



MONGOLIA'S FIRST LITHIUM BRINE EXPLORER & DEVELOPER

TSX-V: ION
FRA: 5YB
OTCQB: IONGF

November 2022

DISCLAIMER

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LEGAL

This presentation includes certain statements that may be deemed "forward looking statements". All statements in this presentation, other than statements of historical facts, that address events or developments that Ion Energy Ltd. (the "Company") expects to occur, are forward looking statements. Forward looking statements are statements that are not historical facts and are generally, but not always, identified by the words "expects", "plans", "anticipates", "believes", "intends", "estimates", "projects", "potential" and similar expressions, or that events or conditions "will", "would", "may", "could" or "should" occur. Although the Company believes the expectations expressed in such forward looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward looking statements. Factors that could cause the actual results to differ materially from those in forward looking statements include market prices, exploitation and exploration successes, and continued availability of capital and financing, and general economic, market or business conditions. Investors are cautioned that any such statements are not guarantees of future performance and actual results or developments may differ materially from those projected in the forward looking statements. Forward looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made. Except as required by securities laws, the Company undertakes no obligation to update these forward looking statements in the event that management's beliefs, estimates or opinions, or other factors, should change. The information provided in this presentation is not intended to be a comprehensive review of all matters and developments concerning the Company and should be read in conjunction with the other disclosure documents of the Company. The information contained herein is not a substitute for detailed investigation and analysis. No securities commission or regulatory authority has reviewed the accuracy or adequacy of the information presented.

TECHNICAL

The technical information in this presentation has been approved by Khurel Lamzav, P. Geo of the Company and a Qualified Person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects.



OUR LEADERSHIP

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ALI HAJI
CEO/Director

Director of Antler Hill Mining Ltd, Spirit Banner II Capital Corp. and CEO & Director of Aranjin Resources. 13+ years international experience (asset management, risk analysis and program governance). Advisor to ATMA Capital Markets Ltd and Steppe Gold TSX:STGO. BSc from University of Western Ontario



MATTHEW WOOD
Chairman of the Board

Chairman of Steppe Gold TSX:STGO & Aranjin Resources (TSXV:ARJN), Founding Chairman of Avanco Resources (sold in March 2018 for AUD\$440M) and Hunnu Coal (sold for AUD\$500M in 2012).



WENDY LI
Director, Asia

18+ years of extensive commercial and business development experience in Asia, including Mongolia and China, with Noble Resources Ltd and SouthGobi Resources Ltd. BA (Hon) from Wilfrid Laurier University, in Waterloo, Canada.



BATAA TUMUR-UCHIR
Director

A Mongolian Citizen that serves as CEO and Director of Steppe Gold TSX:STGO. Mr. Tumor-Ochir is an advisor to the Ministry of Mining and Heavy Industry, Holds a bachelor's degree in business administration and graduate certificates in international business and marketing from Australia and Singapore.



ANEEL WARAICH
Director

EVP and Director of Steppe Gold TSX:STGO, Director of Antler Hill Mining Ltd, CEO of Spirit Banner Capital Corp, Founder of ATMA and ATMACORP with experience in investment banking at Dundee. MBA from Goodman Institute of Investment Management at John Molson School of Business.



ENKHTUVSHIN KHISHIGSUREN
Director

Over 30 years of Mongolian mineral experience for multi-nationals. Credited for having discovered several prospective gold, molybdenum and copper deposits, including the Olon Ovoot multimillion ounce gold deposit.



JOHN MCVICAR CPA, CA
CFO

Brings more than 30 years of international business experience in Management Consulting and Finance. His previous roles include Consulting Partner at a Big 4 firm, CFO of a TSX-listed company and several regional finance leadership roles with large U.S. and Canadian multinationals in Canada, the U.S., South America and Asia. Is a CPA, CA and graduated with an MBA from Duke University and a B. Comm from Queen's University.



PAUL FORNAZZARI
Advisory Board Member

Served as inaugural Chair of Lithium Americas and secured its initial strategic investments from Mitsubishi and Magna International. Former Director of Neo Lithium Corp. Currently, Paul is a partner with Fasken Martineau DuMoulin LLP, where he is head of Latin America for the Global Mining Group, and is also a member of the TSX-V's National Advisory Committee. Holds an LLM from Osgoode Hall Law School in Securities Law and an LLB from the University of Windsor.



DON HAINS
Advisory Board Member

President of Hains Engineering Company Limited and Principal of Hains Technology Associates. An industrial minerals exploration and economic geologist with +30 years of experience in exploration, development, use and analysis of industrial minerals properties and materials. Has a particular focus on critical and energy related minerals such as lithium. Has written numerous NI 43-101 technical and due diligence reports on lithium projects across the Globe.



DR. KHASHBAT DASHTESEREN
Special Advisor

A PhD lithium hydrogeologist with extensive resource exploration experience in Mongolia. Served with Mongolia's Department of Urban Development and Investment, as Chief Geologist and then as CEO at Geolink LLC. Has spent many years researching laboratory analysis methods for lithium at the Akita University in Japan. A Professional Geologist accredited by the Mongolian Professional Institute of Geology and Mining, and a Professional Engineer accredited by the Mongolian Ministry of Mineral Resources and Energy.



DR. MARK KING
Advisory Board Member

Principal Hydrogeologist of Groundwater Insight Inc. (GWI), with more than 35 years of experience in groundwater research and consulting. Dr. King has a strong and varied background in lithium brine evaluation, serving as technical lead on more than 30 brine investigations including QP for numerous NI43-101, SEC and JORC reports, including for Lithium Americas, Albemarle and NeoLithium.



DR. DAVID DEAK
Advisory Board Member

An entrepreneur whose expertise spans across lithium mining development, battery supply chain developments, energy storage, renewable energy, and electric vehicles. He is President of Marbex LLC, was formerly the CTO and SVP of Lithium Americas Corp., and is an alum of Tesla Inc., Ambri Inc. (MIT start-up), Lux Research Inc., and Siemens Wind Power. He was educated at the University of Toronto and Oxford University.

OUR STORY

In 2017, our co-founders, Ali Haji and Matthew Wood, identified an opportunity for lithium exploration and development while on a trip to Mongolia for another mining entity.

They recognized that our world was on the brink of a Green Revolution and that the move away from fossil fuels would create unprecedented demand for battery metals, including lithium.

Ali and Matthew started discussions with the Mongolian government about the potential for lithium in-country – and the vision for ION Energy was born!

CORPORATE OVERVIEW

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Over
100,000 hectares



(247,000 acres)

First lithium brine
licence ever



in Mongolia

Exploration is
already underway



THE WORLD IS GOING ELECTRIC

ION Energy is ready for the 3rd wave of the clean energy
revolution & the increased Lithium demand



MONGOLIA TODAY

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- ✓ **Untapped and unlimited potential for battery metals**
- ✓ Mongolia's economic growth is expected to accelerate to above six percent in 2023-2024
- ✓ Geopolitics makes Mongolia critical to China's Belt & Road Initiative, and to Superpowers' pipeline initiatives with Mongolia gaining revenue
- ✓ **Mongolia's New Revival Policy:**
 - Investor friendly: increased access to mining licences;
 - Borders open and increased rail infrastructure coming online by 2023; and
 - Growing Technology Hub
- ✓ Evidence of Mongolia's value proposition: Rio Tinto \$5B commitment & Zijin/Xanadu strategic partnership

ION'S MONGOLIAN ADVANTAGE

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- ✓ Management successfully operating in Mongolia for over a decade, with a combined 150+ years of mining and exploration experience
- ✓ Seasoned Mongolian nationals on the team, with commitment to best-in-class exploration practices, developing local young talent, and strong community engagement with quarterly local meetings.
- ✓ Trusted partner with all levels of government, and the Mongolian University of Science and Technology.

