

## QUARTERLY ACTIVITIES REPORT for the period ending 30 September 2022

### Highlights

- ioneer signs binding Lithium Offtake Agreement with Ford
- ioneer signs binding Lithium Offtake Agreement with Prime Planet Energy & Solutions
- ioneer and Caterpillar complete definitive agreement regarding autonomous haul trucks at Rhyolite Ridge
- Plan of Operations resubmitted to BLM in early July. NOI to start NEPA process, expected December 2022 quarter
- Detailed due diligence process continuing with US Department of Energy's Loan Programs Office
- Detailed engineering and procurement activities advancing
- Dedicated Tiehm's buckwheat greenhouse under construction

**Monday October 24, 2022 – ioneer Ltd (ioneer or the Company) (ASX: INR)**, an emerging American lithium–boron supplier, is pleased to report on its activities for the quarter ending 30 September 2022 and to provide an update on the development of its 100%-owned Rhyolite Ridge Lithium-Boron Project (Rhyolite Ridge or the Project) in Nevada, USA.

ioneer Managing Director, Bernard Rowe said:

*“We were delighted to announce two lithium offtake agreements in the quarter with world-class automakers, in the Ford Motor Company and Toyota (through PPES). This is the culmination of several years of work and has required patience, together with a clear strategy of ensuring that our U.S. produced lithium becomes part of the U.S. battery supply chain - something these agreements achieve. Together with the EcoPro offtake agreement, this completes our pre-production lithium offtake strategy and supports any future debt funding.*

*“The Company also announced the completion of an agreement with Caterpillar to supply autonomous haul trucks for the Rhyolite Ridge Project. We are pleased to continue to solidify our partnership with Caterpillar as we work towards commencement of production at Rhyolite Ridge. We continue to believe the incorporation of an autonomous haulage system and other Caterpillar technologies at Rhyolite Ridge will only further our goal to improve project safety and operational efficiency.”*

*“Progress continues to be made on permitting and with the DOE Loans Program Office, with tangible results in both workstreams expected in the coming quarter. The Project has maintained good momentum through the quarter and continues to progress toward a Final Investment Decision.”*

## Completion of Lithium Offtake Agreements

During the quarter, ioneer signed two binding lithium offtake agreements with the Ford Motor Company (Ford) and Prime Planet Energy & Solutions (PPES), a joint venture between Toyota Motor Corporation and Panasonic Corporation, which together with the EcoPro Innovations lithium offtake agreement signed in 1Q 2022, represents the completion of pre-production lithium carbonate supply commitments we currently intend to make for Rhyolite Ridge. The offtakes deliver on ioneer's strategy to ensure our lithium, produced in the U.S., is delivered into the U.S. supply chain for electric vehicles.

### Ford Offtake

Under the agreement, ioneer will deliver 7,000 tonnes per annum (tpa) of lithium carbonate to Ford over a 5-year term, starting in 2025. Ford intends to utilize ioneer's lithium carbonate to produce batteries for use in Ford electric vehicles through BlueOval SK, the Ford-SK On battery manufacturing joint venture. The agreement represents approximately 34% of annual output in the first 5 years of production.

### PPES Offtake

Under the Agreement, ioneer will deliver 4,000 tpa of lithium carbonate to PPES over a 5-year term. PPES will utilise ioneer's lithium carbonate to produce batteries for use in U.S. electric vehicles. The agreement represents approximately 19% of annual output in the first 5 years of production.

## Sales & Marketing

### Boric Acid Market and Price

Demand remains strong, and supplies from Rio Tinto and Etimine, the two major producers of boric acid globally, continue to be tight. However, with ocean freight prices dropping from Q2 2022, the Asia spot market price declined by approximately 10% compared to Q2 2022. In contrast, US pricing has remained stable from Q2, and early 2023 contract indications from Rio Tinto and Etimine suggest that they are reluctant to lower prices;

however, no material deals have been executed yet.

### Lithium Market and Price

According to Fastmarkets, Chinese lithium prices are up on persistent tight availability (higher spodumene costs). Seaborne East Asian prices strengthened similarly due to the tight market. In comparison, European and US lithium prices are moving up slowly amid buyer resistance.

## Autonomous Caterpillar Haul Trucks

In September 2022, ioneer and Caterpillar completed a Technology System Supply Agreement, related to the early adoption of a Cat® Command for hauling, Autonomous Haulage System (AHS), at Rhyolite Ridge for improved operator safety, equipment utilization and site productivity. This definitive agreement builds upon the Memorandum of Understanding signed last year and solidifies the early introduction of the technology.

