

Quarterly Activities Report

quarter ended 31 December 2019

Highlights

- **Four new major conductive bodies identified through drilling and Down-Hole Transient Electromagnetic (DHTEM) surveys at Superior Lake Zinc Project (Image 1) (see ASX announcement 29th October 2019).**
 - All four bodies are located within close proximity to current resources and existing underground infrastructure at the Project.
 - The Company has targeted this area initially, as any new discovery could more quickly and easily be accessed via the existing underground infrastructure and ultimately increase the current 9 year mine life.
- **All drilling (3 holes) intersected sulphide-bearing mineralisation. This included 0.35m @ 3.4% Zn and 0.25% Cu at the Pick North prospect (Image 2) (see ASX announcement 29th October 2019).**
 - Mineralisation in this hole encountered a broader 29m wide zone hosting narrow bands of massive and semi-massive pyrrhotite and pyrite (Image 3).
 - The Pick North target is open for at least 1.5km along the mineralised trend with only four historical four holes in this region, despite three encountering sulphide mineralisation.
 - Pick North is located approximately 800m from the Pick Lake deposit (Image 3).
 - Pick North is a priority target for the 2020 exploration program.
- **The Company has made progress regarding an Optimisation Study ("Study") during the past quarter. The Study aims to increase the Project's debt carrying capacity.**
 - The Study is examining the potential to mine more tonnes earlier in the scheduled mine life, as well as deferring non-essential capital costs.
 - The Study is expected to be completed during 1Q 2020
 - The Bankable Feasibility Study ("BFS") delivered a pre-tax NPV₈ of A\$224M (ASX Announcement 28th August 2019).
- **Project Financing – the Company continues to progress discussions with prospective debt providers to fund the development of the Project. These discussions are expected to ramp-up following completion of the Study.**
 - The Company continues to work closely with financial advisor Orimco Resource Investment Advisers ("Orimco") through this process.
 - The Company has already received multiple non-binding indicative proposals from global banks and resource funds. These proposals ranged between US\$50m and US\$70m.
- **The Company made significant progress regarding the acquisition of the minority interest in the Project. This transaction will see the Company's ownership increase from 70% to 87.5%.**
 - An independent expert report will be released in early February 2020, with a meeting of shareholders expected to take place during March 2020.

