pleased to finally get on the ground in this highly prospective corridor. It's early days obviously but the nickel mines surrounding the "Gap" were some of the biggest nickel producers that Kambalda has seen. Lunnon Metals is embarking on a methodical, technically driven exploration programme looking to maximise our chances of making a significant discovery in an area that has never been tested before".

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SEISMIC SURVEY: LONG SOUTH / SILVER LAKE "GAP"

As forecast in the December 2022 quarterly report, the Company has now commenced the trial of a "*mini vibro-seis*" system mounted on a lake 4 x 4 "Mule" vehicle (see Figure 1 above). The trial will attempt to survey two, 2D seismic lines on the surface of Lake Lefroy, to the immediate east of the historical Silver Lake mine and to the immediate south of the Long Operation, host to the Victor (McLeay) and Long (Moran) channels.

Between these three main known nickel channels approximately **13.5 million tonnes** of past ore production generated over **465,500 tonnes of nickel metal**¹ at an average grade of **3.45% Ni**.



Figure 2: Plan view of the Silver Lake-Fisher project highlighting the location of the high-priority Long South/Silver Lake Gap, relative to nearby existing nickel mines at Kambalda and a representation of a "time slice" from the 2008 IGO 3D seismic survey².

In addition to the known channels, historical surface exploration by WMC Resources Ltd (**WMC**) identified up to three other potential nickeliferous trends (see Figure 3 below for approximate locations). The list of potential nickel mineralised channels that have the potential to strike onto and through the Company's recently acquired Long South/Silver Lake "Gap" area includes:

- 1. Long (Moran) trend
- 2. Victor (McLeay) trend
- 3. West Victor trend

- 4. North Lunnon trend
- 5. KD 210 trend
- 6. KD 208 trend

KD 210 trend and KD 208 trend are named after surface diamond drill (**DD**) holes that intersected anomalous nickel mineralisation in the interpreted channels up-plunge and nearer to surface.

¹ Source: historical WMC production records plus sum of relevant production from previous ASX:IGO announcements

² Seismic profile insert from "Seismic Methods for Hard Rock Mineral Exploration" Stolz, N., 2012 Seismic Methods for Hard Rock Mineral Exploration; Geoscience Australia, Group Leader, Minerals and Natural Hazards Division, 34th IGC Brisbane, 2012 referencing Williams, P., Whitford, M., Kepic, A., and Urosevic, M., 2012, Recent experiences concerning the use of high definition seismic reflection applied to Komatiitic Nickel Deposits, Western Australia, 74th EAGE Conference & Exhibition, Copenhagen, Denmark, Extended Abstract.





Figure 3: Plan view of the **Silver Lake – Fisher** nickel rights project, illustrating historical WMC historical drilling (coloured by end of hole depth) and interpreted potential nickel trends³.

Success with the 2D trial will demonstrate that this technique is effective on, and through, the lake sediments allowing the Company to commit to the full, 3D survey, which will likely carry an all-in-cost over \$1 million and take between 3 and 6 months to execute, collect and interpret the data.

PAST APPLICATION OF SEISMIC SURVEY IN LONG SOUTH AREA

Shown below in Figure 4, is a slide reproduced from a 2012 presentation⁴ by (at the time) Geoscience Australia's (**GA**) Ned Stolz, detailing 3D seismic survey work completed by Independence Group NL (now IGO Limited) at their Long Operation in the June quarter of 2008 (now owned and operated by Mincor Resources NL).

As illustrated in the publicly available GA 2012 presentation, the potential nickel sulphide bearing "channel" was labelled and appears to be striking south-southeast directly towards the boundary between the tenement/rights held now by Mincor Resources NL and Lunnon Metals' newly acquired nickel rights in the Silver Lake area.

³ Coloured trends represent interpreted nickel trends (sourced from Brand, N.W., 1992. *Base metal ratios in NiS Exploration*. Internal WMC technical report)

⁴ See footnote 2 on page 2 for details.



Lunnon Metals objective is to ultimately acquire the new 3D seismic data immediately south of the Long-Victor 3D survey and complete a full litho-stratigraphic / structural re-interpretation of the approximately 2.0km² Long South/Silver Lake "Gap" area, incorporating publicly available data relating to the hosting environment of the McLeay and Moran nickel deposits.

