TSX-V: MNRL | FSE : BE5 | OTC : MNMRF

Lithium Brine & Heavy Rare Earths

Exploration in the Americas

MONUMENTAL MINERALS

INVESTOR PRESENTATION

JULY 2022

Forward Looking Statement

- This presentation includes certain statements that constitute “forward-looking information or statements” within the meaning of applicable securities law, including without limitation, the Company’s plans for its properties/projects, other statements relating to the technical, financial and business prospects of the Company, completing additional work on the projects, timelines, completion of the option terms to acquire the projects, the Company’s mission statement and other matters.

- Forward-looking statements address future events and conditions and are necessarily based upon a number of estimates and assumptions. These statements relate to analyses and other information that are based on forecasts of future results, estimates of amounts not yet determinable and assumptions of management. Forward-looking statement are necessarily based upon a number of factors that, if untrue, could cause the actual results, performances or achievements of the Company to be materially different from future results, performances or achievements express or implied by such statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which the Company will operate in the future, including the price of metals and minerals, anticipated costs and the ability to achieve goals, that general business and economic conditions will not change in a material adverse manner, that financing will be available if and when needed and on reasonable terms, and that third party contractors, equipment and supplies and governmental and other approvals required to conduct the Company’s planned exploration activities will be available on reasonable terms and in a timely manner.

- Such forward-looking information reflects the Company’s views with respect to future events and is subject to risks, uncertainties and assumptions, including the risks and uncertainties relating to the interpretation of exploration results, risks related to the inherent uncertainty of exploration and cost estimates and the potential for unexpected costs and expenses and those other risks filed under the Company’s profile on SEDAR at www.sedar.com. Relating to exploration, the identification of exploration targets and any implied future investigation of such targets on the basis of specific geological, geochemical and geophysical evidence or trends are future-looking and subject to a variety of possible outcomes which may or may not include the discovery, or extension, or termination of mineralization. The key risks related to exploration in general are that chances of identifying economical reserves are extremely small.

- For further scientific and technical information with respect to the Jemi Rare Earth Property refer to the Company’s NI 43-101 Technical Report titled: Geology of the JEMI Rare Earth Property, Municipality of Ocampo, Coahuila State, Mexico, with an effective date of October 20, 2021. The scientific and technical information contained in this presentation has been reviewed and approved by Kris Raffle, P.Geo., a Director of the Company and a Qualified Person as defined by National Instrument 43-101 – *Standards of Disclosure for Mineral Projects*.

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- **Market & Industry Data**

- The information contained herein includes market and industry data that has been obtained from third party sources, including industry publications. The Company believes that its industry data is accurate and that its estimates and assumptions are reasonable, but there is no assurance as to the accuracy or completeness of this data. Third party sources generally state that the information contained therein has been obtained from sources believed to be reliable, but there is no assurance as to the accuracy or completeness of included information. Although the data is believed to be reliable, the Company has not independently verified any of the data from third party sources referred to in this presentation or ascertained the underlying economic assumptions relied upon by such sources.

Mission Statement

"To define, acquire and develop monumental assets in order to unlock tremendous value for our shareholders"

ESG Statement

"Monumental Minerals is committed to sustainable development in harmony with its surroundings, business ethics, and the promotion of human rights in conformity with applicable national and international standards and adhering to the highest standards of corporate governance, social accountability, and environmental stewardship"

Monumental Minerals – Investment Opportunity

Monumental Minerals Corp. is a mineral exploration company focused on the acquisition, exploration and development of mineral resource properties in the critical metals sector.

We are well positioned for the strong and growing global energy transition, and clearly recognize that a departure from fossil fuels is a move towards sustainably acquired critical metals.

Two high merit projects:

- The Laguna Blanca cesium sediment-lithium brine salar project is located within the lithium triangle, Antofagasta Region, Chile.
- The Jemi heavy rare earth (HREE) project located in Coahuila, Mexico near the Texas, USA border.

Management and Board

Dr. Jamil Sader
CEO and Director

Dr. Jamil Sader obtained his Ph.D. from the University of Ottawa. He has over 20 years of experience in the mineral resource industry and has held international senior technical and management positions including at MMG Resources, Bureau Veritas Minerals, and most recently with Anglo American. His extensive experience, from field geologist to senior management, has provided Dr. Sader a deep understanding across many facets of critical, base, and precious, metals, and an extensive global network of industry professionals. Dr. Sader is also a technical advisor for Aguila Copper Corp.

Maximilian Sali
VP Corp. Dev and Director

Maximilian Sali was corporate development and a founding shareholder of Advantage Lithium Corp which was acquired by producing lithium company Orocobre, now Allkem for $69 million on February 18, 2020. Mr. Sali is the founder, director and former CEO of Defense Metals Corp. (TSXV: DEFN) a rare earth company that recently completed a PEA on its Wicheeda LREE deposit in British Columbia. He is the founder, director and former CEO of New Placer Dome Gold Corp which was acquired by Copaur Minerals on May 13, 2022.

Kris Raffle
Director &QP

Mr. Raffle, B.Sc., P.Geo., serves as the Qualified Person for the Company. Mr. Raffle is also a director of New Placer Dome Gold Corp. (TSXV: NGLD), Canadian Rare Earth Element focused Defense Metals Corp. (TSXV.DEFN) and is a Partner and Principal Geologist with Edmonton-based geologic consulting firm APEX Geoscience Ltd. Mr. Raffle has over 20 years' North American-focused base and precious metals exploration experience.

Michelle DeCecco, MBA
Director, audit committee chair

Michelle has over 20 years of experience in the public sector specializing in capital markets, security regulations and corporate development. Throughout her career, Ms. DeCecco has been responsible for developing and executing overall corporate strategy including acquisitions, joint ventures, strategic partnerships, with a strong focus on shareholder communications. Michelle is the Vice President of Lithium Chile Inc. and holds a Master's in Business Administration receiving honours in both accounting and finance.

Ryan Cheung
CFO & Director

Ryan Cheung, CPA, CA, provides accounting, management, securities regulatory compliance services to private and public-listed companies. Mr. Cheung also serves as an officer and/or director of a number of public-listed companies. Mr. Cheung holds a Bachelor of Commerce degree from the University of Victoria and is a member of the Chartered Professional Accountants of British Columbia.

Advisory Board

Mark Saxon, FAusIMM, MAIG

Senior Rare Earth Technical Advisor

Mr. Saxon brings thirty years of experience in the resources industry, representing junior and senior companies in Australia, Canada and Europe. An Honours BSc graduate in Geology from the University of Melbourne, he received a Graduate Diploma of Applied Finance and Investment in 2007. Mr. Saxon's experience covers most facets of the exploration and mining business in a wide range of geological environments, with a particular focus on discovery, processing, marketing and the political context of critical raw materials. Mr. Saxon has extensive experience in the exploration of peralkaline REE deposits.