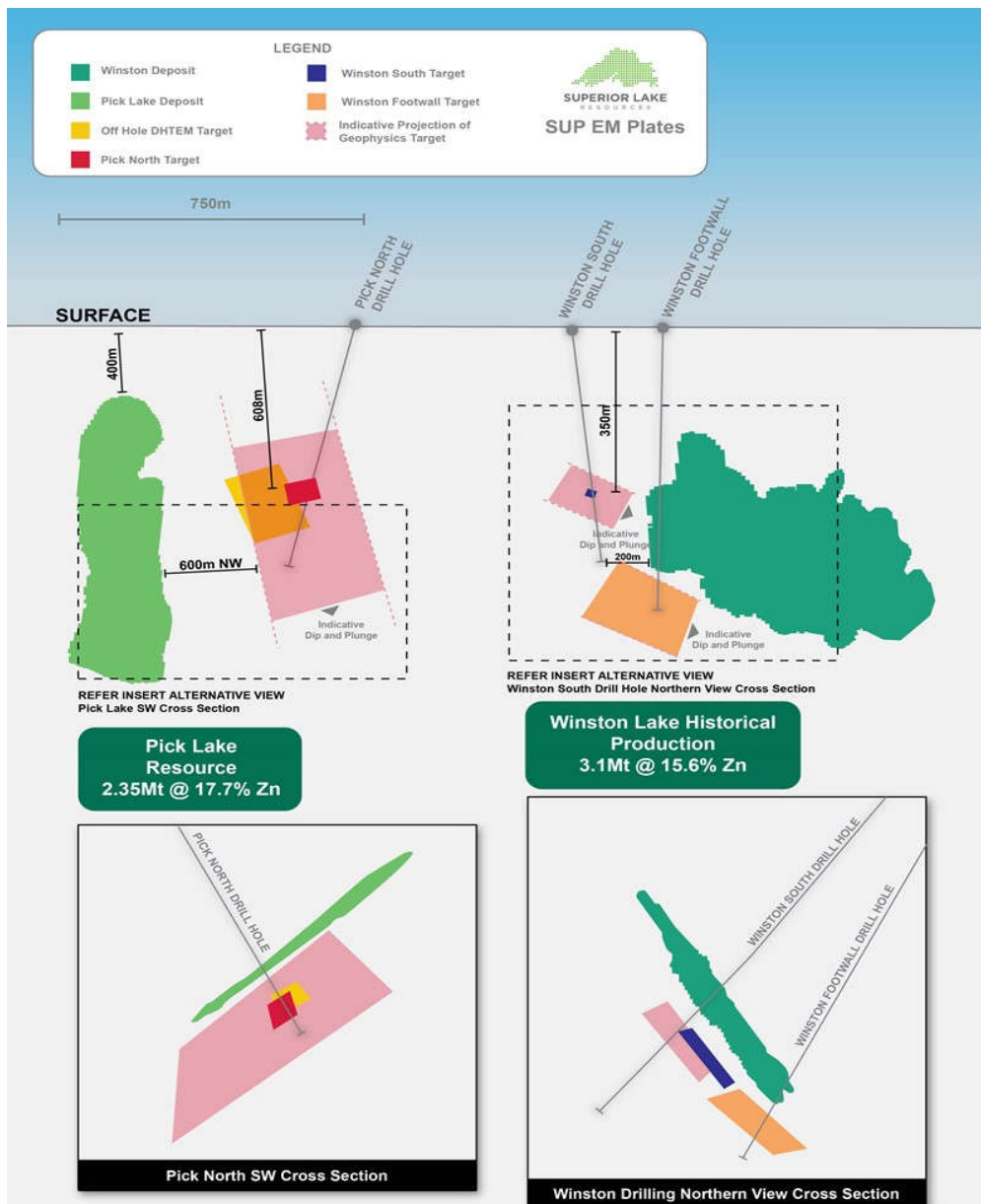


Superior Lake Resources Limited (**ASX: SUP**) ("**Superior Lake**" or the "**Company**") is pleased to provide its quarterly activities report for the Quarter ended 31 December 2019, which focused on advancing its Superior Lake Zinc Project, located in Ontario, Canada ("**Project**").

Four new major near mine conductors identified following extensive exploration program at Superior Lake

During the Quarter, the Company completed a three drillhole and DHTM geophysics program at the Project. The purpose of this program was to identify potential near mine deposits that could be readily accessed via the existing underground infrastructure to ultimately increase the Project's current 9 year mine life. This program was successful as four previously unknown geophysical conductive bodies were identified in close proximity to the existing resources as highlighted in Image 1 below (see ASX announcement 29th October 2019). This is the first significant exploration program at the Project in more than 20 years.

Image 1: Location of the four major geophysical conductive bodies at Superior Lake





Pick North Target

The Pick North target is located approximately 800m from the Pick Lake deposit. Drilling (PL19-01) intersected 0.35m @ 3.4% Zn and 0.25% Cu from 608m (Image 2). This intersection was importantly within a broader 29m wide zone hosting narrow bands of massive and semi-massive pyrrhotite and pyrite. The tenor and thickness of the sulphide mineralisation in hole PL19-01 is significantly higher than any of the limited historical drilling in the area (see ASX announcement 9th October 2019). Only four historical holes have been drilled in this region with 3 of those holes intersecting sulphide mineralisation.

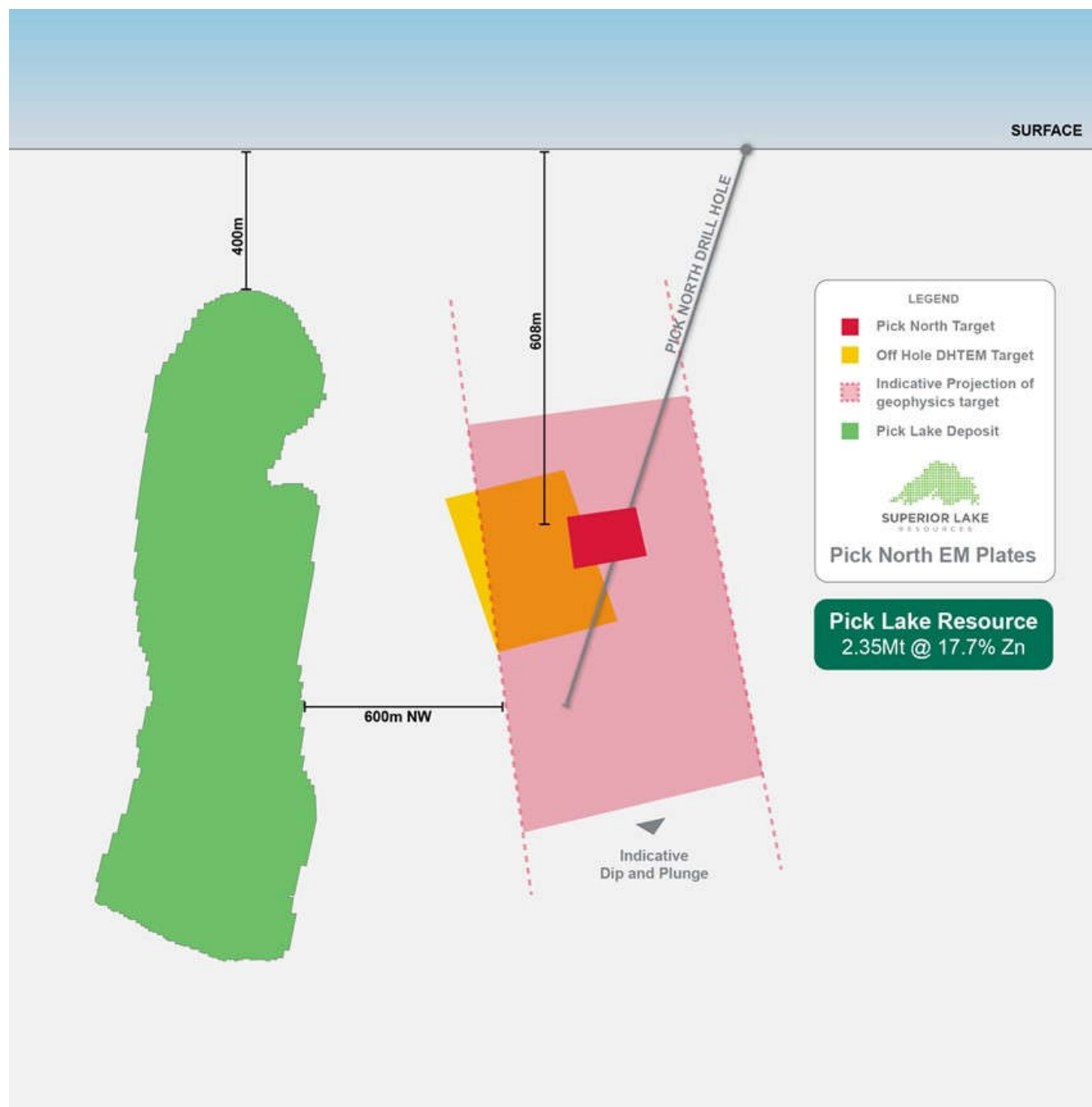
Image 2: Pick North Target Hole showing sulphide mineralisation, Hole SUP 19-01, 608 meters



