

RHYOLITE RIDGE NEWSLETTER

FEBRUARY 2021

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PRESIDENT'S MESSAGE

Dear Readers,

I first want to wish a healthy and prosperous 2021 for you and your families as we continue battling the global pandemic. While international travel restrictions have kept me away from Fish Lake Valley, I follow local news closely and want to especially acknowledge those in the community who have been directly impacted by the virus. Having spent so much time in Fish Lake Valley over the last many years, I know how resilient people in the community are, and look forward to returning as soon as I am able.

loneer has continued to make steady progress towards the development of Rhyolite Ridge and have in recent weeks made a series of important announcements - many of which are covered in this newsletter. I am particularly pleased to announce the addition of two new non-executive Directors members to the loneer Board. Rose McKinney-James is a long-time Nevada-based environmental business and renewable energy policy expert while Margaret R. Walker has extensive chemical, engineering and construction experience stemming from her 36 years at Dow Chemical Company. As Rhyolite Ridge project development continues, the complementary skill sets and experience that these two new members bring the Board will be crucial.

While I will return to Nevada as soon as I am able, in the meantime I hope that you can join myself and my loneer colleagues during a virtual community meeting that will be held Thursday March 11, through the Zoom platform beginning at 6:30pm.

Bernard Rowe
President

DRAGONFLY ENERGY

In December 2020, Ioneer and local Nevada company Dragonfly Energy (Sparks) [announced the completion of Memorandum of Understanding](#) that outlines how the two companies plan to work together in the coming years to collaborate to strengthen the domestic battery supply chain and creating jobs in Esmeralda County and all-across Nevada.

Dragonfly Energy is the company behind the highly successfully and popular brand of deep-cycle lithium-ion batteries - "Battle Born Batteries".



If you were to purchase a new RV today - there is a good chance that it will be equipped with a Battle Born Battery!"

IONEER LITHIUM HYDROXIDE UPDATE

On January 21, [we announced](#) that our metallurgy and process engineering team successfully converted lithium carbonate at its pilot plant, into battery grade lithium hydroxide - demonstrating Ioneer's ability to provide this crucial material to the burgeoning electric vehicle battery sector.

The increased cost to convert lithium carbonate to lithium hydroxide is due mainly to energy (power and heat) and reagent requirements. However, owing to Rhyolite Ridge's unique mineralogy, where processing ore into lithium carbonate generates excess steam and power, and the recycling of lime-calcium carbonate, we expect to produce lithium hydroxide at a very competitive cost.

Lithium hydroxide is the second largest chemical produced by the lithium industry and has recently had the highest growth rate of all lithium products.

This trend is expected to continue due to the growth in higher-nickel chemistry cathode materials for automotive and energy storage markets. Demand for battery grade lithium hydroxide is expected to overtake that of battery grade lithium carbonate in 2021.



The 3 materials that Ioneer will produce from Rhyolite Ridge: Boric Acid, Lithium Hydroxide, Lithium Carbonate in final product form.

Ioneer has successfully produced boric acid, lithium carbonate, and now lithium hydroxide from Rhyolite Ridge ore - all vital materials for the realization of a lower carbon future and a more sustainable planet.

TIEHM'S BUCKWHEAT CONSERVATION

During the quarter, Ioneer maintained its commitment to the preservation of Tiehm's buckwheat, including through its research partnership with the University of Nevada, Reno (UNR). [In January 2021, the Company announced](#) the results of a 13-month UNR study which sought to assess:

- the abundance and diversity of arthropods (insects and other groups) around the plant populations
- the importance of pollination for seed set
- how seedlings respond to soil variation
- test the viability of greenhouse propagation and seedling transplant into the wild
- count and monitor existing plants.

The report greatly advances existing knowledge of Tiehm's buckwheat and creates the foundation for future efforts to ensure long term protection, and uplift of the plant in its natural habitat at Rhyolite Ridge. Consistent with the Company's commitment to the environment and desire to ensure a sustainable buckwheat population

at Rhyolite Ridge, Ioneer will expand the scope of its work and transition monitoring efforts to commercial research partners who are assisting in the development of protection and conservation efforts while also continuing to collaborate with academic researchers to determine the best ways to preserve this species for generations to come.



Importantly, this is the first study of its type to be completed for Tiehm's buckwheat and the first study of any kind on the plant in over 10 years.

In addition, on February 9, Ioneer announced that it has begun working with The Conservation Fund, one of the largest non-profit environmental groups in the United States, and that they have commenced work with federal agencies on Tiehm's buckwheat conservation strategies. [The Conservation Fund](#) works with public, private, and non-profit partners to protect America's legacy of land and water resources and will be a valuable partner as Ioneer works to protect, conserve and uplift the Tiehm's buckwheat species.