Hunnu Coal
AUD \$20M
IPO
2010

Hunnu Coal Exit
AUD \$500M
Cash
2012

 STEPPE GOLD
CAD \$25M
IPO
2018

 ION ENERGY
CAD \$2.7M
IPO
2020

The largest exploration licence
in Mongolia:

ION ENERGY'S BAAVHAI UUL PROJECT

+81,000 hectare (almost 200,000
acre) highly-prospective site



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The largest exploration licence ever granted in Mongolia:

09

BAAVHAI UUL PROJECT

PRE-ACQUISITION RESULTS

- All holes drilled contain **significant** levels of Lithium
- Average grade 426 ppm Lithium
- Maximum grade 811 ppm Lithium
- High evaporation and low precipitation endorheic basin, no outflow to external bodies of water

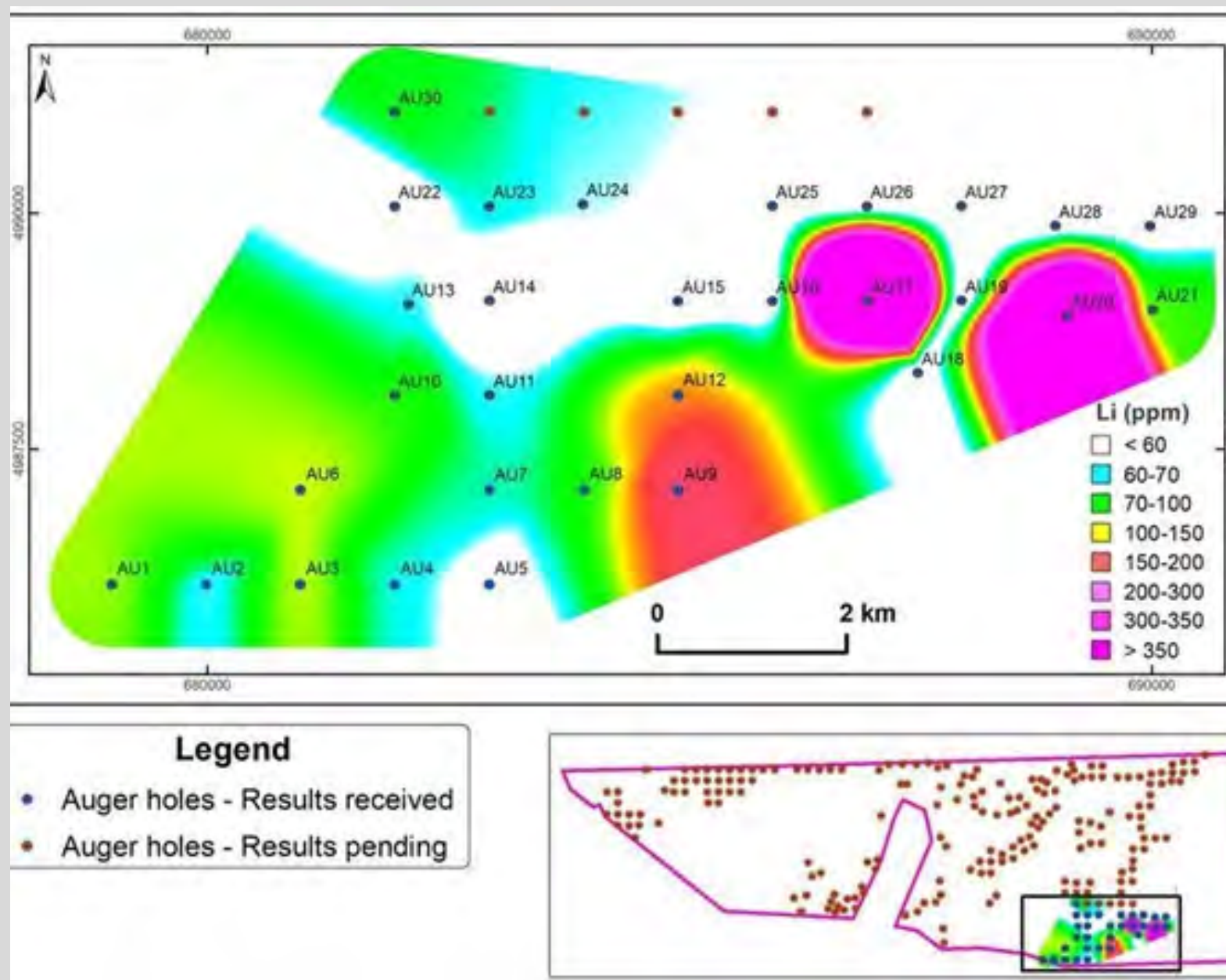


GEOGRAPHICAL PROFILE

- Low potassium and magnesium ratios: favourable for large crystal formation at license altitude and temperature
- Aquifers 20m below surface: Cretaceous volcanic and sedimentary rocks are the most suitable aquifer for the enrichment of lithium
- Brine vs hard rock sources = lower production costs
- Gobi Desert: arid environment with high evaporation rates
- 24km from the Chinese border