In addition to the drilling, the down-hole geophysical probe detected two conductive bodies lying elsewhere along this interval, which was a successful outcome. The location of these conductive bodies in relation to the Pick Lake deposit is highlighted in Image 3 below (see ASX announcement 22nd October 2019).



Image 3: Pick North target section with confirmed geophysical target identified at Superior Lake



Given the drilling success, the results of the DHEM program as well as the limited historical work completed in this region, Pick North will be a priority target for future exploration.



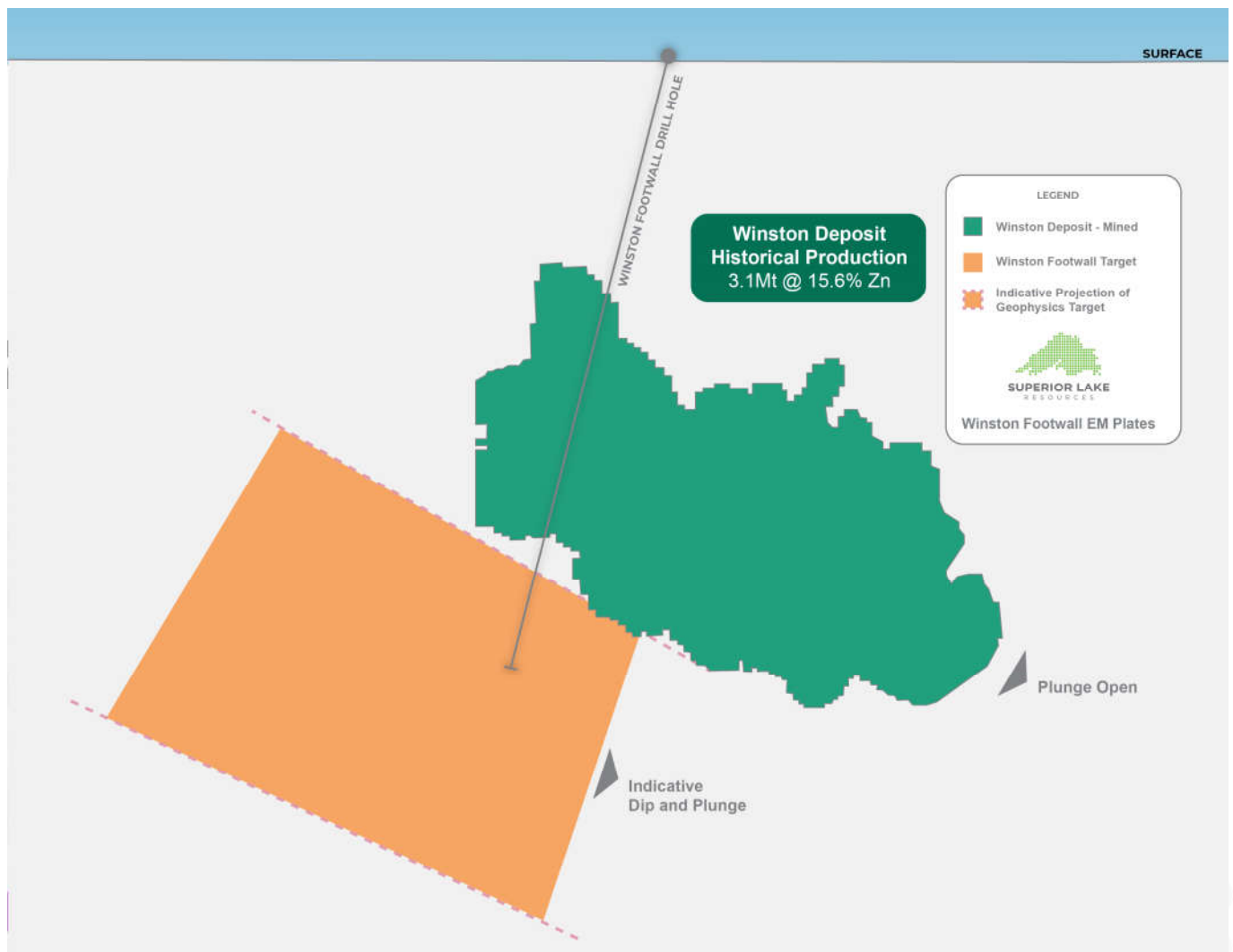
Winston Footwall Target (see ASX announcement 22nd October 2019)