The operations are scheduled to start in 2024 with a fleet of Cat 785 next generation mining trucks equipped with Command for hauling, and the fleet is scheduled to expand significantly in 2028. All support equipment will feature the latest MineStar™ technology utilizing high-precision GPS and real-time analytics to maximise efficiency and accuracy in material loading.

This will be the first greenfield operation in North America to utilize AHS and will mark the expansion of Command for hauling automation technology to the 140-tonne class Cat785 next generation mining truck.

## North Basin Exploration

An exploration program commenced at the North Basin, located 5km north of the South Basin (proposed operation). The North Basin was recognised as area with potential to host lithium and boron mineralisation and was first drilled by US Borax (Rio Tinto) in the 1980's and 1990's. ioneer completed a detailed gravity

survey covering the entire basin (results pending) and drill core samples from holes drilled by ioneer in 2017 were prepared for leach testwork. Further details will be provided in the coming months.

## State and Federal Permitting

ioneer requires three key permits to commence construction at Rhyolite Ridge:

1. A state-based Air Quality Permit<sup>1</sup> - **received** June 24, 2021
2. A state-based Water Pollution Control Permit<sup>2</sup> - **received** July 19, 2021
3. The Plan of Operation (Plan) that must be approved by the federal Bureau of Land Management (BLM) – submitted July 15, 2022

The Plan is the foundational federal permitting document for the Project and will become the basis for compliance during operations and closure. The Plan requires assessment under the National Environmental Policy Act (NEPA) process, which includes public consultation and preparation of an Environmental Impact Statement (EIS).

During the quarter, ioneer submitted a revised Plan that avoids direct impact on all Tiehm’s buckwheat. Since submitting the revised Plan, ioneer has worked with the various government agencies to progress it through review with the aim of having a Notice of Intent (NOI) published that would start the NEPA process. We have addressed U.S. Fish and Wildlife Service (FWS) and BLM concerns and are expecting the NOI to be published in the December 2022 Quarter and to move into NEPA.

Once the NOI is published, the BLM will hold a series of public scoping meetings to provide a description of the Project and allow for public comment. Comments are then collated and reviewed with potential changes and mitigation measures included in the Plan to address the public comments. This process

<sup>1</sup> Refer ASX release titled ‘ioneer Issued Air Quality Permit for Rhyolite Ridge’ announced 24 June 2021

ultimately culminates in an EIS and a Record of Decision (ROD). From the publishing of a NOI through to the ROD can take approximately 12 months, although the details that arise from public participation and BLM reviews may influence that timeline. Once the Plan has been approved via a ROD, construction of the Rhyolite Ridge Project can begin.

## ESG Program

### ISO 14001 Implementation

#### Gap analysis complete

Gap analysis is complete, and an implementation plan is being developed.

#### Implementation road map is underway

The gap analysis plan is being used to support the development of an Implementation Road Map. The Road Map will provide practical and prioritized steps and tasks to develop and implement an ISO 14001:2015-based EMS for the Project. It will include an estimated time of completion for major phases of ISO development and implementation as well as resources needed, and a suggested schedule based on the anticipated date of certification.

The Implementation Road Map will list recommendations for actions to be taken and provide a priority rating for each future action to provide guidance on the sequence of steps that will need to be taken to update the existing EMS to meet the new ISO 14001:2015 standard requirements.

### ESG Towards Sustainable Mining (TSM) Implementation

#### Ongoing and work completed

Steps to TSM Program Creation and Accreditation:

- TSM Protocol Review
  - Protocol Review
  - Finalize Protocols

<sup>2</sup> Refer ASX release titled ‘Issuance of Water Pollution Control Permit’ announced 19 July 2021

- Materiality Assessment
  - Determine Carbon Footprint
  - TSM Key issues
  - Identification of ioneer material issues
- ESG/Sustainability Target Setting
  - Consider all material issues
  - Confirm ioneer baseline
  - Set manageable interim and long-term targets
- Integration and Disclosure
  - TSM Protocol Integration
  - Material Issues Integration
  - ESG/Sustainability Guidance
- TSM Accreditation

**TSM protocol review** - TSM protocols have been developed and are being reviewed for completeness and conformance to TSM requirements. This includes a concordance table which identifies specific deficiencies and recommendations on how to address these deficiencies.

TSM Protocol	Status Update
Indigenous and Community Relationships	Final draft is being reviewed by ioneer
Crisis Management and Communications Plan	Final draft is being reviewed by ioneer
Safety and Health	Draft protocol developed and revision is underway
Preventing Child and Forced Labour	Final draft is being reviewed by ioneer
Biodiversity and Conservation Management	Final draft is being reviewed by ioneer
Water Stewardship	Final draft is being reviewed by ioneer
Energy Use and GHG Emissions Management	Final draft is being reviewed by ioneer

**Tiehm’s buckwheat Pollinator survey**

The fieldwork for the pollinator survey was successfully completed in the June quarter. A wide variety of insects were collected.