MAIDEN DRILLING RESULTS: DECEMBER 2021



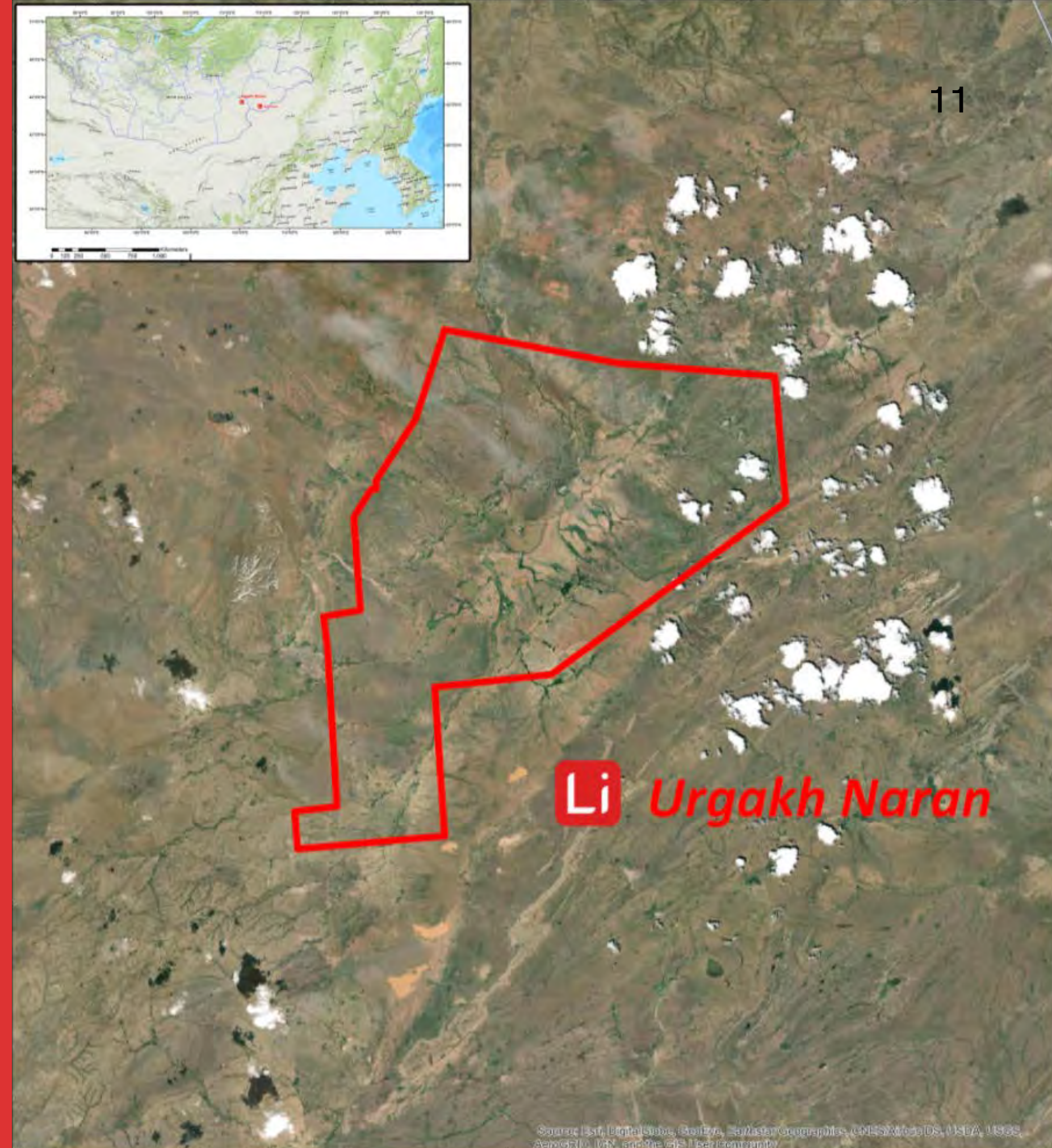
- Lithium Brines Encountered;
- Initial drilling results are highly encouraging;
- New Lithium Discovery Highlighted:
White Wolf Prospect;
- A total of 222 auger drill holes have been completed for 1304.5 metres;
- Drill hole AU-17 returned results up to 1,502ppm Lithium; and
- A new Copper and Nickel '*Victory*' discovery.

Drilling Results at Baavhai Uul

Solidifying our commitment to the world's Green Revolution, as Mongolia's leading lithium explorer & developer:

ION ENERGY'S URGAKH NARAN: RISING SUN PROJECT

Over 29,000 hectares (+70,000 acres) of highly prospective lithium terrain



URGAKH NARAN LITHIUM BRINE PROJECT

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SIGNIFICANT BRINE DISCOVERY

- Situated in the arid and infrastructure rich region of the South Gobi Desert
- The brine sample was collected at surface from a shallow pool and assayed **918 mg/L** Lithium.
- The highest grade lithium brine known to have ever been collected in Mongolia



MAIDEN EXPLORATION PROGRAM COMPLETED

- Successfully completed an 82 line-km TEM survey.
- All lines show resistivity beginning at a highly encouraging 0.2 Ohm, with a maximum resistivity of 500 Ohm, drawing similarities to assets in the Lithium Triangle.

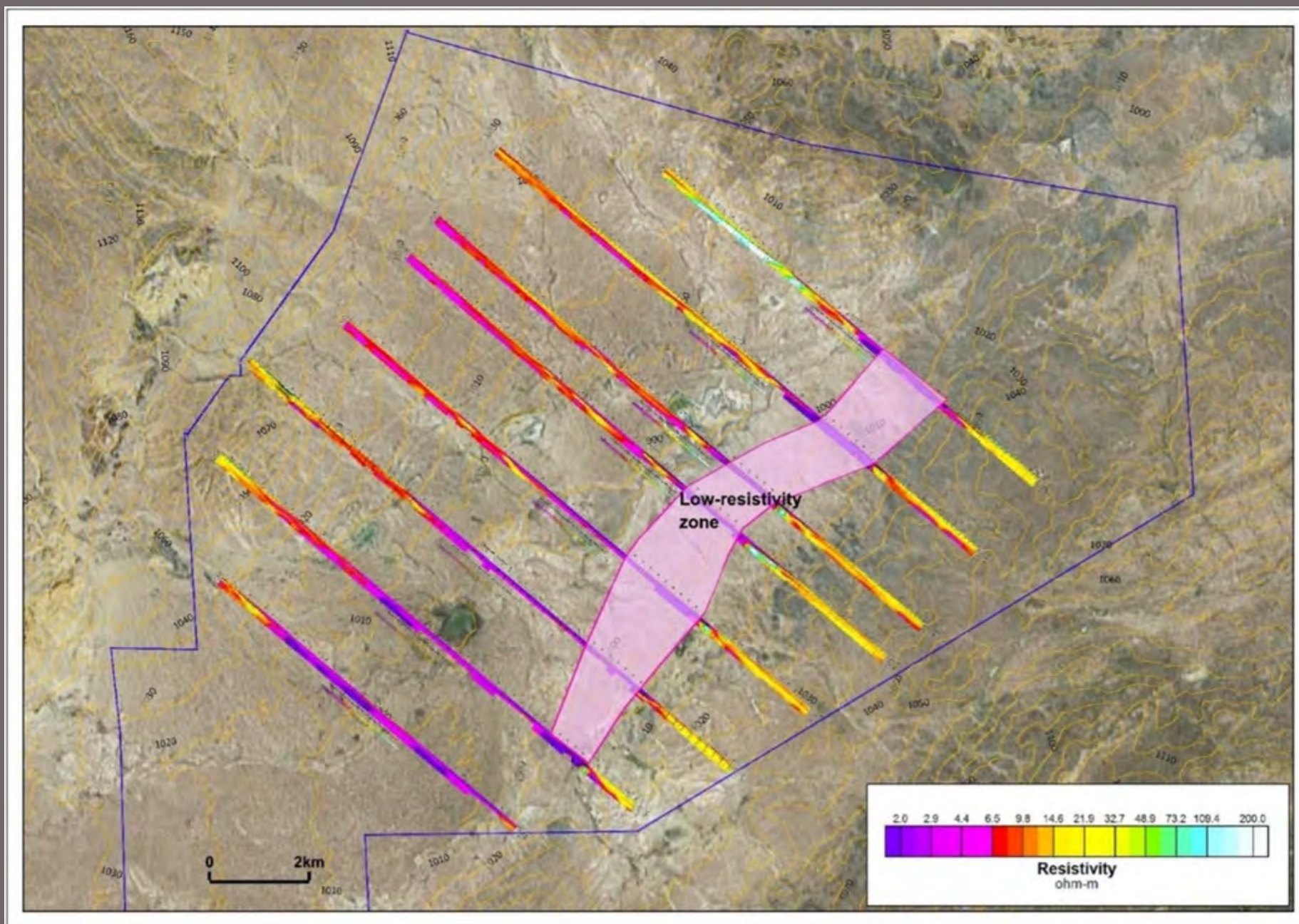


Figure 1: Low Resistivity Zone Illustrated Against Resistivity Sections



SENIOR TECHNICAL TEAM CONDUCTS STRATEGIC SITE VISITS - APRIL 2022

...The geology and morphology of the property is highly prospective, with some parallels to Nevada playa basins and South American salars. It was heartening to see some artisanal salt harvesting in the surface evaporite layers, contained in the low-lying dry ponds and lakes: a good indication of brine presence.