The Winston Footwall target conductor was identified through the Fixed Loop Transient Electromagnetic (FLTEM) survey completed earlier in the year and was interpreted to be down-dip from the bottom edge of the Winston Lake orebody. A hole was drilled to a depth of 693m.

From 639m to the bottom of the hole, drilling intersected a mixed interval of tuff, chemical and clastic sediments containing disseminations and narrow bands of heavily disseminated to semi-massive pyrrhotite along with very minor pyrite, indicative alteration features of the VMS system that hosts the Winston deposit.

The DHTEM survey of the hole subsequently confirmed that the intersected sulphides form part of an extensive conductor in the footwall of the Winston deposit. As highlighted in Image 4 below this conductive body has a similar strike, dip and plunge to the Winston deposit.

Image 4: Winston Footwall target section with confirmed geophysical target identified at Superior Lake





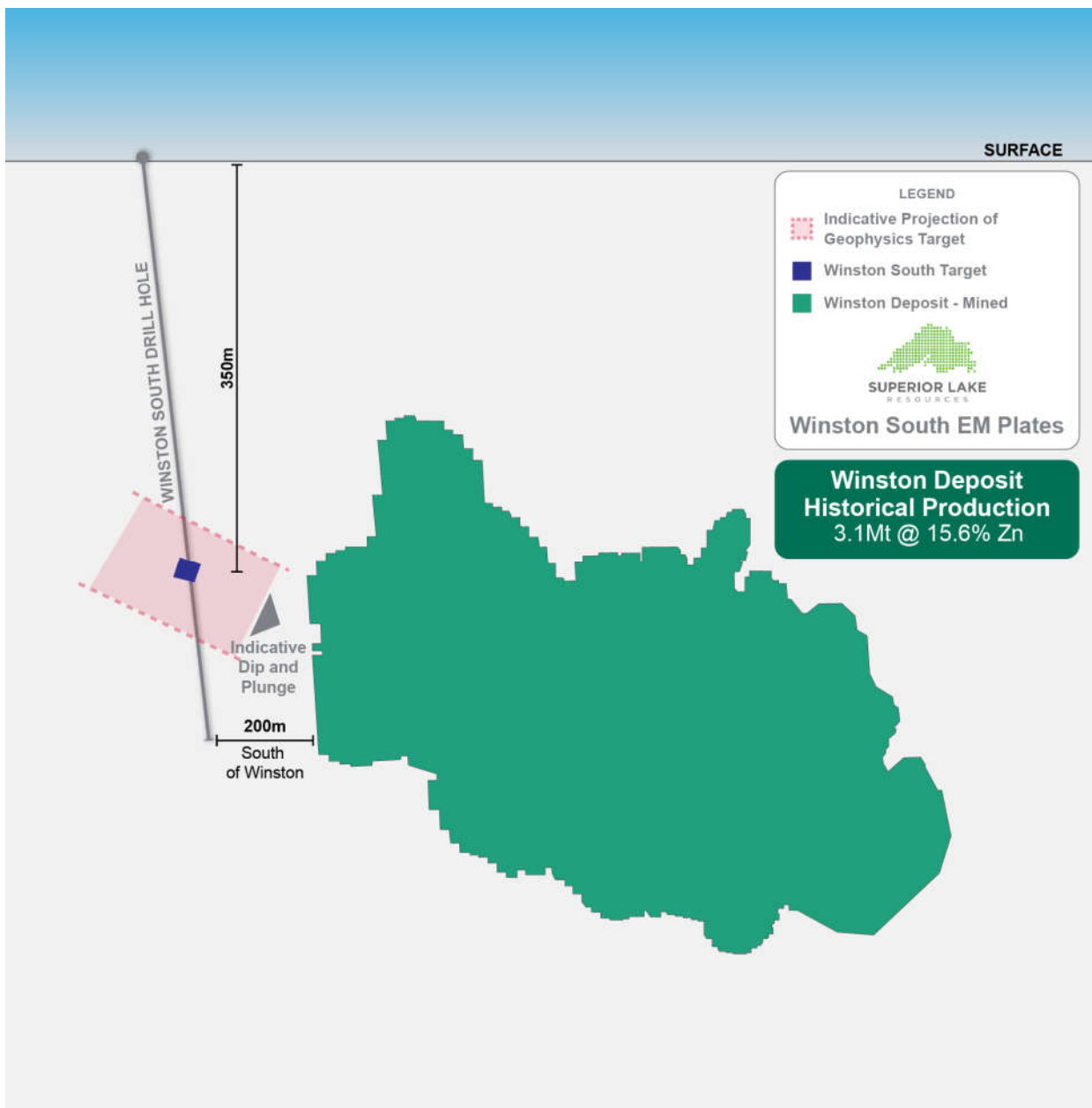
Winston South Target (see ASX announcement 22nd October 2019)