If the new 3D seismic survey results record any potential continuation of the channels annotated in the 2012 GA Long-Victor nickel mine 3D survey, the Company would consider this a highly successful outcome that would:

- greatly enhance the prospectivity of the acquired nickel rights; and
- provide high ranking, drill ready targets.



Figure 4: Slide excerpt from N. Stolz (Geoscience Australia) 2012 presentation titled "Seismic Methods for Hard Rock Mineral Exploration".



UPCOMING NEWS FLOW FROM SILVER LAKE

The Lunnon Metals programme of activity in the Silver Lake area is as follows:

- **COMPLETED**: re-logging, cutting and re-assaying of available historical WMC Silver Lake Hanging Wall (**SLHW**) DD core.
- **COMPLETED**: based on the experience gained at the Baker Shoot, analysis of multi-element assay results to determine if vectors to possible higher-grade nickel mineralisation are evident at SLHW.
- **ABOUT TO COMMENCE**: surface diamond drilling of high priority targets generated above, with three 70m spaced drill lines and approximately 30m spaced pierce points along lines where possible or warranted (i.e. significantly improving on the approximate 100m x 100m historical drill density).
- Down Hole Transient Electro-Magnetic surveying of selected new Company surface diamond holes to determine if any in-hole, or near-hole, high conductance plates are present that may represent nickel sulphide mineralisation; and ultimately.
- If on-going exploration results and technical studies are successful, the estimation of a Mineral Resource compliant with the JORC Code (2012).
- **ONGOING**: relogging, cutting and re-assaying of priority WMC historical Fisher and other Silver Lake DD core to assist complete Mineral Resource Estimates for the historical mineralisation at those two mines; rank, then target potential extensional discovery opportunities with new Lunnon Metals' drilling.
- **COMMENCED**: 2D seismic trial on Lake Lefroy in Long South/Silver Lake "Gap".
- Upon completion of the above and interpretation of the results, full 3D seismic survey for the 2km strike of untested prospective nickel mineralised channels.
- Thereafter, surface diamond drilling of reflectors that may represent potential mineralised nickel sulphide channels.

This announcement has been approved for release by the Board of Lunnon Metals Ltd.

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Figure 5: Isometric view (looking down to the northwest) of the Silver Lake-Fisher project area highlighting interpreted nickel trends (sourced from Brand, N.W., 1992. *Base metal ratios in NiS Exploration*. Internal WMC technical report), the SLHW prospect and the Long South/Silver Lake "Gap".



ADDITIONAL BACKGROUND ON WMC'S FIRST KAMBALDA NICKEL MINE: THE HISTORIC SILVER LAKE SHAFT

Silver Lake nickel mine was developed on the Lunnon Shoot, named after diamond driller Jack Lunnon who drilled the discovery hole, KD1, in 1966. The mine was operated by WMC continuously from 1966 until its closure in the 1985/86 financial year, producing 4.54 million tonnes of ore at 2.72% Ni for over 123,000 tonnes of nickel metal based on WMC's production records.

The Silver Lake mine and the nickel shoots it hosts are developed on the southeast flank of the Kambalda Dome, with the historical workings plunging for approximately 2.5km to the south-southeast and extending over a vertical distance of at least 350m (from lake surface to 50m below sea level).

Silver Lake was the third largest nickel mine in Kambalda after Otter-Juan and Long Shaft (now both owned by Mincor Resources NL).

The SLHW prospect (known as the '25H' surface during the operating life of the mine) sits below the deepest worked level of the historical Silver Lake mine, being 12 Level (approximately 340m below surface). Technical documentation available to the Company, dating from 1980, indicates that WMC planned to access this area in the future from the Hunt Decline (now part of Canadian listed Karora Resources Beta/Hunt gold mine, some 700m to the west of the Silver Lake workings). That access plan was never executed and the nickel mineralisation hosted by the SLHW remains available to this day.

The same internal WMC technical report indicated that the 25H surface constituted approximately 40% of ore tonnage and nickel metal at Silver Lake hosted in hanging wall positions and 20% of the mine's entire available inventory of nickel (as at September 1980).



Figure 6: Sunrise over Lake Lefroy in the Long South/Silver Lake "Gap" prospect area.