Dr. Mark King, PhD, P.Geo



AUGUST 2022 SITE UPDATE

- Completed an additional 16 line-km TEM survey, that intersects the previously announced 82 line-km completed
- Results indicate strong conductivity and low resistivity that is typical of a significant brine aquifer
- 22.7 billion cubic meter low resistivity aquifer volume measured

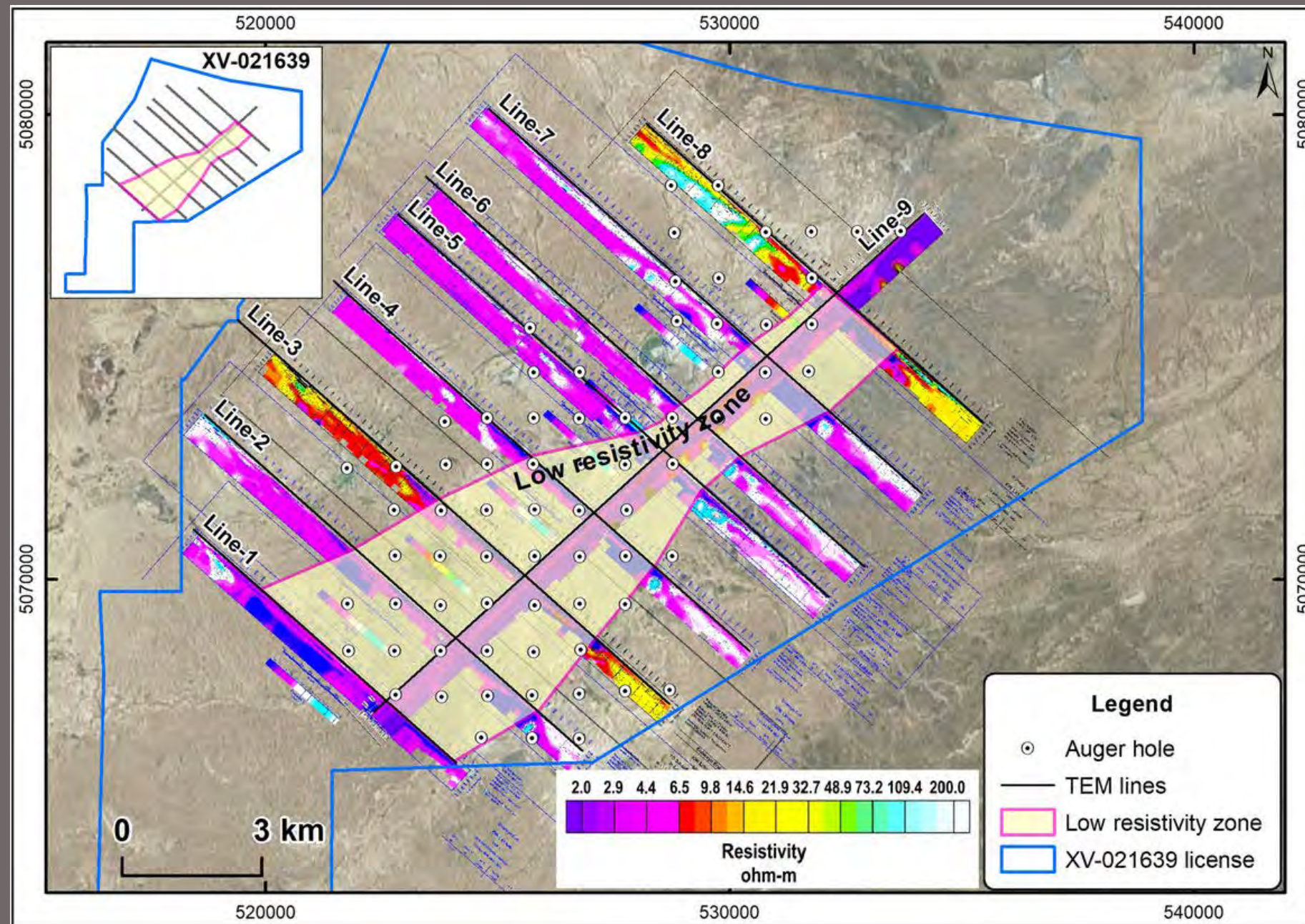


Figure 2: Low Resistivity Zone shown with lines 1 through 9.