Cal Everett, B.Sc

Technical Advisor

Mr. Everett is a geologist with more than 20 years of surface and underground exploration experience with senior mining companies. He moved to the financial sector in 1990 and spent 12 years with BMO Nesbitt Burns focused on resource equities, and seven years with PI Financial Corp. in senior resource institutional sales and capital markets. From 2008 to 2015, he was President and Chief Executive Officer of Axemen Resource Capital. Mr. Everett holds a Bachelor of Science degree in Economic Geology from the University New Brunswick. Mr. Everett is currently Chief Executive Officer and president of Liberty Gold Corp. (TSXV: LGD)

Dan Harmening

Technical Advisor

Dan Harmening is a Professional Land Surveyor and prospector with over 25 years of experience in the minerals exploration and mining business. He is the President, CEO and cofounder of Lago de Oro Resources and cofounder of 3rd Rock Exploration, both registered in USA and Mexico. Mr. Harmening is currently negotiating a sale agreement of Lago de Oro Resources SA de CV Mexico to a Canadian junior mining company. Previously, he vended several projects in Mexico, including the Jemi Rare Earth property into what is now Discovery Silver Corporation. He has facilitated over $40 million in private placements and open market investments in junior mining companies, and has consulted to several companies leading to major deposit discoveries in Nevada. Mr. Harmening holds a B.S. in Geomatics from Oregon Institute of Technology.

Craig Taylor

Strategic Advisor

Mr. Taylor is currently the CEO of Defense Metals (TSXV: DEFN) an advanced LREE exploration company that most recently completed a PEA on the Wicheeda Rare Earth deposit located in Prince George, British Columbia. From March 2008 until December 2016, Mr. Taylor was CEO of Saber Capital Corp., a former capital pool company, which was acquired by Aleafia Health in a $173mm transaction. In addition, he was a director of Valor Ventures, CPC that completed at QT with Advantage Lithium and was eventually acquired by Orocobre. Mr. Taylor was a founding director of Clear Mountain Resources Corp., a TSX-V listed company (now named Patriot One Technologies Inc.). Mr. Taylor has served as director and officer of several other public companies engaged in mineral exploration and development.

Portfolio Overview

Laguna Blanca Lithium-Cesium Project, Antofagasta Region, Chile

- Earning 75%
  - CAD $1.5M exploration spend by March 2025
  - CAD $1.5M in cash through by 2025.

- The Project is located within the prolific lithium triangle, a zone within the central Andes high desert that includes Chile, Argentina, and Bolivia. The Project consists of 23 exploration concessions totaling 5,200 hectares, 100% owned by Lithium Chile through its wholly owned Chilean subsidiary Minera Kairos Chile Limitada.

Jemi Peralkaline HREE Project Coahuila, Mexico

- Earning 100%
  - $2M USD exploration spend by March 2024
  - $500k USD in stock issued by March 2024
  - Discovery Silver has a 1.5% NSR.

- Project is within the North American Alkaline Igneous Belt, which hosts several REE deposits and showings. The Project is at the exploration-stage and is drill-permitted. Access to the 3,560-hectares Project is by road, and there are operating silver and fluorite mines near by.

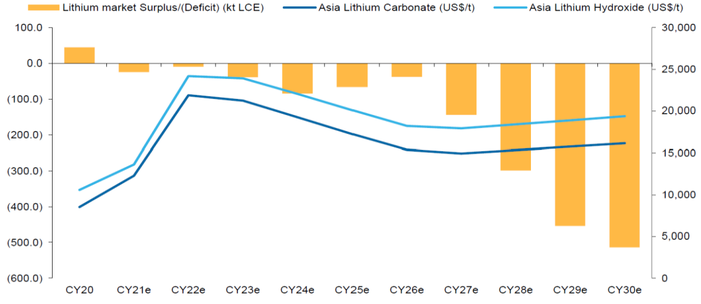
Lithium

Demand

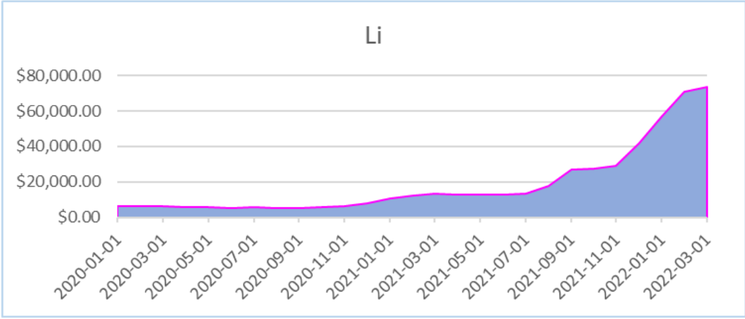
- Like REEs, the demand for lithium has outstripped supply. It is a key element required in the global transition away from the internal combustion engine.
- The lithium market is in a deficit, which will widen significantly from 2027 onwards, and more new sources will be required to meet the shortfall.
- The Biden Administration understands this lithium shortfall and is providing financial support for lithium extraction companies.

Value

- Lithium spot price has increased over 500% over the past 2 years.
- Brine operations have higher economic performance and value compared to hardrock (pegmatite) lithium.
- Direct Lithium Extraction (DLE): The technology has lower CAPEX and OPEX compared to conventional evaporation methods.



Source: Bloomberg, Company data, Macquarie Research, December 2021.



Source: Ginger International Trade & Investment Pte.

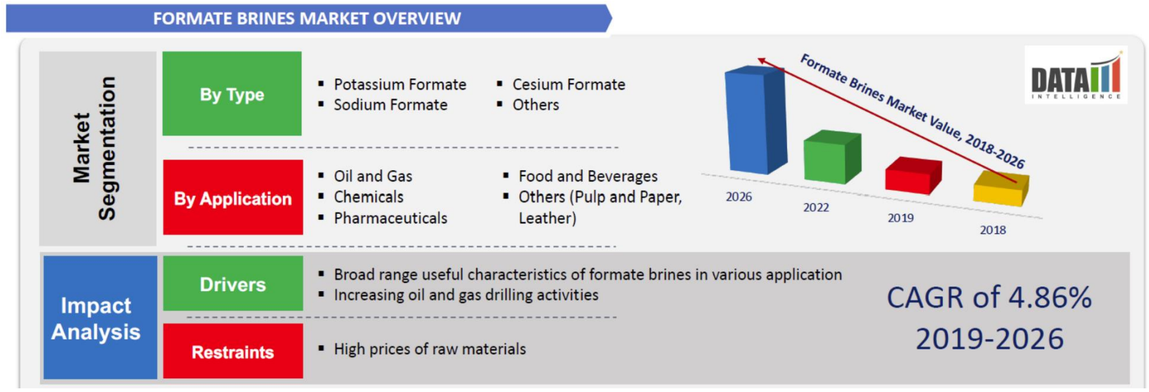
Cesium

Demand

- Cesium is a less understood rare mineral with high value.
- Scarce resource: oil companies commonly lease or rent cesium formate for drilling, as much of it can be recovered (about 85%).
- Currently, almost the entire global cesium supply comes from the Tanco mine, a hard rock deposit in Manitoba, Canada. The Chinese owners send 100% of the concentrate to China for refinement.

Value

- Metal spot price is almost impossible to determine.
- From USGS (2019):
  - The value of 1-gram ampoules of 99.8% cesium ranged from $63 to $81.
  - The prices for 50 grams of 99.9% cesium acetate, cesium bromide, cesium carbonate, cesium chloride, and cesium iodide were $118.20, $71.90, $101.80, $103.60, and $117.00 respectively.