ABOUT THE KAMBALDA NICKEL PROJECT (KNP)

Lunnon Metals currently holds 100% of the mineral rights at the Foster and Baker elements of the KNP, subject to certain rights retained by St Ives*. Full details of the Company's IPO and the transactions involved are in the Prospectus submitted to the ASX dated 22 April 2021 and lodged with the ASX on 11 June 2021.

KNP, shown in its regional location in Figure 7, inclusive of the newly acquired rights as detailed in the announcement dated 12 April 2022, is approximately 47km² in size comprising two parcels of 19 (Foster and Baker or **FBA**) and 20 (Silver Lake and Fisher or **SLF**) contiguous granted mining leases situated within the Kambalda Nickel District which extends for more than 70 kilometres south from the township of Kambalda (**Tenements**).

This world-renowned nickel district has produced in excess of 1.4 million tonnes of nickel metal since its discovery in 1966 by WMC. In addition, close to 15Moz of gold in total has been mined with WMC accounting for 5.9Moz and over 8.3Moz produced by Gold Fields Ltd since the purchase of the operation in December 2001 from WMC, making the Kambalda/St lves district a globally significant gold camp in its own right.



*St Ives retains rights to explore for and mine gold in the "Excluded Areas" on the Tenements at the Foster and Baker elements of the expanded KNP, as defined in the subsisting agreements between Lunnon Metals and SIGM.

This right extends to gold mineralisation which extends from the Excluded Area to other parts of the FBA Tenements with select restrictions which serve to prevent interference with, or intrusion on, Lunnon Metals' existing or planned activities and those parts of the FBA Tenements containing the historical nickel mines.

St Ives has select rights to gold in the remaining areas of the FBA Tenements in certain limited circumstances as described in detail in the Company's Solicitor Report attached to the Prospectus submitted to the ASX dated 22 April 2021 and lodged with the ASX on 11 June 2021.

Figure 7: Regional Location of the Kambalda Nickel Project and other nearby nickel deposits.



COMPETENT PERSON'S STATEMENT & COMPLIANCE

The information in this announcement that relates to nickel geology, nickel Mineral Resources, Exploration Targets and Exploration Results, is based on, and fairly represents, information and supporting documentation prepared by Mr. Aaron Wehrle, who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr. Wehrle is a full-time employee of Lunnon Metals Ltd, a shareholder and holder of employee options; he has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity that he is undertaking to qualify as Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr. Wehrle consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

MINERAL RESOURCES

Cut-off (Ni %)		Indicated Ni			Inferred Ni			Total Ni		
		Tonnes	%	Ni Tonnes	Tonnes	%	Ni Tonnes	Tonnes	%	Ni Tonnes
FOSTER MINE										
Foster Central										
85H	1.0	387,000	3.3	12,800	300,000	1.3	3,800	687,000	2.4	16,600
N75C	1.0	270,700	2.6	6,900	142,000	1.9	2,600	412,700	2.3	9,500
S16C/N14C	1.0	-	-	-	64,000	5.7	3,700	64,000	5.7	3,700
Warren	1.0	136,000	2.7	3,700	75,000	3.7	2,700	211,000	3.1	6,400
South	1.0	223,000	4.7	10,500	116,000	4.8	5,500	340,000	4.7	16,000
Sub total		1,016,700	3.3	33,900	697,000	2.6	18,300	1,714,700	3.0	52,200
BAKER AREA										
Baker	1.0	638,000	3.8	24,000	291,000	2.3	6,800	929,000	3.3	30,800
Sub total		638,000	3.8	24,000	291,000	2.3	6,800	929,000	3.3	30,800
TOTAL		1,654,700	3.5	57,900	988,000	2.5	25,100	2,643,700	3.1	83,000

The detailed breakdown of the Company's Mineral Resources as last updated on 11 January 2023 is as follows:

Note: Figures have been rounded and hence may not add up exactly to the given totals.

DISCLAIMER

References in this announcement may have been made to certain previous ASX announcements, which in turn may have included Exploration Results, Exploration Targets and Mineral Resources. For full details, please refer to the said announcement on the said date. The Company is not aware of any new information or data that materially affects this information. Other than as specified in this announcement and mentioned announcements, the Company confirms it is not aware of any new information or data that materially affects the information included in the original market announcement(s), and in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original announcement.