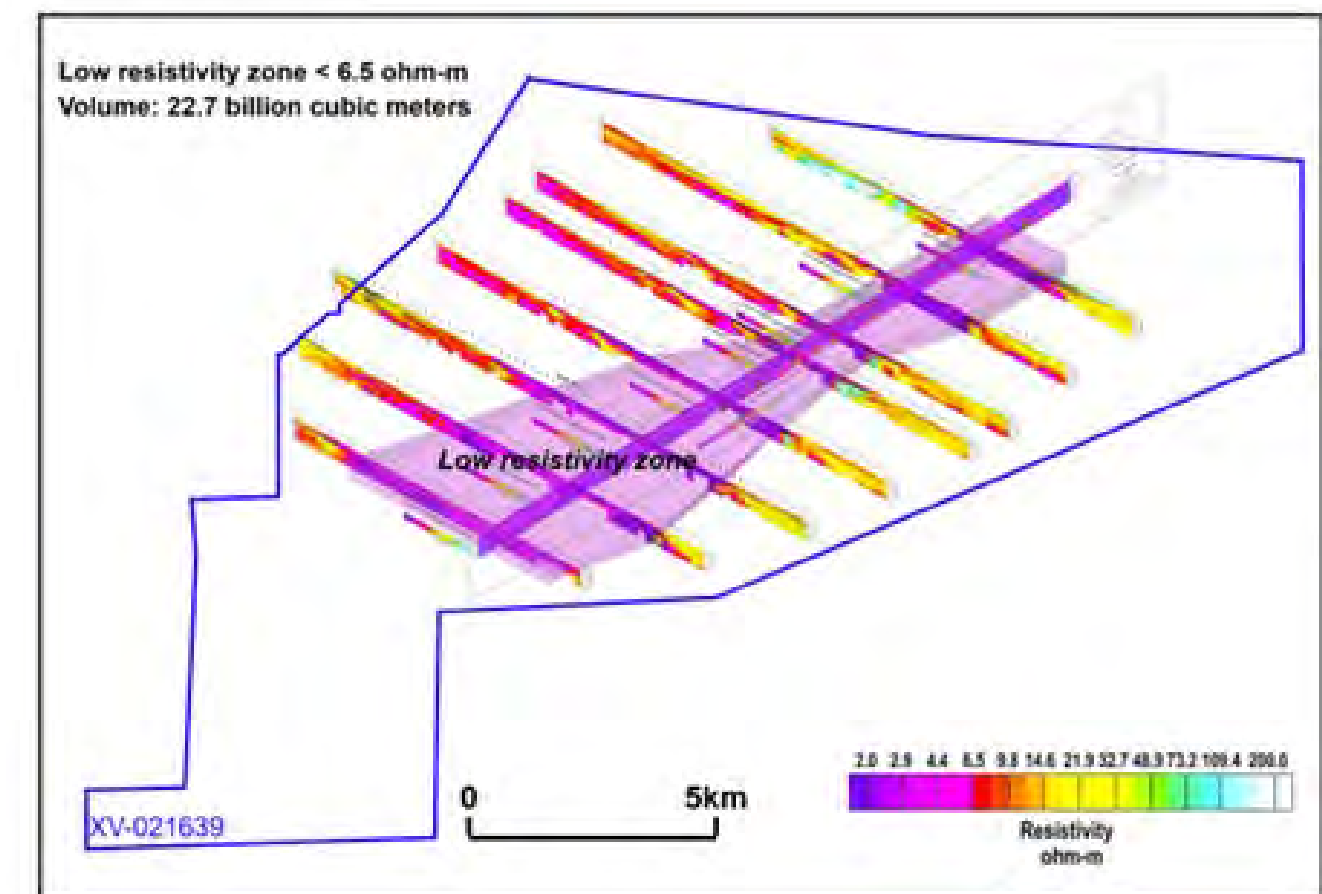
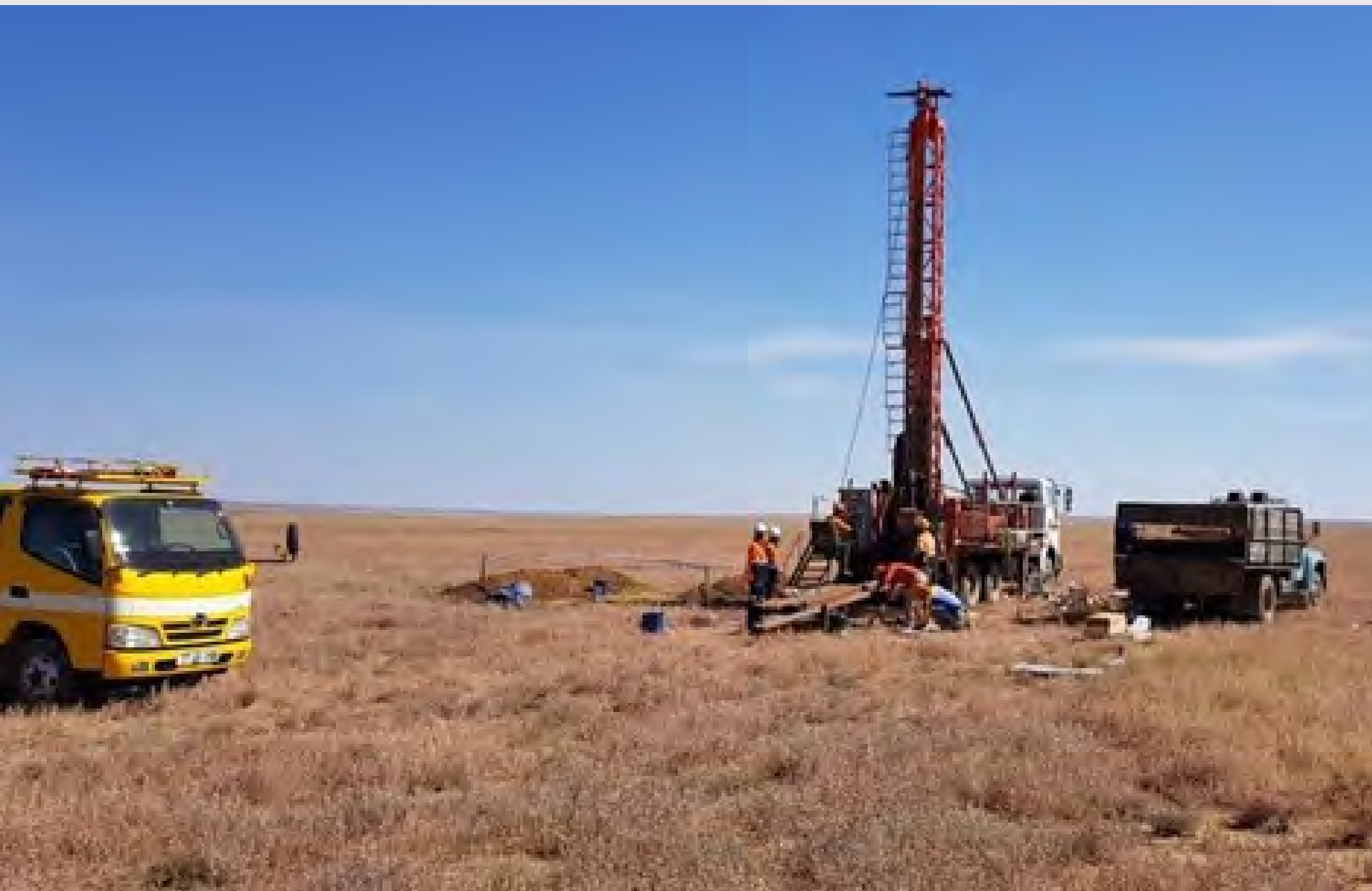


Figure 3: Low resistivity zone volume at Urgakh Naran.



Diamond Core Drill Rig onsite at Urgakh Naran



**Core samples collected at
Urgakh Naran**

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OCTOBER 2022 SITE UPDATE

- Site visit concluded in September with a second visit planned for October; inferred resource calculation ongoing.
- Drilling of two lithological diamond core holes has been completed at Urgakh Naran with a total depth of 702m, third hole currently at 185m;
- Drilling of one water well down to 300m has been completed using a tricone bit, slotted casings, with a diameter of 6 inches;
- Total cumulated gravelite, porous and permeable zones starting at 184m seen at UNDH-02 show thickness of at least 80m.