Source: DataM Intelligence 4Market Research

Portfolio Metals

Lithium

- This metal is primarily used for batteries. Lithium ion batteries are highly desirable for EVs and consumer electronics due to their light weight, high energy densities, large amounts of current, low maintenance, and no memory effect.
- Demand for lithium is expected to increase by a factor of 18-20 over the next 30 years.

Cesium

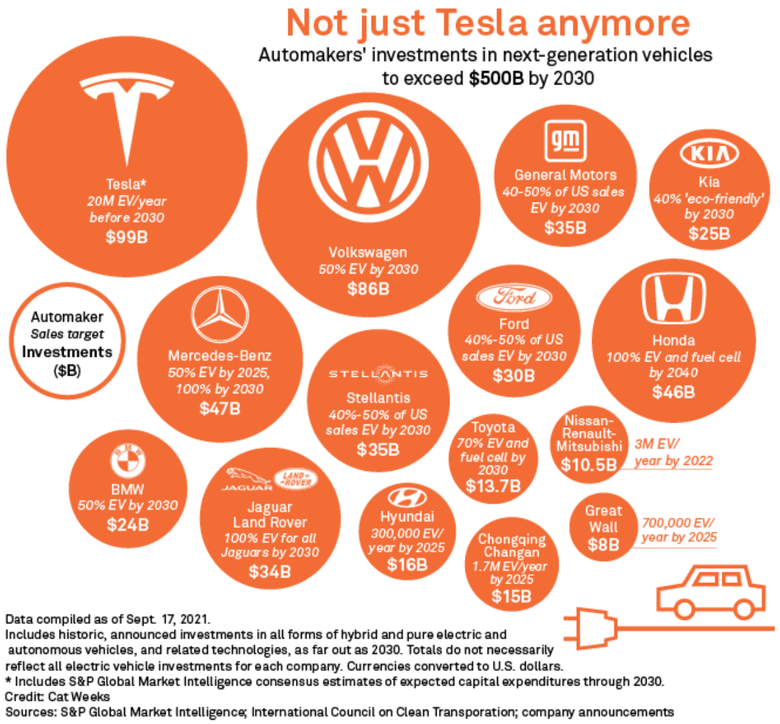
- 5G and the Internet of Things (IoT): Cs is critical in atomic clocks that keep vast communication networks in sync.
- The largest consumer of cesium is the oil and gas exploration sector. Cesium formate is added to drilling fluids to lubricate drill bits, to bring rock cuttings to the surface, and to prevent blowouts in high pressure wells. It is the preferred drilling fluid as it is non-toxic.

Terbium & Dysprosium

- Although neomagnets with LREEs are perfect for high-powered EVs, they lose magnetism over 60-80°C. The addition of HREEs terbium or dysprosium can mitigate this problem by providing optimal magnetism to 160°C.
- The addition of dysprosium with praseodymium increases a magnet's coercivity (the resistance of a magnetic material to change in magnetisation).

Neodymium & Praseodymium

- LREEs are dominantly used to produce an alloy with iron and boron to make very strong $Nd_2Fe_{14}B$ permanent magnets. These magnets are dominantly used for EV motors and in wind turbines.
- Other key drivers for these elements include conventional automotive parts, inverter air conditioners, electronic consumables.



Statistics

- The average neomagnet for EVs contain 24% Nd, 7.5% Dy, and 6% Pr.
- The average EV passenger vehicle uses up to 10 kg of REE magnets.
- The average EV battery uses 8-10 kg of lithium.

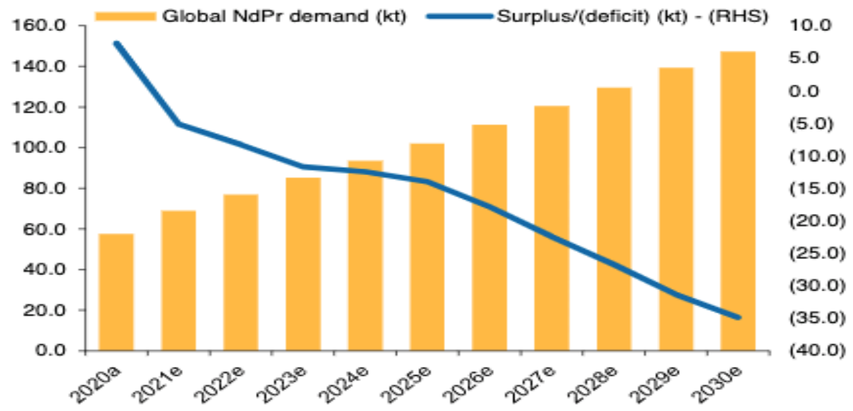
REEs

Demand

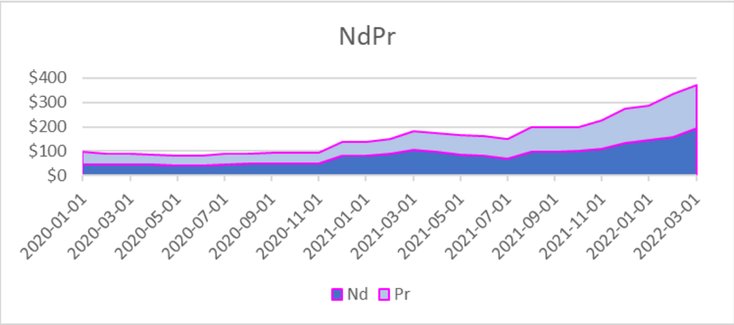
- Demand is expected to outstrip supply until at least 2030 due the increase in demand for neomagnets for EVs and other electric motors (e.g., wind turbines, water pumps).
- South China ionic clay deposits are the primary source of the world's HREE, but there are several geopolitical, supply chain, and ESG concerns:
  - A bi-partisan US Senate bill will prevent defense contractors from buying Chinese-sourced REEs.
  - The Biden Administration has identified HREEs as strategic metals and plans to stockpile them. They also plan to provide financial incentives to domestic companies that extract and refine them.
  - The manufacturing sector is looking for REEs from sources that have robust ESG controls.

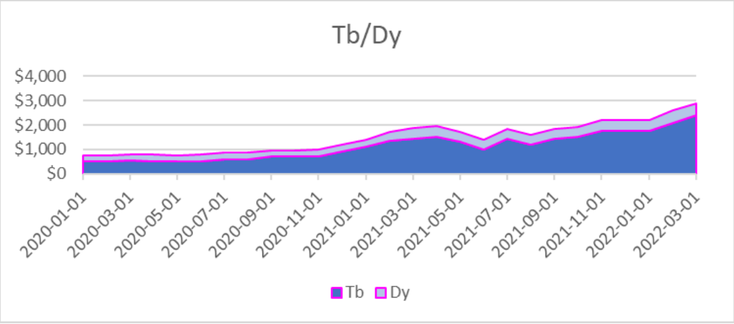
Value

- NdPr, Tb, and Dy spot prices have increased up to 430% over the past 2 years (as of March 1, 2022).
- Four key REEs represent 94% of the REE market by value. They are used almost exclusively for the manufacture of magnets.
  - **Terbium,**
  - **Dysprosium,**
  - **Neodymium,**
  - **Praseodymium.**
- All 4 of these elements are enriched at Jemi.



Source: Bloomberg, Macquarie Research, December 2021





Source: Ginger International Trade & Investment Pte.

