

## Quarterly Activities Report for the period ending 31 March 2020

### Highlights

- Rhyolite Ridge Definitive Feasibility Study ('DFS') is on track for completion in late April 2020
  - Pilot plant activities continue to support the optimisation of the process flowsheet
  - Environmental reports for the Project's Plan of Operations nearing finalisation
  - Company to fund a five-year study under a collaboration with the University of Nevada, Reno following successful results from a Tiehm's Buckwheat breeding trial from seed collected at Rhyolite Ridge
  - The Company has adequate capital to advance the Project post completion of the DFS to at least the end of 2021
  - Talks with potential strategic and funding partners continued during the quarter
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Thursday, 16 April 2020 – Emerging lithium-boron supplier, ioneer Ltd ('ioneer' or the 'Company') (ASX:INR) is pleased to provide an update on the development of its 100%-owned Rhyolite Ridge Lithium-Boron Project ('Rhyolite Ridge' or 'the Project') in Nevada, USA, for the quarter ending 31 March 2020.

Commenting on progress made during the March quarter, ioneer's Managing Director Bernard Rowe said:

*"We made great headway at both corporate and operational levels through the March quarter, despite the impact of COVID-19 on the business. Our first priority remains the health and safety of our employees and partners, as well as the communities in which we operate. We acted quickly to reduce forward expenditures on the Project in order to minimise financial risk and maintain a strong cash balance, whilst ensuring we retain the ability to ramp up activities quickly and safely once the pandemic subsides, and deliver on key Project milestones such as the DFS and permitting.*

*Our near-term focus remains completing the DFS and the permitting of the Project, as well as advancing ongoing discussions with customers and strategic partners.*

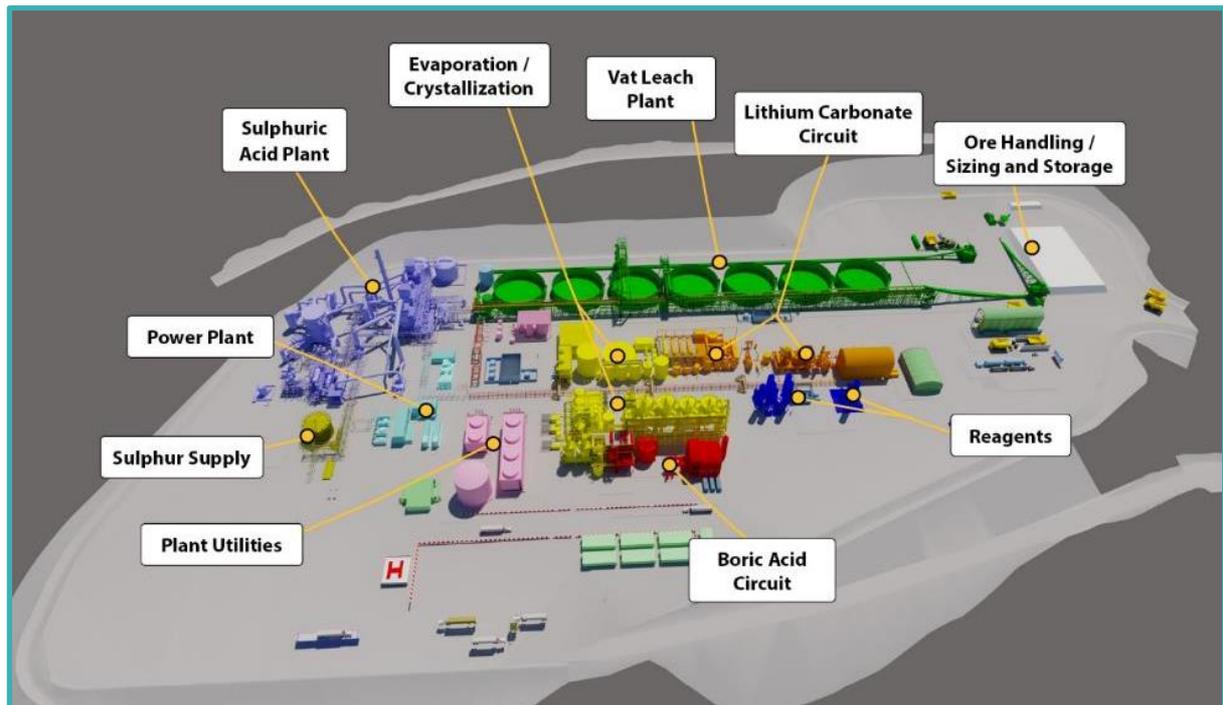
*In addition, we are extremely pleased with the results received during the past quarter through our collaboration with the University of Nevada, Reno (UNR) in germinating Tiehm's Buckwheat. The number of seeds germinated was far higher than expected giving us optimism for future transplanting and conservation activities. This success also prompted us to sign a five-year research agreement with UNR focused exclusively on Tiehm's Buckwheat conservation."*

## Definitive Feasibility Study Progress and Completion

The Company remains on track to deliver the DFS for its Rhyolite Ridge Lithium-Boron Project ('Project') in late April, as announced on 24 March 2020. Final completion had previously been targeted for the end of Q1 2020 but has been slightly delayed due to challenges related to COVID-19 faced by Ioneer and its engineering partner.