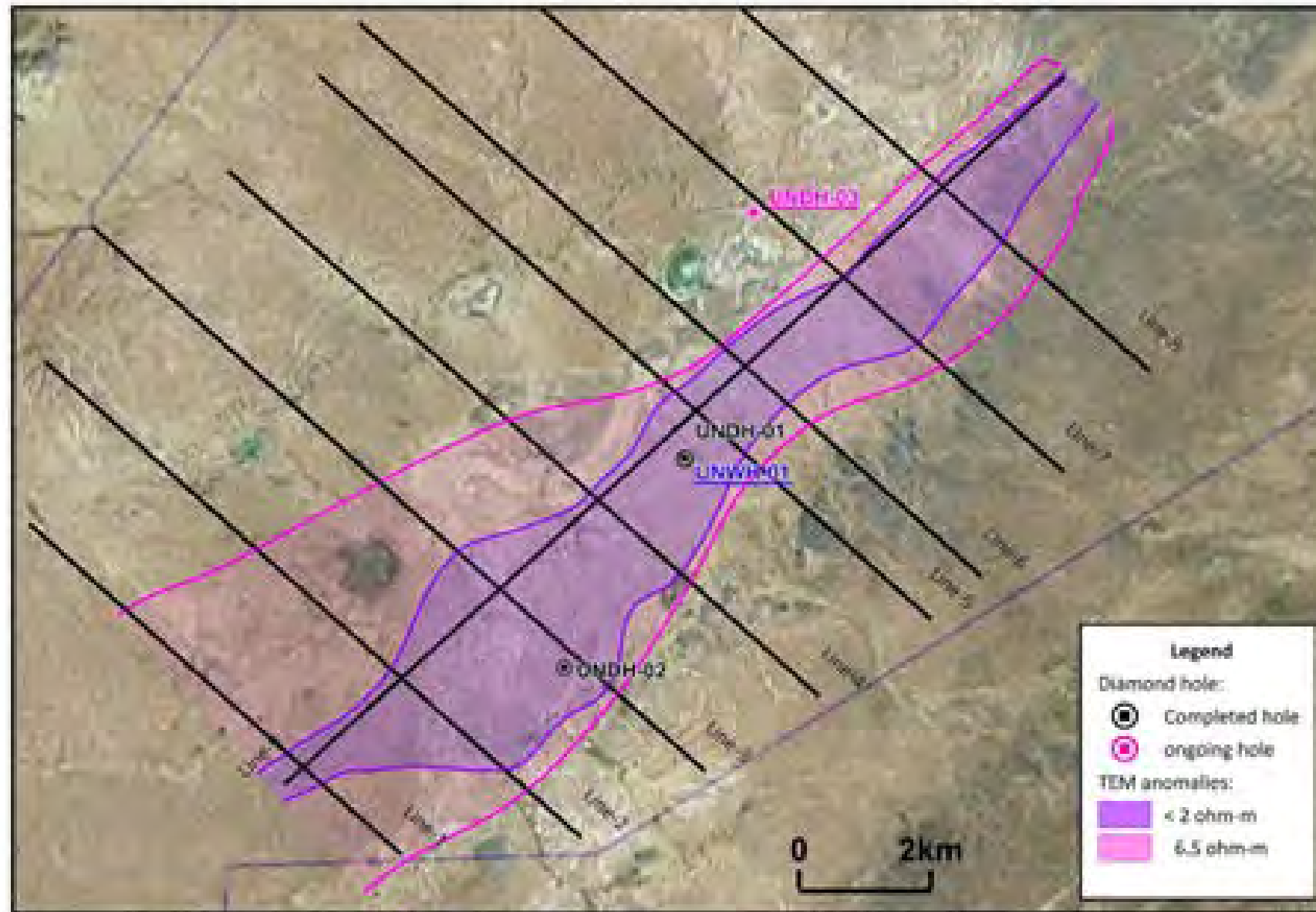


Figure 1: Drill location map at Urgakh Naran, Dorngovi Province.



Waterwell rig at UNWH-01, Urgakh Naran.

Diamond core drilling at UNDH-02



Exploration efforts at UNDH-02



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WHY ION ENERGY'S MONGOLIAN SITES ARE A GEOGRAPHIC ADVANTAGE

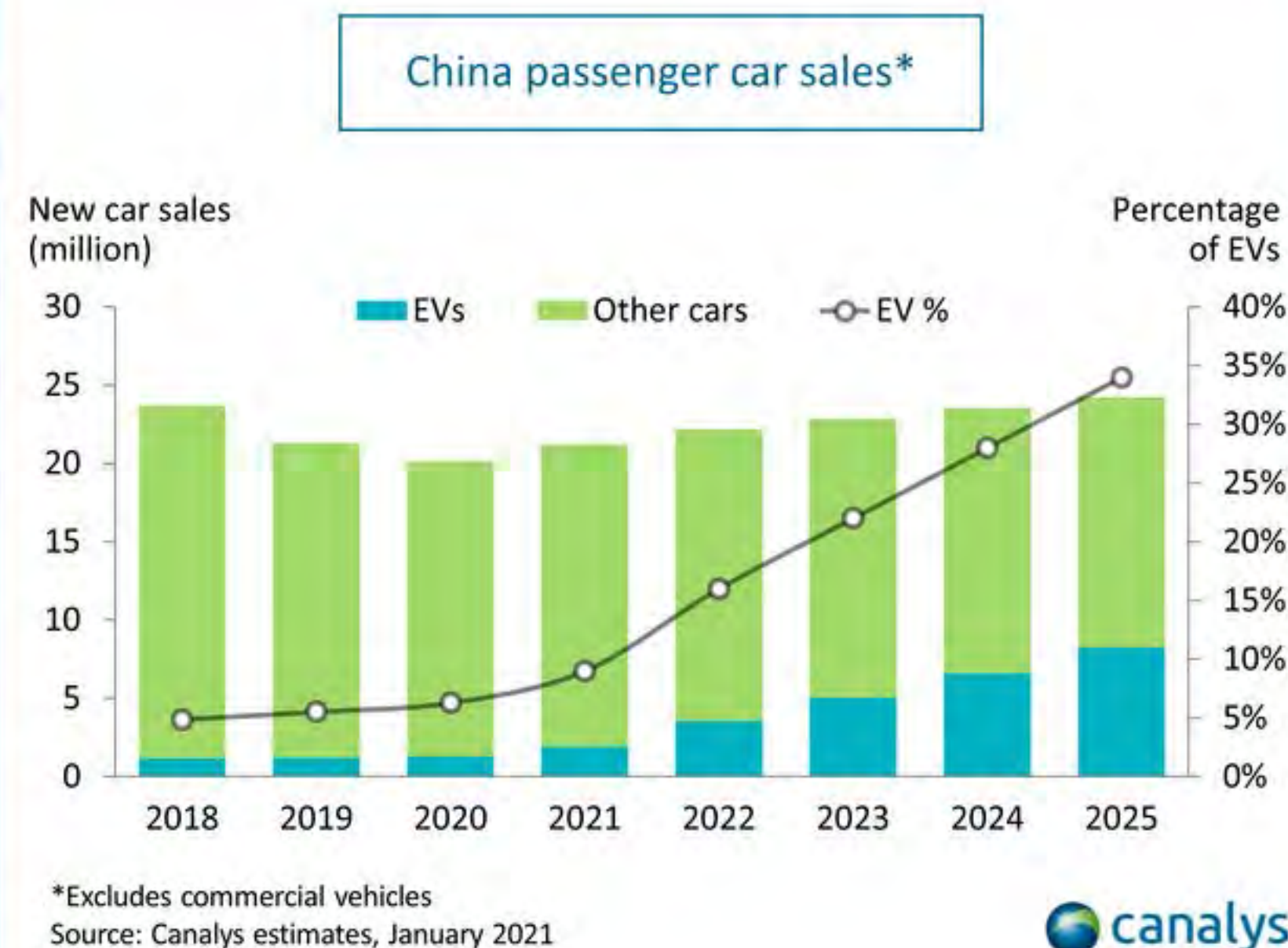
- Low cost and year-round operating environment
- Infrastructure rich location in Mongolia
- 30km by road to Mongolia-China border crossing
- Strong location advantage over South American producers: Mongolia set to become a major player in the lithium sector

CHINA CONTINUES TO BE THE WORLD'S LARGEST ELECTRIC-VEHICLE MARKET

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- ✓ China is the world leader in manufacturing lithium batteries, and continues to outpace the globe in demand for EVs
- ✓ Korea, Taiwan and Japan's large tech industries will continue to fuel demand for lithium batteries.
- ✓ China dominates lithium production: "77% of global lithium ion production capacity will be located in China by the end of 2021. Based on current plans in the pipeline, China will still hold 67% of global lithium ion cell capacity in 2030. (Benchmark Mineral Intelligence – 2021)

China is set for a sustained period of strong EV growth. Canalys forecasts 51% EV growth in China in 2021. EVs will represent one third of car sales in 2025.