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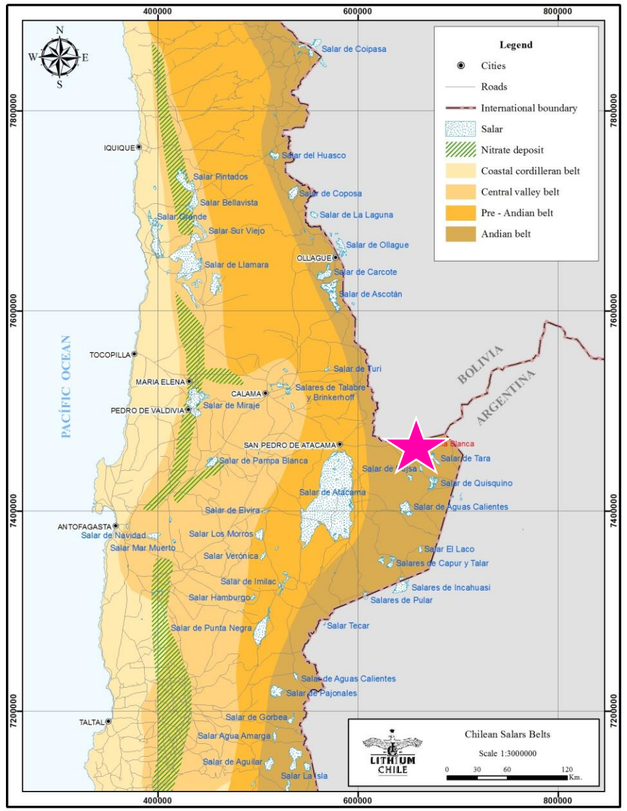
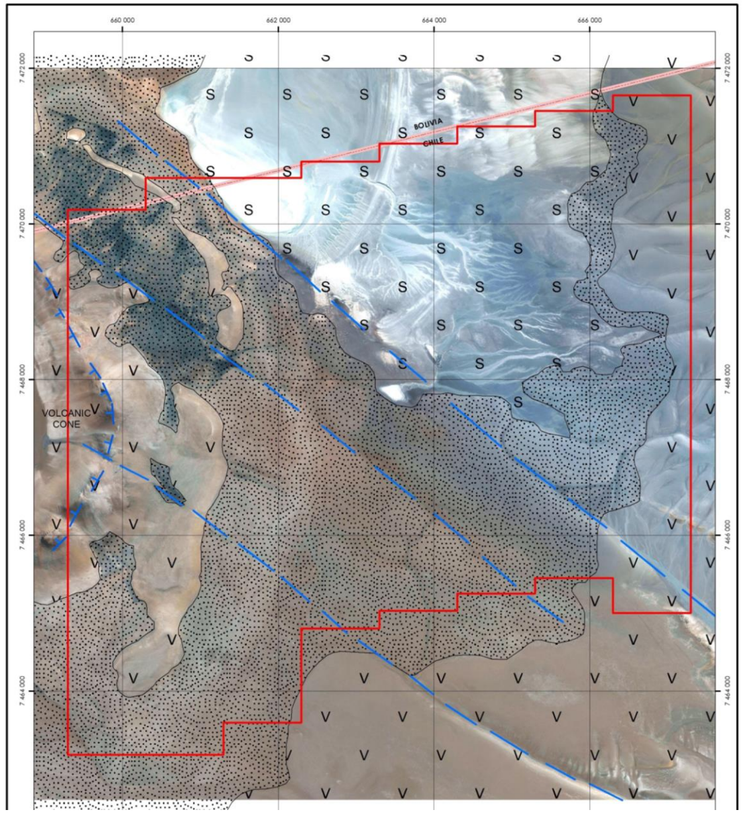
EXPLORATION PORTFOLIO

Laguna Blanca Lithium-Cesium Project

- The Laguna Blanca Project is located within the heart of the prolific lithium triangle, a zone within the central Andes high desert that includes Chile, Argentina, and Bolivia.
- The Project consists of 23 exploration concessions totaling 5,200 hectares, 100% owned by Lithium Chile through its wholly owned Chilean subsidiary Minera Kairos Chile Limitada.