Laboratory analysis and evaluation continued in the September quarter. The work will be completed shortly.

**Tiehm’s buckwheat greenhouse propagation**

To support the propagation of Tiehm’s buckwheat, it was determined that a purpose-built greenhouse would improve propagation efforts. An 864 square foot temperature-controlled greenhouse capable of holding 13,000 seedlings and associated 720 square foot paired shade house capable of holding 600 adult plants have been procured. Site preparation and construction has commenced, with construction anticipated to be completed in Q4 2022.

In the interim, approximately 1200 previously collected seeds were cold stratified and approximately 460 seedlings germinated, potted and placed into a leased greenhouse. These plants will be used for seed bulking and potentially out-planting.

**Project Debt Funding**

At the end of the December quarter 2021, ioneer announced that the US Department of Energy (DOE) Loan Programs Office (LPO) had invited ioneer USA Corporation into the LPO’s due diligence process.

The March, June and September quarters saw good progress on the due diligence process. We have been working closely with the DOE’s external advisors on due diligence and are nearing the end of this process. Should the process be successful it would be followed by the announcement of a conditional term sheet.

In addition to the DOE workstream described above, the Company continues to engage with a number of potential debt financiers and is encouraged by staged work completed to date.

Sibanye-Stillwater and ioneer are working collaboratively to secure debt financing for the Project on acceptable terms to ensure the Project is fully financed at FID.

The debt funding strategy is expected to be in place by the end of 2022.

### Engineering and Vendor Packages

Work continued during the quarter to further progress detail and vendor engineering. The key aim of ongoing activities is to support construction mobilisation following the Full Notice to Proceed (FNTP) award.

Fluor’s EPCM team was strengthened with the appointment of a new Project Director, with the aim of supporting and expediting the vendor and engineering works.

ioneer advanced the procurement of the following packages:

- Start Up burner
- Ceramic Packing
- Sulphur Lances
- Zecor Liners and Strainers
- Compressed Air System
- Agitators
- Automated Packaging system

The receipt of vendor engineering allows continued detailed engineering to advance.

Additionally, ioneer is reviewing the construction plan sequence commissioning requirements to optimise the schedule and identify long lead items as more vendor data is now available.

Engineering continues to concentrate on updating detailed engineering deliverables for utilities, pumps, and other items to advance engineering deliverables to an “Issued for Construction” (IFC) status

#### Status of procurement activity:

Package Size	% Complete
Large (>US\$2.5M)	74%
Medium (US\$1M - 2.5M)	81%
Small (<US\$1M)	72%

Procurement activity has focused on long lead items and items required for initial

construction. Procurement continues to expedite supplier agreements to sustain the engineering deliverables schedule.

An open book contracting strategy has been frequently employed to minimize cost escalation risks.

### Upcoming Work Program

The work program over the coming months includes:

- Advancing federal permitting process by obtaining the NOI and commencing the NEPA process
- Securing debt funding including associated due diligence
- Updated Resource estimate for the South Basin to include low-boron and high-boron lithium streams
- Continuing exploration at the North Basin
- Continuing the engineering effort to further decrease execution risk. This will include:
  - Releasing further engineering and vendor packages/contracts for bid/award
  - ESG target setting activities
  - Completion of the greenhouse

### Corporate Activities

During the quarter, the Company announced the retirement of Julian Babarczy as a Non-Executive Director. The Board thanked Julian for his service to the company, with executive Chair, James D. Calaway noting his experience and measured approach had helped ensure the interests of our shareholders.

The Company announced the appointment of Stephen Gardiner as an independent non-executive Director to the Board, effective 25 August 2022. Stephen Gardiner has over forty years of corporate finance experience at major international companies listed on the ASX, culminating in 17 years at Oil Search Limited including eight years as Chief Financial Officer.

He has strength in capital management and funding and will chair the Audit & Risk Committee and be a member of the Nomination & Remuneration Committee.

In addition, in early July 2022, the Company advised it had renewed an executive employment agreement for Executive

Chairman James D. Calaway for a further 12-month period, effective July 1, 2022. In renewing this contract, Mr. Calaway continues his close level of involvement in the Company and its activities, with a particular focus on securing lithium offtake agreements, and with the recent NASDAQ listing, US investor relations and stakeholder meetings.