The Winston South target was drilled to a depth of 549m. Between 318m and 358m, drilling intersected a mixed interval of tuff, chemical and clastic sediments containing disseminations and narrow bands of heavily disseminated to semi-massive pyrrhotite along with minor pyrite consistent with alteration features of VMS systems.

In addition, the DHTM survey successfully identified an extensive conductive body coplanar with a known mineralised horizon which hosts the Winston orebody as well as an additional proximal conductor which could indicate a further mineralised horizon as shown in Image 5 below.

The Winston South target is a conductor originally thought to be in the footwall sequence south of the Winston Lake orebody. However, the sulphide zone intersected in the hole is about 100m up-hole from the expected position of the conductor predicted by modeling of the surface FLTEM data. The Winston South conductor geometry interpreted from DHTM and FLTEM is on-trend with the Winston Lake orebody.

Image 5: Winston South target section with confirmed geophysical target identified at Superior Lake





Optimisation Study

Following completion of the BFS (ASX announcement 28th August 2019), which delivered robust financial returns (pre-tax NPV₈ of A\$224M), driven by exceptionally low operating costs (C1 US\$0.35/lb) and low upfront capital expenditure (US\$87M), the Company commenced the Study. The objective of the Study is to further improve the economic returns and more importantly, further increase the Project's debt carrying capacity, which if achieved, could reduce the equity component for Project development.

The two key areas the Company is focusing on for this Study are:

- 1) Examining the potential to mine higher grade ore and / or more tonnes earlier in the Project's life. (During the first two years of production, the average grade mined is less than the reserve grade of 13.9% Zn).
- 2) Identifying capital costs that could potentially be deferred until later in the Project's life.

The Company has made good progress in both areas and is working closely with its financial advisor, Orimco, potential debt financiers and other resource sector specialists to examine the potential to achieve these outcomes. The Company aims to complete this work during 1Q 2020.

Project Finance

As previously reported, the Company has received multiple non-binding indicative proposals for financing the development of the Project (see ASX announcement 27th August 2019). These proposals range between US\$50m and US\$70m.

Concentrate Offtake

The Company continues to receive strong interest from global metal traders regarding the zinc and copper concentrates expected to be produced at the Project. As previously reported, this interest has resulted in multiple non-binding, indicative proposals being received by the Company for offtake (see ASX announcement 5th July 2019).

These proposals provide guidance on pricing, treatment and refining charges and production specifications. Receiving such indicative proposals from leading international metal traders highlights the quality of the concentrate to be produced at the Project, with favourable grades and minimal deleterious elements. These proposals are the first step towards securing binding offtake agreements in the future.

Discussions with potential offtake partners has also highlighted the possibility of additional funding linked to offtake arrangements, outside of the senior project finance facility. An offtake related financing is typically in the form of mezzanine debt or concentrate pre-payments, which has the potential to further reduce the equity component for financing project development.

Offtake and smelter overview – North America

There are currently four operating zinc smelters in North America. These include:

- CEZinc smelter in Salaberry-de-Valleyfield, Canada owned by Glencore;
- Flin Flon smelter in Manitoba, Canada owned by HudBay Minerals;
- Trail smelter in British Columbia, Canada owned by Teck Resources; and
- Clarksville in Tennessee, USA owned by Nyrstar.