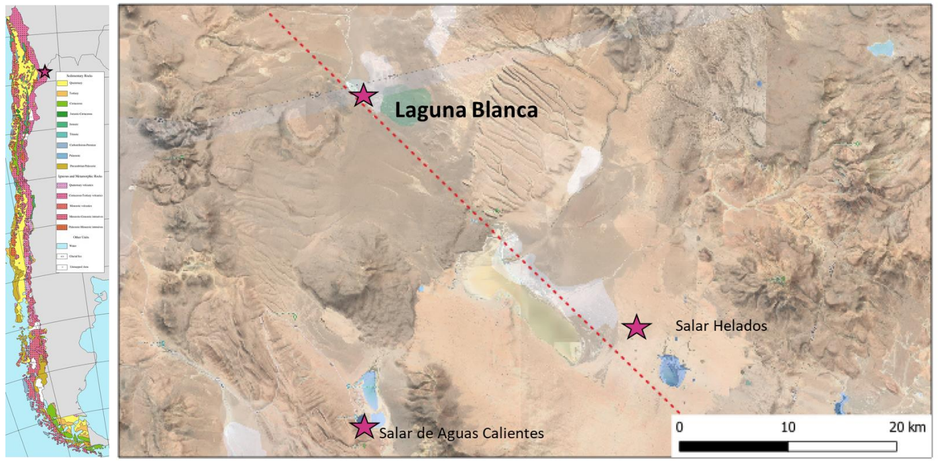




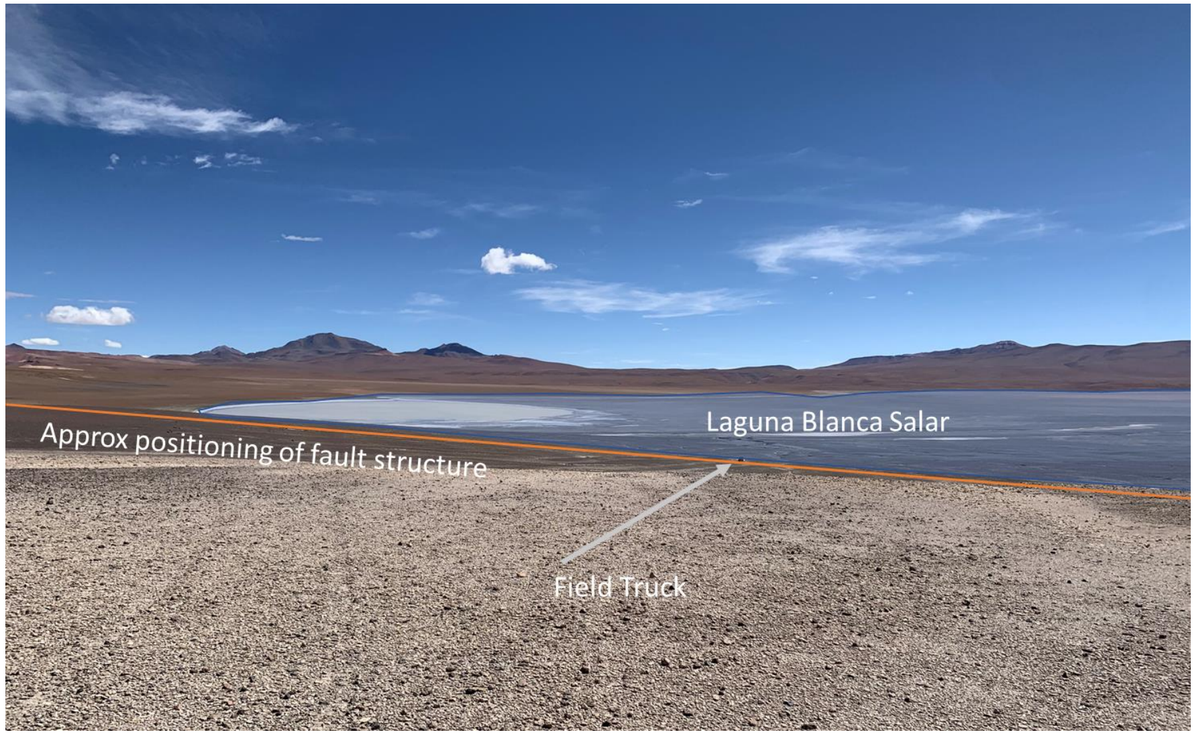
Laguna Blanca - Geological Setting

- The long axis of the Laguna Blanca Salar is controlled by a major northwest-southeast trending fault, interpreted to provide a structural conduit promoting brine interaction with felsic volcanics, including thick sequences of ignimbrites (volcanic ash), from which lithium and cesium were leached, transported, and subsequently concentrated in brines and sediments within the Laguna Blanca Salar.

- Other salars in the area, including Salar De Helados (100% owned by Lithium Chile) were also visited by the Company during the site visit that related to this same fault structure.

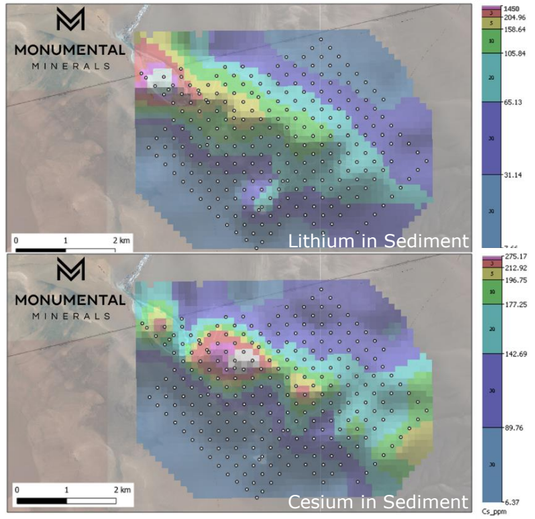


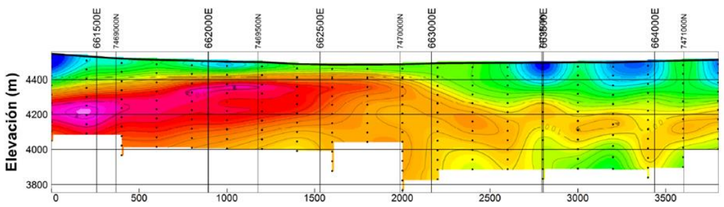
Red dotted line represents the fault

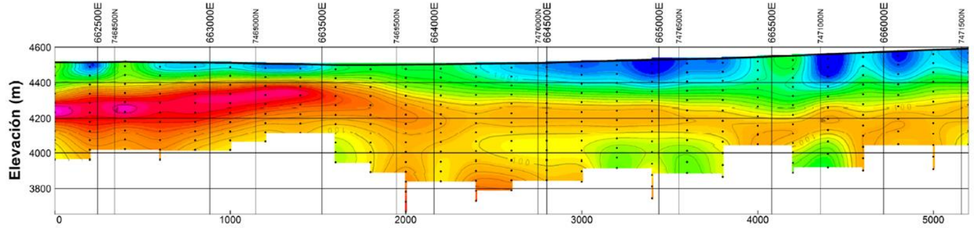


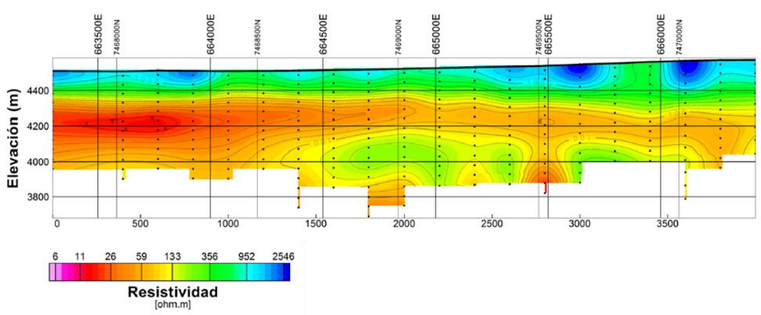
Laguna Blanca - Exploration

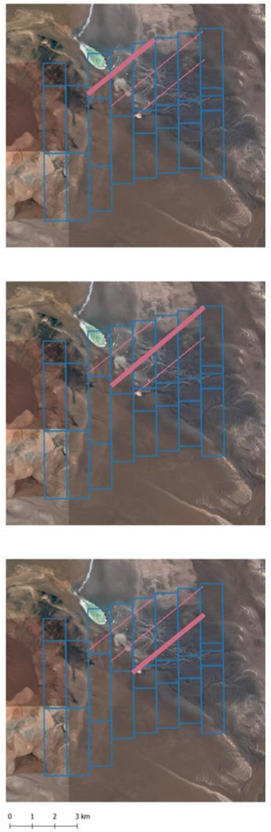
- Exploration by Lithium Chile demonstrated:
  - Sediment:
    - Values including 0.069% cesium and 0.145% lithium.
  - Near-Surface Brine:
    - samples taken from the surface lagunas and subsurface samples from shallow 0.5 – 1.3 m deep hand auger holes.
    - 20 – 40 mg/l cesium and 780 – 1,230 mg/l lithium.
  - TEM Geophysical Survey:
    - Identified a 10 km^2 high conductivity anomaly having 100-200 m modelled thickness that underlies the SW flank of the lithium – cesium anomaly.











Laguna Blanca – Planned Exploration

Further exploration work will include:

In progress:

- Shallow impact auger holes (1m – 1.5m depth) – *Results Pending*

In planning:

- Core drilling to test surface geochemistry and TEM anomalies.
- Solid sediments – core recovery for porosity determination (extractable brine)
- Brine flows
- Vertical and lateral variations
- Correlate brine intervals and porosity/lithology – downhole geophysics

Direct Lithium Extraction (DLE) Technology:

- Lithium Chile is assessing Direct Lithium Extraction (DLE) technologies, including adsorption, ion exchange, and enhanced evaporation methods.

Jemi HREE Project

- Situated very close to Texas, a fast-developing North American hub for the REE industry.
  - Processing of REE ore from Mt Weld (Lynas Corp) at Blue Line Corp in Hondo, TX.
  - Deal between MP Materials and GM in Ft Worth, TX.
  - Newly constructed Tesla Giga Factory, Austin, TX.
- Stable mining jurisdiction.
- Skilled work force.
- Lack of great HREE deposits in North America based on grade, jurisdiction, and remoteness.
  - Mountain Pass lacks HREEs;
  - Round Top has HREEs but is low grade (about the same as Chinese ionic HREE deposits).