The Annual General Meeting will be held at 10:00 am (Sydney time) on Friday, 4 November 2022. Shareholders are invited to attend the AGM at Cliftons Venues Sydney, level 13, 60 Margaret Street, Sydney and online. The detailed agenda and instructions to participate in the meeting can be found on the ioneer website.

## ASX Additional Information

The Company provides the following information pursuant to ASX Listing Rule requirements.

1. **ASX LR 5.3.1:** Exploration and Evaluation Expenditure during the quarter was

US\$10.1 million. Details of the exploration activity are set out in this report. A breakdown of the expenditure is shown below:

Expenditure	US\$'000
Exploration	97
Engineering	8,802
Environmental	723
Sales & Marketing	201
Other	295
<b>Total</b>	<b>10,118</b>

2. **ASX LR 5.3.2:** The Company confirms there were no production or development activities during the quarter.
3. **ASX LR 5.3.5:** Related party payments for the quarter totalled US\$579K, comprising salaries and fees for the Company's executive and non-executive directors. No other payments were made to any related parties of the entity or their associates.

## Capital Structure

Total cash and cash equivalents as of September 30, 2022 was US\$97.0 million of which 52% was held in USD with the balance held in AUD. Ioneer has adopted USD as its reporting currency from July 1, 2022.

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

- 2.1 billion ordinary shares
- 4.4 million options, and
- 29.6 million performance rights.

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

--ENDS--

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## 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. The Definitive Feasibility Study (DFS) completed in 2020 confirmed Rhyolite Ridge as a world-class lithium and boron project that is expected to become a globally significant, long-life, low-cost source of lithium and boron vital to a sustainable future. In September 2021, ioneer entered a 50/50 joint venture agreement with Sibanye Stillwater Ltd to advance the Rhyolite Ridge project. The Company has signed lithium offtake agreements Ford Motor Company, PPES (joint venture between Toyota Motor Corporation and Panasonic Corporation) and EcoPro Innovation. ioneer will be the operator of the Project, which is expected to come onstream in 2025.

## Recent Announcements

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

Date Released	Title
01/07/2022	Appendix 2A, 3H and 3Y
01/07/2022	Form 604 – Centaurus Capital
01/07/2022	Ioneer Commences Trading on Nasdaq
04/07/2022	Retirement of NED – Julian Babarczy
08/07/2022	Form 604 – Centaurus Capital
15/07/2022	Appendix 2A – Chad Yeftich
22/07/2022	Ford Offtake Agreement
25/07/2022	June 2022 Quarterly & Appendix 5B
25/07/2022	Renewal of Executive Chairmans employment Contract
29/07/2022	Appointment of new NED – Stephen Gardiner
01/08/2022	Appendix 2A – Yoshio Nagai
01/08/2022	PPES Offtake Agreement
15/08/2022	Appendix 3Y – Maggi Walker
25/08/2022	Appendix 3X and 3G – Stephen Gardiner
08/09/2022	Date of 2022 AGM
12/09/2022	Appendix 3G – Award of 2022 LTIs
16/09/2022	Autonomous Caterpillar Haul Trucks for Rhyolite Ridge
21/09/2022	Annual Report to Shareholders
21/09/2022	Appendix 4G
21/09/2022	Corporate Governance Statement – 30 June 2022
30/09/2022	Notice of Annual General Meeting/Proxy Form

## Appendix 1 - Schedule of Tenements

### ASX listing rule 5.3.3

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%, option to purchase 100%	0%, option to purchase 100%	No change
USA	Rhyolite Ridge	NV105272779	RMS claims (23)	0.5	100%	100%	No change
USA	Rhyolite Ridge	NMC1147932	SLP Claims (120)	9.7	100%	100%	No change
USA	Rhyolite Ridge	NV105272053	PR Claims	0.9	100%	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

On 16 September 2021, the Company announced a strategic investment by Sibanye-Stillwater<sup>3</sup> in the Rhyolite Ridge Project. Under the terms of the agreement, Sibanye-Stillwater will contribute US\$490 million for a 50% interest in the Joint Venture, with Ioneer to maintain a 50% interest and retain operatorship. Ioneer has also agreed to provide Sibanye-Stillwater with an option to participate in 50% of the North Basin, upon the election of Sibanye-Stillwater to contribute up to an additional US\$50 million, subject to certain terms and conditions. Establishment of the Joint Venture and Sibanye-Stillwater's funding commitment is subject to certain terms and conditions precedent, including receipt of final permits, commitments for remaining debt financing, and other customary approvals.

<sup>3</sup> Refer ASX release titles 'Sibanye-Stillwater to invest US\$490M in Rhyolite Ridge' announced on 16 September 2021