As advised in the December quarterly, flowsheet enhancements have been incorporated in the engineering design, which is planned to be circa 30% completed in the DFS.

### Schematic of Rhyolite Ridge Process Plant



## Pilot Plant Operations

Extensive testwork has been conducted to test and optimise the proposed commercial flowsheet at the full-simulation pilot plant in Vancouver, Canada. This work was progressed in the March quarter and has continued to play a critical role in ensuring a comprehensive understanding of the process flowsheet and in improved engineering design and operating plans. The modifications and improvements are being incorporated into the detailed engineering plans.

Kemetco Research Inc. is operating the pilot plant and is one of Canada's largest privately-owned contract research and development laboratories, specialising in extractive metallurgy, chemical processing and specialty chemical analysis.

A video of the Rhyolite Ridge pilot plant is available at [www.ioneer.com/investors/videos](http://www.ioneer.com/investors/videos)

## State and Federal Permitting Process

Following completion of environmental baseline studies and other work undertaken over the past two years, Ioneer is currently finalising the reports comprising the Plan of Operations for the development of the Project. The Company intends to file the Plan of Operations with the U.S. Department of the Interior - Bureau of Land Management ('BLM') soon. This filing

will trigger the environmental review process under the National Environmental Policy Act ('NEPA') and is expected to follow an Environmental Impact Statement ('EIS') pathway.

ioneer continues to engage with communities near Rhyolite Ridge and other stakeholders, as well as constructively working with state and federal regulatory authorities. Support for the Rhyolite Ridge Project continues to be strong.

### **Tiehm's Buckwheat Preservation**

During the quarter, a collaboration between iioneer and the University of Nevada, Reno (UNR) to grow Tiehm's Buckwheat from seed collected at Rhyolite Ridge yielded early success, with germination rates significantly higher than expected.



*Photo 1: Tiehm's Buckwheat seedlings growing at the University of Nevada, Reno greenhouse*

*Photo 2: Tiehm's Buckwheat growing in disturbed ground around an exploration trench at Rhyolite Ridge*

This is a key part of the protection and management strategy and first step in demonstrating the effectiveness in propagating and transplanting Tiehm's Buckwheat.

The successful results have prompted iioneer and UNR to expand the research with the signing of a five-year agreement focusing exclusively on Tiehm's Buckwheat. UNR is well regarded and experienced in this field, having undertaken similar studies on Crosby Buckwheat.

Tiehm's Buckwheat has been observed to grow well in areas of disturbed soil – including areas of disturbance at Rhyolite Ridge created by prior exploration activities.

iioneer has been working to protect the Tiehm's Buckwheat for some time, putting in place numerous voluntary protection measures designed to minimise impacts and increase the likelihood of survival of the species in its natural habitat into the foreseeable future. The University of Nevada, Reno project is just one piece of the extensive protection plan.

## Strategic Partner and Offtake Discussions

In the quarter, Ioneer and its financial advisor continued to engage with multiple strategic partners regarding project development funding. The delivery of the DFS will be a key milestone in advancing these discussions.

To date, around twenty potential strategic partners have toured the pilot plant. The tours have provided potential partners with an opportunity to extensively interact with key members of Ioneer's technical and commercial teams and to gain a deeper understanding of Ioneer's vision for the Rhyolite Ridge Project.

Additionally, product samples from the pilot plant have been sent to over 30 potential customers around the world for evaluation as part of multiple ongoing offtake negotiations. These samples contain >99.9% premium quality boric acid and >99.0% technical-grade lithium carbonate with extremely low levels of impurities.

During the quarter, significant progress was made with several potential boric acid distributors. These discussions follow on from the binding five-year offtake agreement signed with Dalian Jinma Boron Technology Group in December 2019 for what is thought to be one of the largest boric acid contracts ever signed. Ioneer expects that a number of these distributor agreements for boric acid offtake will be announced in the June 2020 quarter.

Lithium offtake discussions have been deferred, pending the outcome of future strategic partnering negotiations.

## Upcoming Work Program

The work program over the coming months includes:

- Completion of the Rhyolite Ridge DFS in early Q2 2020
- Submission of Rhyolite Ridge Plan of Operations to the BLM and commencement of the formal EIS permitting process
- Progressing discussions with potential offtake, financial and strategic partners with the assistance of a global investment bank
- Supply contracts relating to reagents, long lead time items and detailed engineering

## Corporate Activities

### Impact of COVID-19

The Company has revised its forward plans in response to COVID-19 and has adequate capital to move the Project forward post DFS completion at a situationally prudent pace, and to fund all capital requirements until at least the end of 2021.