PRECIOUS METALS & MINERALS FEBRUARY 1, 2021 / 9:31 AM / UPDATED 10 MONTHS AGO

Pentagon awards $30 mln in rare earths funding to Australia's Lynas

MP Materials enters rare earth magnet supply deal with GM, to build factory in Texas

MINING.COM Staff Writer | December 9, 2021 | 9:35 am Battery Metals Intelligence Markets USA Rare Earth

Tesla Is Now Officially Headquartered In Austin, Texas

As of December 1, 2021, Tesla's new corporate headquarters is located on the massive Gigafactory Texas site.

Mineralization

- The HREEs at JEMI are hosted in the mineral eudialyte as dykes, dyklets, veins, and disseminations extending outward into the host carbonate rocks from the intrusion core.
- Mineralized zones and dykes are several hundred meters in strike length and range from a few to as much as 10 meters in width.
- Rock chip samples have total rare earth oxides* (TREO) of up to 0.5%, and heavy rare earth oxides** (HREO) of up to 0.25%, consistent with grades from other peralkaline deposits such as Norra Karr Sweden.

**Total Rare Earth Oxides (TREO) includes: La_2O_3, Ce_2O_3, Pr_2O_3, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_2O_3, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3.*

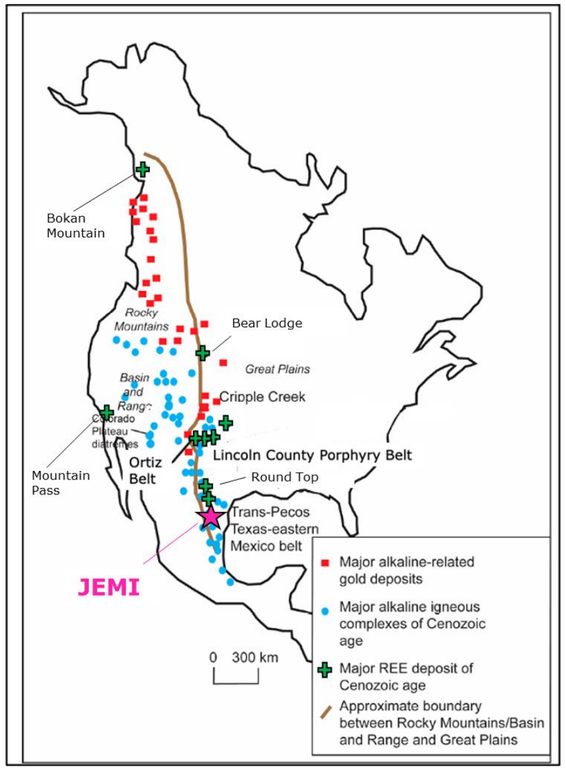
***Heavy Rare Earth Oxides (HREO) includes: Eu_2O_3, Gd_2O_3, Tb_2O_3, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3.*

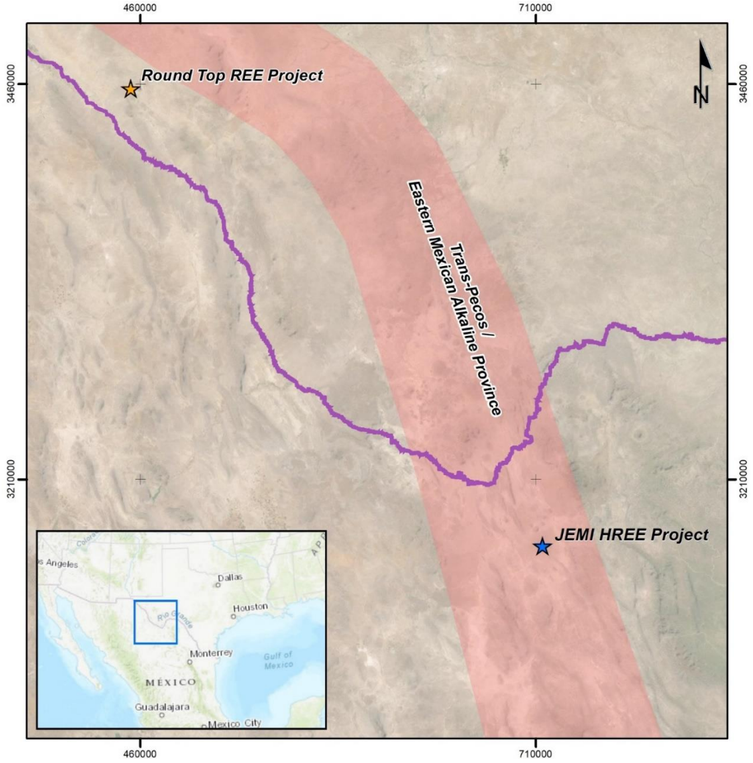
1 – Jemi mineralization - The brilliant pink mineral is the HREE hosting mineral eudialyte.

2 – HREE bearing dike outcrop.

Regional Geological Setting

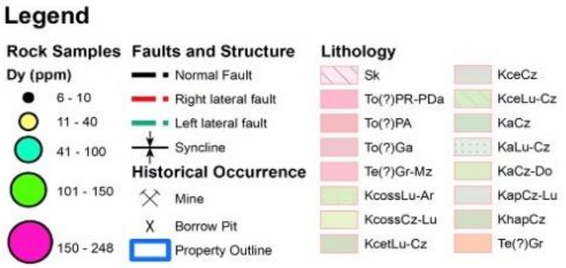
- The JEMI project is situated within a northwest trending belt of alkaline rocks referred to as the Eastern Mexican Alkaline Province.
- This belt is part of a larger belt of diverse alkaline igneous rocks that extend from Alaska and British Columbia through to central-eastern Mexico.
- The diverse rocks and mineral deposits suggest several pulses of highly fractionated and differentiated mantle-derived magmas to lower crustal magmas related to the subduction of the Farallon plate.