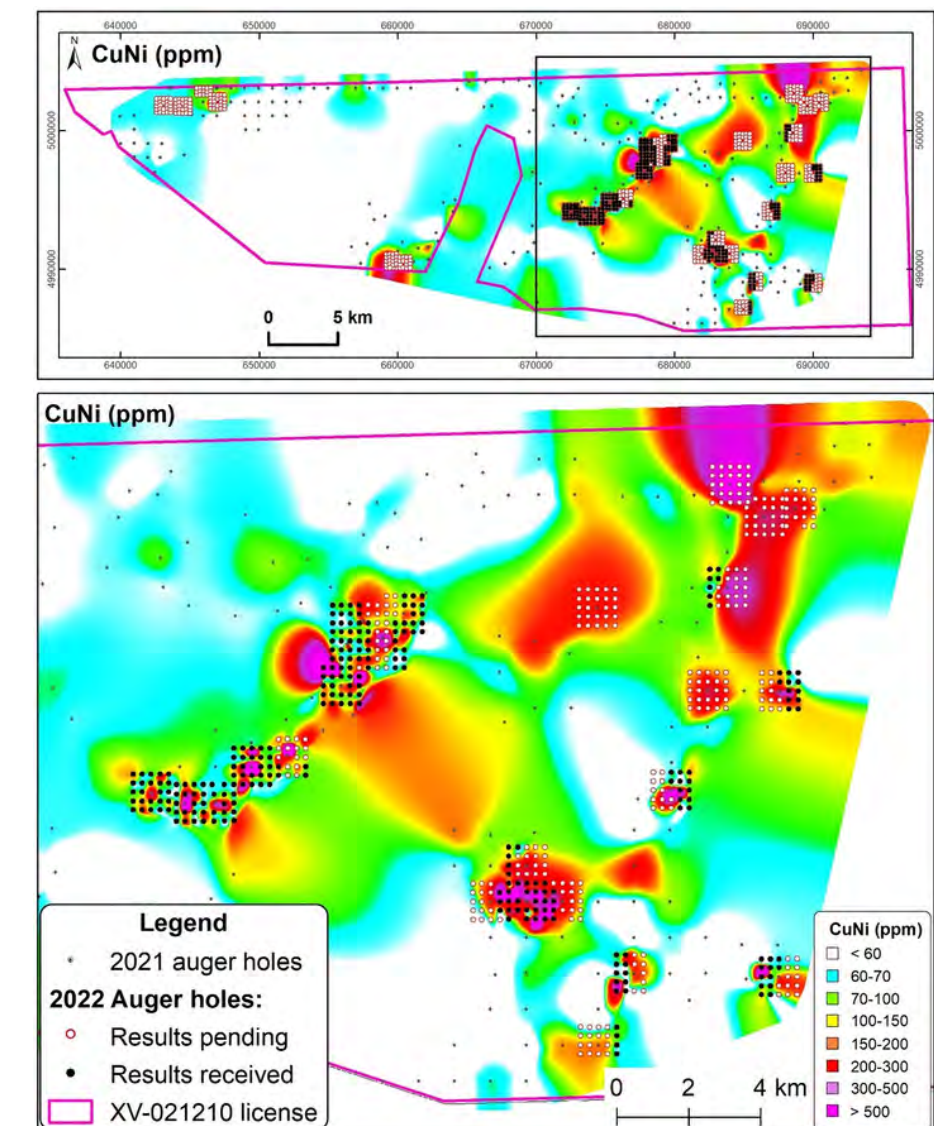
LITHIUM & COPPER:

A Battery Metals Strategic Alliance

FEBRUARY 2022:

ION Energy Enters into a JV Agreement with Aranjin Resources

- Aranjin is an emerging copper explorer in Mongolia;
- Highly-encouraging results at Aranjin's Sharga asset;
- Strong indications at our flagship Baavhai Uul show significant Copper and Nickel anomalies;
- ION's exploration acreage has been increased across mineral-rich regions of Mongolia;
- Alliance leverages the teams' technical expertise, and our CEO & Board's strong track record in Mongolia.



Auger program at Baavhai Uul Copper Nickel Discovery

ION ENERGY LTD

OTCQB: IONGF, TSXV: ION

BASIC COMMON SHARES OUTSTANDING	60,468,534
WARRANTS @70C (EXP. APR 13, 2024)	11,500,000
OPTIONS @32C (EXP. OCT 21, 2025)	3,000,000
OPTIONS @55C (EXP. FEB 3, 2023)	685,000
FULLY DILUTED SHARES OUTSTANDING	71,525,671
SHARE PRICE (NOVEMBER 7)	USD \$0.13 CAD \$0.15
MARKET CAPITALIZATION (C\$)	USD \$7.4 M CAD \$9.5 M

OWNERSHIP



*Insiders and management are escrowed for 24months/2years (Aug. 31, 2022)



STRATEGIC GROWTH

1

2017

Our co-founders, Ali Haji and Matthew Wood, identified an opportunity for lithium exploration in Mongolia

2

2019

The Baavhai Uul Lithium Brine Project: acquisition of +81,000+ hectare licence

3

2019

Spirit Banner and ION Energy Announce Signing of Definitive Agreement

4

2020

Commenced trading on the TSX-V: ION

5

2020

ION Energy commenced extensive auger program at the Baavhai Uul Lithium Brine project

6

2021

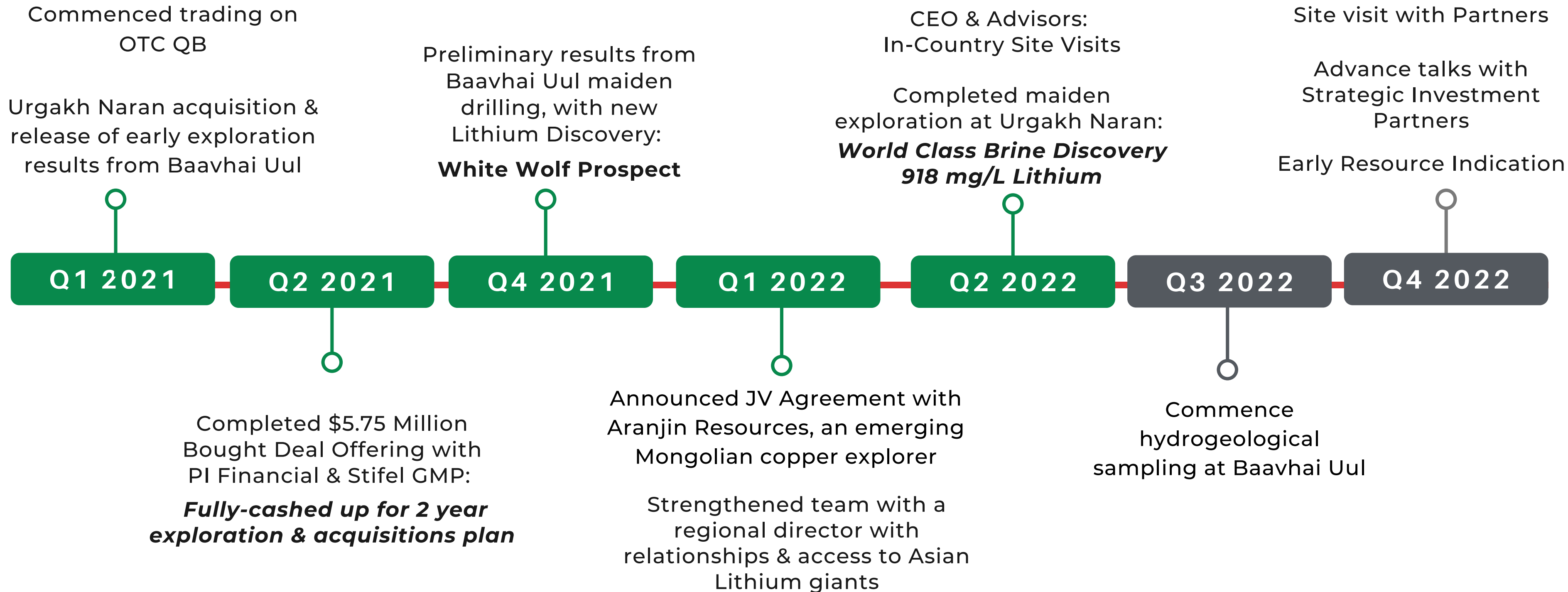
The Urgakh Naran Lithium Brine Project: acquisition of +29,000 hectare licence