Image 6: Location of North American smelters and rail and port terminals



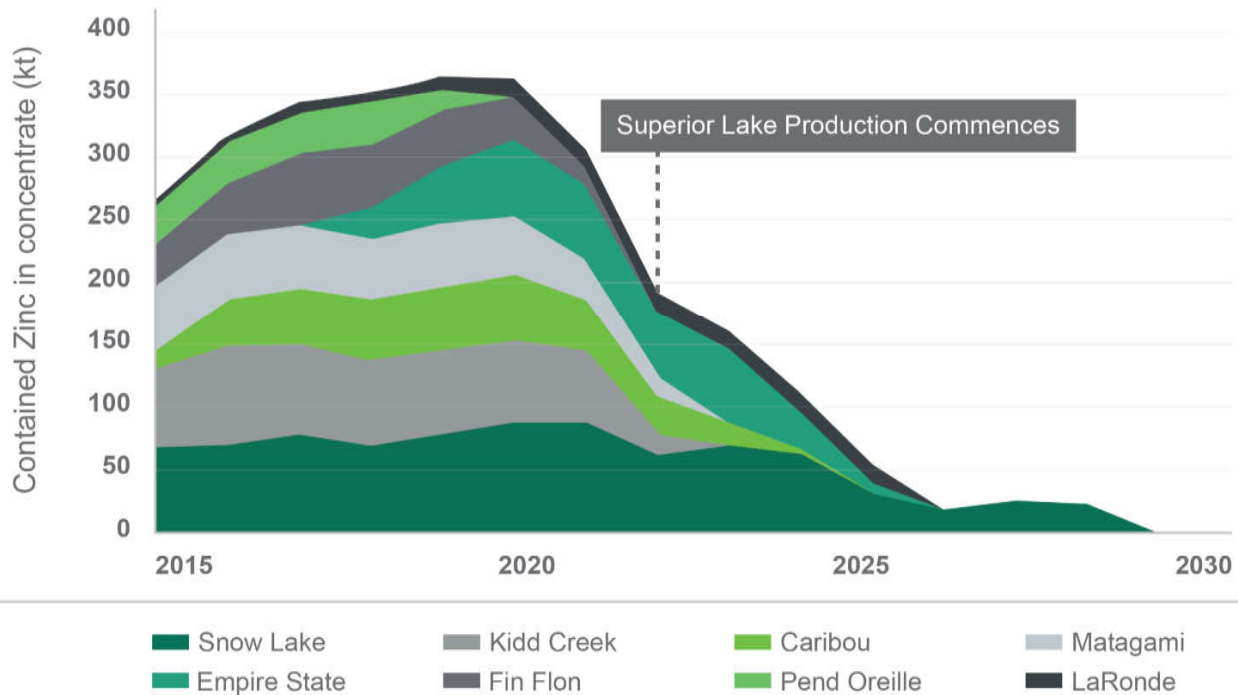
The majority of supply for these smelters is provided by North American zinc operations. Leading independent commodity expert, CRU Group, recently highlighted that North American zinc in concentrate production has been almost flat since the end of 2014, rising only 1.9% over the period to 1.76 Mt in 2018. Over the next five years, conditions are forecast by CRU to remain the same, with a number of major closures scheduled, including; Teck's Pend Oreille, Hudbay's Flin Flon and Glencore's Kidd Creek.

As highlighted in the graph below (Image 7), the estimated date for commencement of production at Superior Lake is forecast to align with the decline in production from major North American zinc operations. This will mean that unless the mine life at existing operations is expanded or new development projects such as Superior Lake are brought into production, the smelters will need to look for new zinc supply from offshore operations. As highlighted in Image 6, the concentrate produced at Superior Lake can access each smelter in North America using existing rail and road infrastructure. In addition, through this existing infrastructure network, the concentrate can easily access the Canadian port system, both on the East and West coast, and to European and Asian smelters.



Image 7: North American zinc supply deficit (Source: CRU – August 2019)

North American zinc supply - Significant Deficit



CORPORATE

Cash

As at 31 December 2019 the Company had \$0.9million cash and receivables and no debt.

Increase ownership to 87.5%

The Company made progress regarding the proposed acquisition of the minority interest in the Project during the past quarter that will see the Company's interest increase from 70% to 87.5%. An independent expert report is currently being finalised and a meeting of shareholders is expected to take place during March to vote on this proposed transaction.

Share consolidation

After discussions with numerous financial institutions and in preparation for Project financing, the Company plans to consolidate the number of shares on issue in line with the Company's peers. Further information regarding the consolidation is likely to be released in the coming weeks. A meeting of shareholders to vote on a consolidation is expected to take place during March 2020.

Departure of CEO

During the Quarter, the Company announced that Chief Executive Officer, Mr David Woodall, would be leaving the Company. A handover of responsibilities to the Board is expected to be completed by 9th February 2020, at which time Mr Woodall will depart the Company.

The Company has commenced a global search for a new CEO/Managing Director to lead the Project through development. This search may also result in an expansion of the current board and management team with expertise in Project development.



Information required under ASX Listing Rule 5.3.3

A list of current mining and exploration tenements as at 31 December 2019. There has been no change to the Company's tenement holdings from the previous Quarter.