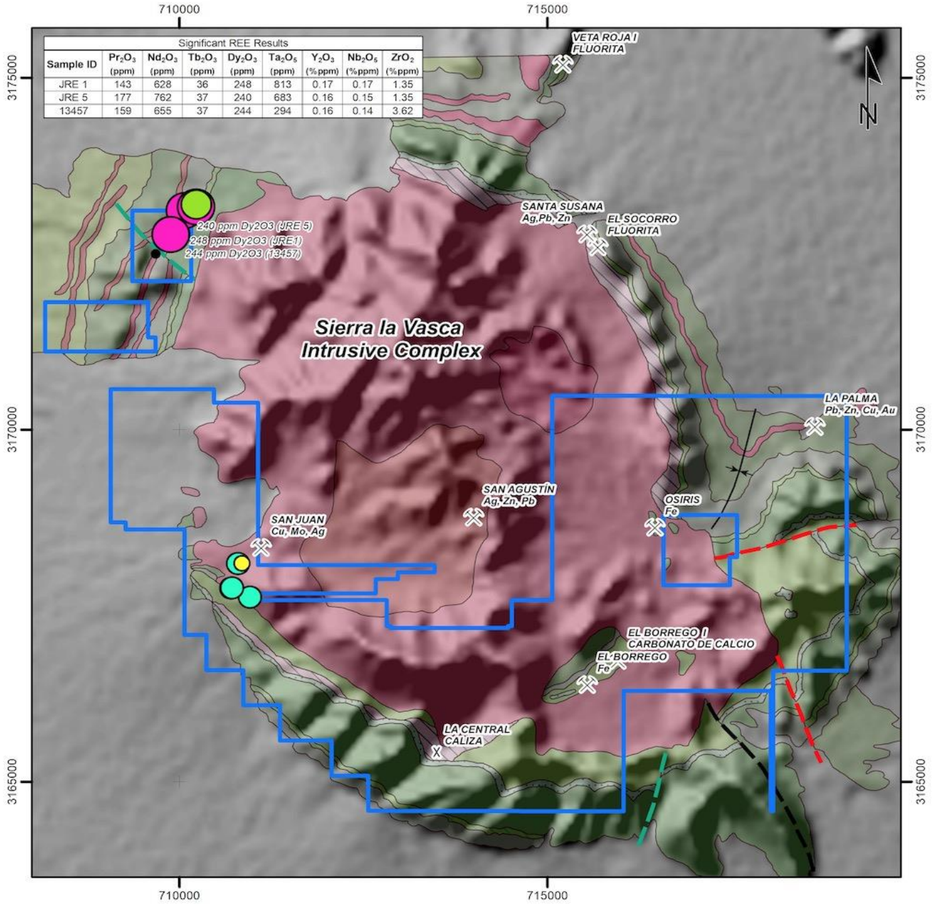




Project Geological Setting

- The geology of the Project area consists of an igneous intrusion complex forming an ellipsoidal core, ranging felsic to mafic in nature.
- Dykes at the margin are alkaline with nepheline syenite locally and are elevated in REE.
- Igneous bodies intruded into host sedimentary Cretaceous limestone and shales during the Laramide Orogeny (either subduction or rift related). Skarn, carbonate replacement, and fluorite occurrences/deposits are common in the region.



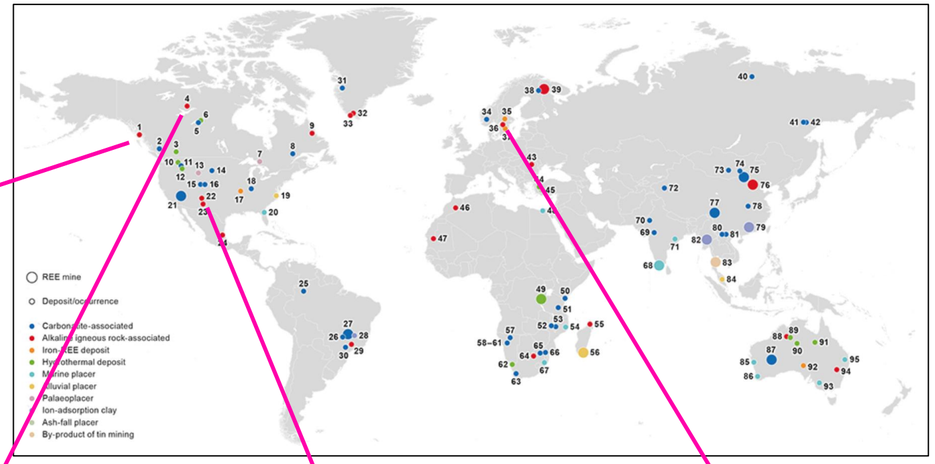


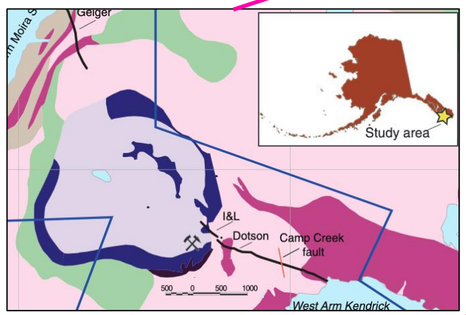
Significant REE Results

Sample ID	Pr_2O_3 (ppm)	Nd_2O_3 (ppm)	Tb_2O_3 (ppm)	Dy_2O_3 (ppm)	Ta_2O_5 (ppm)	Y_2O_3 (%ppm)	Nb_2O_5 (%ppm)	ZrO_2 (%ppm)
JRE 1	143	628	36	248	813	0.17	0.17	1.35
JRE 5	177	762	37	240	683	0.16	0.15	1.35
13457	159	655	37	244	294	0.16	0.14	3.62

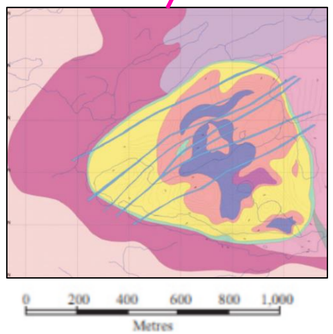
Peralkaline Deposit Comparables[1]

- Rare earth mineralization at JEMI exhibits characteristics of other peralkaline intrusion-related HREE deposits globally, including Norra Karr in Sweden, Nechalacho in NWT, Bokan Mountain in Alaska, deposits on the Kola Peninsula in Russia and Dubbo in Australia.
- In North America, JEMI stands out as prospective to become the premier high-grade source of HREE.
- It is also attractive based on assessments of grade, jurisdiction, and remoteness.

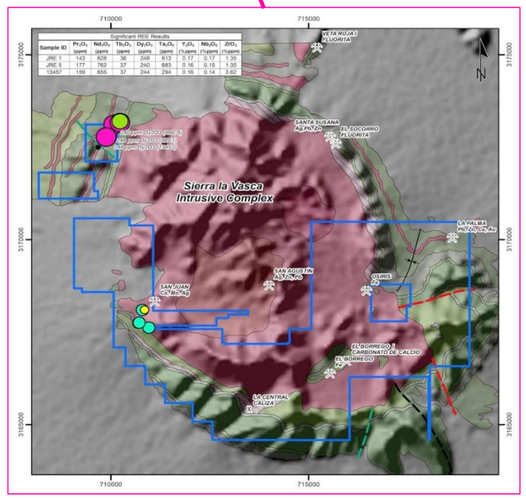




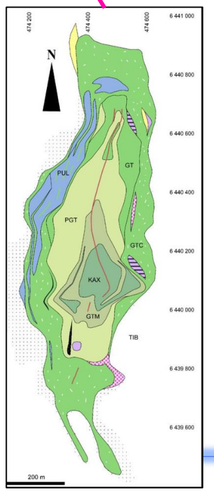
Bokan Mountain, AK



Nechalacho, NWT



Jemi Project



Norra Karr, Sweden

[1]Comparables represent resource and feasibility-stage projects and mineralization is not necessarily indicative of mineralization at JEMI.