The revised capital plan will enable the Company to complete the DFS, fully fund the Bureau of Land Management Environmental Impact Study permitting process and maintain its core team, including critical contractor personnel, required to ensure continuity and the rapid re-acceleration of post-DFS detailed engineering work.

The Company is closely monitoring the situation and is well prepared to accelerate work towards a Final Investment Decision once market and societal norms return.

## Substantial Holding

In January, Centaurus Capital LLP filed a notice advising the market that they had become an initial substantial holder on Ioneer with a shareholding of 7.84% of the Company. In March, Centaurus increased their holding to 9.21%.

## Expenditure

Expenditure during the March quarter totalled:

- \$10.5 million on investing activities; and
- \$1.0 million on operating activities (net of interest received).

Ioneer is well capitalized, with total cash on hand at 31 March 2020 of AUD 53.2 million of which 84% is held in USD cash and cash equivalents. The Company has already paid the majority of costs to deliver the DFS, including the Project's extensive pilot plant program.

## Capital Structure

At the end of the quarter, Ioneer had on issue:

- 1.68 billion ordinary shares
- 43.7 million options, and
- 7.9 million performance rights.

## Contacts

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*This ASX release has been authorised by Ioneer Managing Director Bernard Rowe.*

## About ioneer

ioneer Ltd is the 100% owner of the Rhyolite Ridge Lithium-Boron Project located in Nevada, USA, the only known lithium-boron deposit in North America and one of only two known such deposits in the world. Rhyolite Ridge is expected to become a globally significant, long-life, cost-effective source of lithium and boron vital to a sustainable future.

Rhyolite Ridge's unique mineralogy allow lithium and boron to be extracted in a low-cost and environmentally sustainable manner. The Project's commercial viability is made possible by having both lithium and boron revenue streams.

Lithium is vital to enable technologies that combat climate change and reduce carbon emissions. It is a critical component for batteries essential to electric vehicles, and the conversion of intermittent green energy to base load power. The US Department of Interior listed lithium as a critical mineral in Executive Order 13817 (Federal Register, 83 FR 7065). There is only one producing lithium mine in the USA and no new projects are under construction. Rhyolite Ridge will help address the over-reliance on South American and Chinese supply to the lithium-ion battery industry.

Boric Acid is also a very important material for clean technologies and sustainability and is only produced in a few locations globally. It is used in over 130 applications, including permanent magnets for electric cars and wind turbines, advanced glass for televisions, computers, handheld devices and solar panels. Over 70% of global boron reserves are located in Turkey with Rhyolite Ridge well positioned to geographically rebalance supply in the USA.

## Recent Announcements

The table below lists announcements made by the Company during the quarter.

Date Released	Title
08/01/2020	ioneer successfully resolves environmental litigation
13/01/2020	Appendix 3B
13/01/2020	Becoming a substantial holder
30/01/2020	December 2019 Quarterly Activities Report
30/01/2020	December 2019 Quarterly Cashflow Report
27/02/2020	Half Year Report and Accounts
02/03/2020	Change in substantial holding
11/03/2020	Business update
24/03/2020	Update related to the COVID-19 pandemic



## Appendix 1 - Schedule of Tenements

Country	Project	Tenement ID	Tenement Name	Area (km <sup>2</sup> )	Interest at beginning of quarter	Interest at end of quarter	Note
USA	Rhyolite Ridge	NMC1118666	NLB claims (160)	13	100%	100%	No change
USA	Rhyolite Ridge	NMC1117360	SLB claims (199)	16.5	100%	100%	No change
USA	Rhyolite Ridge	NMC1171536	SLM claims (122)	9.7	100%	100%	No change
USA	Rhyolite Ridge	NMC 1179516	RR claims (65)	5.4	100%	100%	No change
USA	Rhyolite Ridge	NMC 1129523	BH claims (81)	7	0%	0%, option to purchase 100%	No change
USA	SM	NMC1166813	SM claims (96)	7.7	100%	100%	No change
USA	GD	NMC1166909	GD claims (13)	1.1	100%	100%	No change
USA	CLD	NMC1167799	CLD claims (65)	5.2	100%	100%	No change
USA	New Morenci	AMC393550	MP claims (2)	0.12	100%	100%	No change
USA	Tokop	NMC883619	TK claims (73)	4.82	100%	100%	No change
USA	Tokop	NMC285234	Path Patents (11)	0.74	0%, option to purchase 100%	0%, option to purchase 100%	No change
USA	Tokop	NMC814692	Path Unpatented (5)	0.40	0%, option to purchase 100%	0%, option to purchase 100%	No change
USA	Lone Mt	NMC913404	NAMMCO claims (71)	5.43	0%, earning 100%	0%, earning 100%	No change