Country	Tenement	Interest	Status
Ontario, Canada	4287909	70%	Granted
Ontario, Canada	4287910	70%	Granted
Ontario, Canada	4287911	70%	Granted
Ontario, Canada	4274196	70%	Granted
Ontario, Canada	4274197	70%	Granted
Ontario, Canada	4244161	70%	Granted
Ontario, Canada	4244162	70%	Granted
Ontario, Canada	4244163	70%	Granted
Ontario, Canada	4244751	70%	Granted
Ontario, Canada	4274195	70%	Granted
Ontario, Canada	3001231	70%	Granted
Ontario, Canada	4284603	70%	Granted
Ontario, Canada	4287912	70%	Granted
Ontario, Canada	4287913	70%	Granted
Ontario, Canada	4287914	70%	Granted
Ontario, Canada	4287915	70%	Granted
Ontario, Canada	4287916	70%	Granted
Ontario, Canada	4287917	70%	Granted
Ontario, Canada	4287918	70%	Granted
Ontario, Canada	4287919	70%	Granted
Ontario, Canada	4287920	70%	Granted
Ontario, Canada	4287921	70%	Granted
Ontario, Canada	4287922	70%	Granted
Ontario, Canada	4287923	70%	Granted
Ontario, Canada	4287924	70%	Granted
Ontario, Canada	4287925	70%	Granted
Ontario, Canada	4284634	70%	Granted
Ontario, Canada	4284639	70%	Granted
Ontario, Canada	4284644	70%	Granted
Ontario, Canada	4284628	70%	Granted
Ontario, Canada	4284629	70%	Granted
Ontario, Canada	4284630	70%	Granted
Ontario, Canada	4284631	70%	Granted



Country	Tenement	Interest	Status
Ontario, Canada	4284632	70%	Granted
Ontario, Canada	4284633	70%	Granted
Ontario, Canada	4284635	70%	Granted
Ontario, Canada	4284636	70%	Granted
Ontario, Canada	4284637	70%	Granted
Ontario, Canada	4284638	70%	Granted
Ontario, Canada	4284640	70%	Granted
Ontario, Canada	4284641	70%	Granted
Ontario, Canada	4284642	70%	Granted
Ontario, Canada	4284643	70%	Granted
Ontario, Canada	4284648	70%	Granted
Ontario, Canada	4284680	70%	Granted
Ontario, Canada	4284684	70%	Granted
Ontario, Canada	4284601	70%	Granted
Ontario, Canada	4284606	70%	Granted
Ontario, Canada	4284602	70%	Granted
Ontario, Canada	4284604	70%	Granted
Ontario, Canada	4284605	70%	Granted
Ontario, Canada	4284607	70%	Granted
Ontario, Canada	4284608	70%	Granted
Ontario, Canada	4284609	70%	Granted
Ontario, Canada	4284610	70%	Granted
Ontario, Canada	4284617	70%	Granted
Ontario, Canada	4284645	70%	Granted
Ontario, Canada	4284646	70%	Granted
Ontario, Canada	4284647	70%	Granted
Ontario, Canada	4284649	70%	Granted
Ontario, Canada	4284650	70%	Granted
Ontario, Canada	4284679	70%	Granted
Ontario, Canada	4284681	70%	Granted
Ontario, Canada	4284682	70%	Granted
Ontario, Canada	4284683	70%	Granted
Ontario, Canada	4284611	70%	Granted
Ontario, Canada	4284612	70%	Granted
Ontario, Canada	4284613	70%	Granted
Ontario, Canada	4284614	70%	Granted



Country	Tenement	Interest	Status
Ontario, Canada	4284615	70%	Granted
Ontario, Canada	4284616	70%	Granted
Ontario, Canada	4284618	70%	Granted
Ontario, Canada	4284619	70%	Granted
Ontario, Canada	4284620	70%	Granted
Ontario, Canada	4284621	70%	Granted
Ontario, Canada	4284622	70%	Granted
Ontario, Canada	4284623	70%	Granted
Ontario, Canada	4284624	70%	Granted
Ontario, Canada	4284625	70%	Granted
Ontario, Canada	4284626	70%	Granted
Ontario, Canada	4284627	70%	Granted
Western Australia, Australia	E33/477	100%	Granted



About the Company

Superior Lake Resources Limited

Superior Lake Resources Limited is focused on the redevelopment of the Superior Lake Zinc Project in North Western Ontario, Canada. The Project is a high-grade zinc deposit with a JORC resource of 2.35 Mt at 17.7% Zn, 0.9% Cu, 0.38 g/t Au and 34 g/t Ag (see ASX announcement 7th March 2019) and a Probable Ore Reserve of 1.96Mt at 13.9% Zn, 0.6%Cu, 0.2g/t Au and 26.2g/t Ag (ASX announcement 28th August 2019).