Exploration and Discovery

COMPLETED

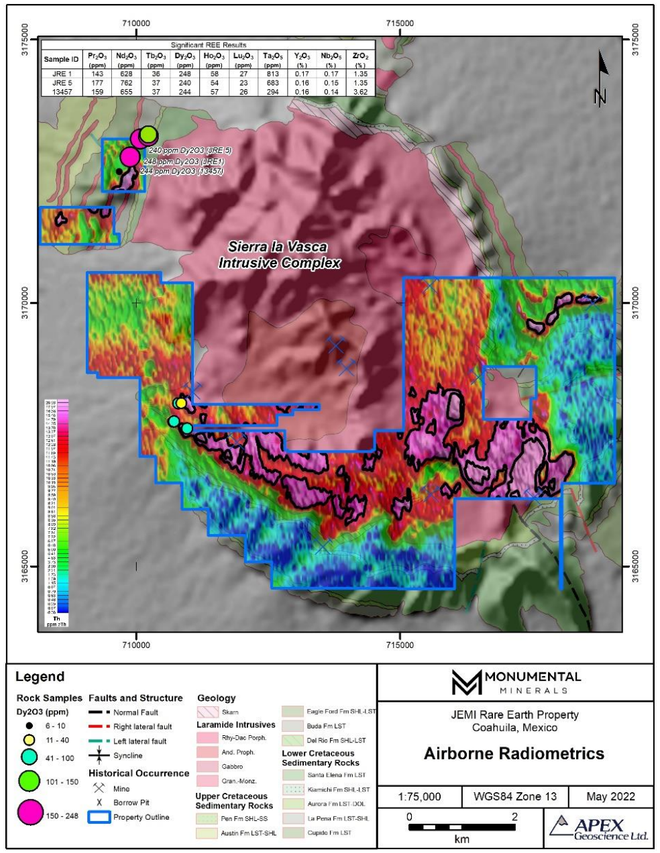
- Geophysics: Airborne radiometric and magnetic geophysics survey.
    - Airborne radiometric results define two parallel 8 km arcuate anomalies that occur along the south and west margin of the Sierra La Vasca intrusion complex

IN PROGRESS

- Geology: Mapping and structural interpretation of geophysical anomalies consisting of mineralized dykes.
- Surface geochemical sampling: Several areas are undercover and might be hiding significant REE-enriched dykes.

PLANNED

- Geology: Mapping and structural interpretation of the intrusive complex and and mineralized dykes.
- Exploration diamond drilling.



Airborne radiometric survey at Jemi.

MONUMENTAL
MINERALS

Share Structure

38,278,756
Issued & Outstanding

5,555,555
Warrants ($0.65)

460,000
Broker Warrants ($0.20)

455,258
Broker Warrants ($0.65)

1,800,000
Stock Options ($0.38)

1,500,000
Stock Options ($0.45)

275,000
Stock Options ($0.50)

$3,200,000
As of July 26, 2022

Significant Shareholders

3,500,000 | Lithium Chile Corp
2,308,810 | Discovery Silver Corp

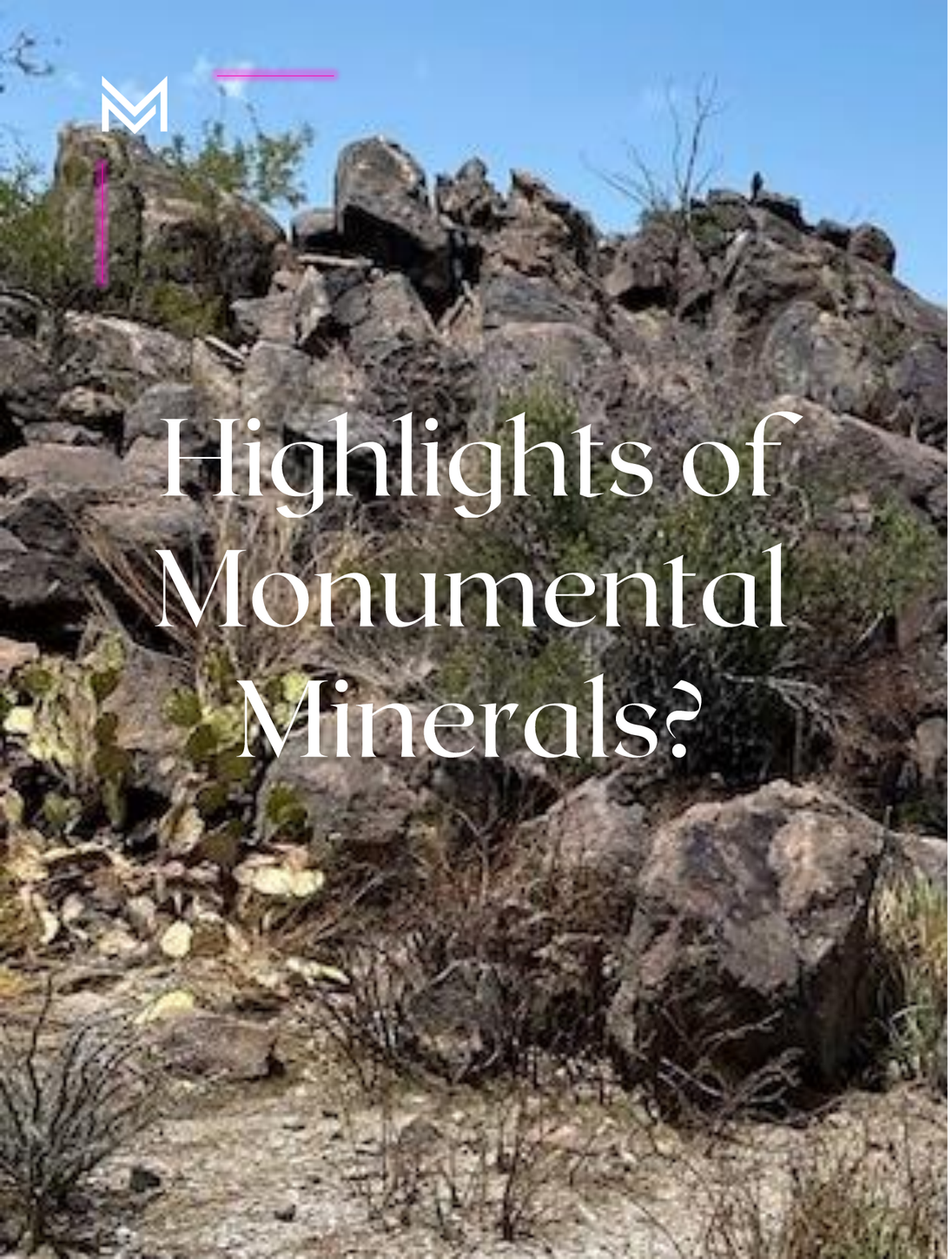
CUSIP
615327103

ISIN
CA6153271037

Transfer agent
Computershare

Legal
AFG LAW LLP

TSX-V: MNRL | FSE : BE5 | OTC : MNMRF



Highlights of Monumental Minerals?

1

Share Structure

38.2M shares outstanding with significant management and associate's ownership.

2

Experienced Technical Team

Jamil Sader, Ph.D. - Extensive experience in rare earth mineral exploration and mineralogy.
Frits Reidel – Founder of Atacama Waters, specializing in lithium brine in SA.
Kris Raffle, B.Sc., P.Geo., 20 years of experience in mineral exploration.
Mark Saxon, FAusIMM, MAIG – Proven track record of REE exploration and project development.

3

Option for 100% ownership (Jemi) and 75% (Laguna Blanca)

Exposure to near-term drillable assets in safe jurisdictions.

4

Favorable economics

The value of lithium and Rare Earth metal for the global trend to decarbonization continue to rise due to increasing demand, lack of supply, and geopolitical concerns.

MONUMENTAL
MINERALS

Contact Us

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