IONEER WELCOMES TWO NEW NON-EXECUTIVE DIRECTORS TO ITS BOARD, ROSE MCKINNEY-JAMES AND MARGARET WALKER

On February 2, 2021 - [Ioneer announced the appointment](#) of two U.S. based Independent Non-Executive Directors to its board: Rose McKinney-James and Margaret R. Walker.

Rose McKinney-James is a Nevada-based expert in environmental business and technology policy, renewable and clean energy advocacy, and sustainable development.



Rose previously was Director at the Department of Business and Industry, Nevada's largest state agency, and was recognized for her innovation providing efficient and advanced services to the Nevada business community.

Margaret Walker is a Texas-based chemical engineer with significant experience working across the chemical, engineering and construction sectors.



She spent 36 years at NYSE-listed Dow Chemical Co, including six years (2004-2010) as Vice President Engineering and Technology Centers. Her experience spanned operations, engineering, supply chain and business leadership.

SUPPLIER NEWS

OPTIMUS INDUSTRIES

We are proud to partner with Optimus Industries (Tulsa OK) in the development of our waste heat recovery system (boiler, superheater, and economizer) which will help allow Rhyolite Ridge to utilize carbon-free off-grid energy while producing high-grade lithium products as one of the lowest-cost producers in the world.

HOWDEN

Ioneer has partnered with Howden to supply a state-of-the-art turbo compressor for the Rhyolite Ridge processing facilities - a key component of the process used to extract lithium and boron from the Project's unique searlesite ore. The compressor will be assembled and packaged in Springfield, MO prior to shipment to the Rhyolite Ridge site.

CATERPILLAR

On February 16, 2021, [ioneer announced the completion of a joint automation study conducted with Caterpillar](#), the world's largest manufacturer of construction and mining equipment, and the Cat dealer for Nevada, Cashman Equipment Company. The study targets the early introduction of Cat® Command for hauling, Autonomous Haul System (AHS) at Rhyolite Ridge for improved safety, equipment utilization and site productivity.

With the study complete, Rhyolite Ridge appears to be a very favorable candidate for AHS and Ioneer and Caterpillar have signed a memorandum of understanding to move the initiative forward. .

This will be the first greenfield operation in North America to utilize AHS; however, Cat autonomous mining trucks have safely hauled more than 2.2 billion tons of material worldwide, driving over 42.0 million miles without a lost-time injury.

The announcement furthers Ioneer's goals of improving project safety and operational efficiency while partnering with as many Nevada-based businesses as possible.

PERMITTING UPDATE

On February 10, [Ioneer provided an update](#) on the recent Biden Administration transition and its impact on Ioneer's Rhyolite Ridge Project timeline. As with any change in administration, there is a natural transition period during which there will be personnel changes throughout the Federal Government, including the relevant authorities for approving the permitting for Rhyolite Ridge. We have been advised that no permit assessments or publication of decisions will be made until the new personnel are in place, something we believe will occur within the next 60 days.

Ioneer is currently awaiting the publication by the BLM of the Notice of Intent as part of the NEPA and public comment/scoping processes that all projects on federal land must undertake. Coupled with the continuing challenges all parties face due to COVID-19, Ioneer now

expects the final Record of Decision, which would allow construction to begin at Rhyolite Ridge, to be made in the fourth quarter of 2021.

Through Executive Actions signed, and comments made by the new Secretaries of Energy and Treasury, Ioneer is encouraged by the Administration's desire to transition towards electric transportation and the development of a domestic lithium-ion battery materials supply chain. We look forward to Nevada and Rhyolite Ridge being a key part of this effort.

UPCOMING VIRTUAL COMMUNITY MEETING: THURSDAY, MARCH 11TH AT 6:30PM

We are pleased to announce that Ioneer will be hosting a virtual community meeting through Zoom on Thursday March 11th, beginning at 6:30PM. The event will feature an update from Ioneer President Bernard Rowe on the ongoing planning and development for Rhyolite Ridge. There will also be an opportunity for you, the community, to ask any questions you may have for Bernard or the Ioneer team.

We want to extend an invitation to everyone in the community!

To receive an invitation electronically, please send an email requesting an invitation to tfalk@ioneer.com.

We will also post flyers closer to the date around Dyer with dial-in/log-in information.

We hope to see you there!

Please be sure to visit
ioneer.com
and
therhyoliteridgeproject.com
for further Rhyolite Ridge updates





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AND A BETTER WORLD.**

IONEER USA CORPORATION

9460 Double R Boulevard
Suite 200
Reno, NV 89521

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