Superior Lake Mineral Resource at 3% Zn cut-off grade ¹					
Classification	Tonnage Mt	Zn%	Cu%	Au g/t	Ag g/t
Indicated	2.07	18.0	0.9	0.38	34
Inferred	0.28	16.2	1.0	0.31	37
Total	2.35	17.7	0.9	0.38	34
Superior Lake Ore Reserve at 5.2% Zn cut-off grade					
Classification	Tonnage Mt	Zn%	Cu%	Au g/t	Ag g/t
Probable	1.96	13.9	0.6	0.2	26.2
Total	1.96	13.9	0.6	0.2	26.2

1. Mineral Resources are inclusive of Ore Reserves. The Mineral Resource was estimated within constraining wireframe solids using a nominal 3% zinc cut-off grade. The resource is quoted from all classified blocks within these wireframe solids. Differences may occur due to rounding.

To learn more about the Company, please visit www.superiorlake.com.au, or contact:

Grant Davey Executive Director +61 8 6117 0479

Reference to previous ASX announcements

In relation to the Mineral Resource estimate previously reported on 7th March 2019, Superior Lake confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 7th March 2019 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the announcement of 7th March 2019 continue to apply and have not materially changed.

In relation to the Ore Reserve estimate previously reported on 28th August 2019, Superior Lake confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 28th August 2019 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in the announcement of 28th August 2019 continue to apply and have not materially changed.

In relation to the results of the Bankable Feasibility Study announced on 28th August 2019, Superior Lake confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.

In relation to previous announcements containing exploration results referred to in this announcement, Superior Lake confirms that it is not aware of any new information or data that materially affects the information included in those announcements.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Superior Lake Resources Limited	
ABN	Quarter ended ("current quarter")
64 139 522 553	31 December 2019

Consolidated statement of cash flows	Current quarter \$A'000	Year to date (12 months) \$A'000
1. Cash flows from operating activities		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) exploration & evaluation	(514)	(1,341)
(b) development	(566)	(4,062)
(c) production	-	-
(d) staff costs	(110)	(504)
(e) administration and corporate costs	(77)	(705)
(f) project acquisition costs	-	-
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	-	28
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Research and development refunds	-	-
1.8 Other (Business development and financing)	(112)	(314)
1.9 Net cash from / (used in) operating activities	(1,377)	(6,898)

2. Cash flows from investing activities		
2.1 Payments to acquire:		
(a) property, plant and equipment	-	(3)
(b) tenements (see item 10)	-	(335)
(c) investments	-	-

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (12 months) \$A'000
	(d) other non-current assets	-	-
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	Net cash from / (used in) investing activities	-	(338)

3.	Cash flows from financing activities		
3.1	Proceeds from issues of shares	200	3,896
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	-	(128)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	Net cash from / (used in) financing activities	200	3,768

4.	Net increase / (decrease) in cash and cash equivalents for the period		
4.1	Cash and cash equivalents at beginning of period	1,939	4,229
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,377)	(6,898)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	-	(338)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	200	3,769
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	Cash and cash equivalents at end of period*	762*	762*

* The company has made a claim to the Canadian Taxation Office for a net GST/HST refund of CAD\$139,011 (AUD\$152,071) that relates to GST/HST input tax credits on Canadian exploration expenses for the September and December quarter. The refund is expected during February 2020. This amount has not been reflected in the cash balance above. Therefore, as at 31 December 2019 cash and short-term receivables totalled \$913,584.

5. Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1 Bank balances	517	21
5.2 Call deposits	245	1,918
5.3 Bank overdrafts	-	-
5.4 Other (provide details)	-	-
5.5 Cash and cash equivalents at end of quarter (should equal item 4.6 above)	762	1,939

6. Payments to directors of the entity and their associates

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter
\$A'000**

60

-

Directors' fees for the quarter.

7. Payments to related entities of the entity and their associates

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter
\$A'000**

52

-

Mr Grant Davey, who is a non-executive Director of the Company is a Director and shareholder of Matador Capital Pty Ltd (Matador Capital). The Company makes payments to Matador Capital under a Shared Services Agreement in which Matador Capital provides office space, general office costs, bookkeeping services and technical exploration staff to the Company.

8. Financing facilities available <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities		
8.2 Credit standby arrangements		
8.3 Other (please specify)		
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

--

9. Estimated cash outflows for next quarter	\$A'000
9.1 Exploration and evaluation	-
9.2 Development	112
9.3 Production	-
9.4 Staff costs	50
9.5 Administration and corporate costs	199*
9.6 Other (Payment for the acquisition of the Pick Lake Project under the original acquisition agreement)	-
9.7 Total estimated cash outflows	361

* Administrative and corporate costs for the March quarter include the payment of costs associated with the roll-up of minority shareholders of the Company's subsidiary including shareholder meeting costs, Independent Experts Report costs, legal advice and taxation consultation. Staff costs include the final payment to the Company's outgoing CEO.

10. Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1 Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	-	-	-	-
10.2 Interests in mining tenements and petroleum tenements acquired or increased	-	-	-	-

Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here: **Lodged electronically** Date: **31 January 2020**
(~~Director~~/Company secretary)

Print name: **STUART MCKENZIE**

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.