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OUR 2021/22 CATALYSTS

DELIVERING ON AGGRESSIVE GROWTH

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OUR STRATEGIC ADVANTAGE

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Price target \$ 1.12 for TSX-V: ION - May 2022

Couloir Capital

Price target \$ 1.18 for TSX-V: ION - June 2022

F R C

Based on comparative analysis of junior lithium companies, a mid-second quartile price-to-book (P/B) ratio of 7.8 indicates a share price target of USD \$0.42 per share. - October 2022

Zacks SCR

Comparable companies and the implied valuations offer a wide range from C\$286 EV/Hectare to C\$20,810 EV/ Hectare with a median of C\$3,715. This compares to ION Energy at C\$174 EV/Hectare.

Stonegate Capital

Positioning Relative to the Third Largest Salt Flat in the World

Wealth Minerals Owns a Portion of Chile's Atacama Salar

BHP

MC: US\$147.3B



MC: US\$28.1B
Operate Lithium-Potassium Facility*



MC: US\$15.97B



MC: US\$114.3M

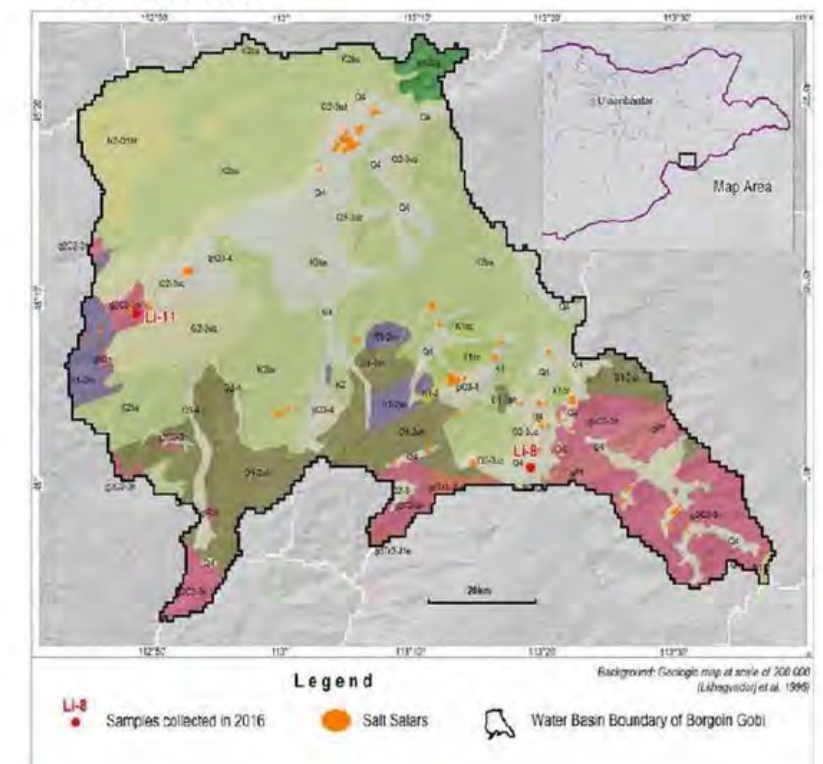


Atacama Salar Overview	
Total Atacama Salar Land Package (ha)	300,000
Total Atacama Salar Max. Lithium Grade (ppm)	1,840
Wealth Minerals Land Package (ha)	46,000
Wealth Minerals Max. Lithium Grade in Chile (ppm)	1,250
Wealth Minerals Exploration to Date	Limited to Surveying
Proximity to Largest Market (China)	~15,000+ Nautical Miles

Ion Energy Owns the Entire Baavhai Uul Basin in Mongolia



MC: US\$23.3M



Ion Energy Portfolio Overview	
Baavhai Uul Land Package (ha)	81,759
Additional Land Owned by Ion Energy (ha)	29,000
Total Land Package Owned by Ion Energy (ha)	100,000+
2016 Sampling Max. Lithium Grade (ppm)	811 ¹
Ion Energy Exploration to Date	Surveying, Sampling, & 800+ m of Drilling
Proximity to Largest Market (China)	30 km

OUR STRATEGIC ADVANTAGE

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(all figures in C\$M, except per share information)

Name	Ticker	Price (1)	S/O	Mrkt Cap	EV	Hectares	EV /Hectare
Standard Lithium Ltd.	TSXV:SLI	\$ 7.22	162.3	\$1,167.6	\$ 1,031.0	75,343	\$ 13,684.3
Critical Elements Lithium Corporation	TSXV:CRE	\$ 1.37	205.2	\$ 282.5	\$ 246.6	24,655	\$ 10,000.4
Lake Resources NL	ASX:LKE	\$ 1.25	1,103.7	\$1,603.5	\$ 1,539.9	74,000	\$ 20,809.8
Lithium Power International Limited	ASX:LPI	\$ 0.51	348.8	\$ 179.6	\$ 165.8	51,263	\$ 3,235.2
Pure Energy Minerals Limited	TSXV:PE	\$ 1.22	32.9	\$ 40.1	\$ 39.6	9,454	\$ 4,194.0
Lithium Chile Inc.	TSXV:LITH	\$ 0.79	145.0	\$ 131.7	\$ 124.7	71,900	\$ 1,735.0
Wealth Minerals Ltd.	TSXV:WML	\$ 0.25	265.4	\$ 65.0	\$ 61.2	52,620	\$ 1,163.0
Bearing Lithium Corp.	TSXV:BRZ	\$ 0.25	109.1	\$ 27.3	\$ 26.5	4,463	\$ 5,933.5
HeliosX Lithium & Technologies Corp.	TSXV:HX	\$ 0.81	N/A	\$ 29.3	\$ 27.7	96,786	\$ 286.0
International Lithium Corp.	TSXV:ILC	\$ 0.10	248.3	\$ 24.8	\$ 14.5	31,426	\$ 461.9
Average							\$ 6,150.3
Median							\$ 3,714.6
Ion Energy Ltd.	TSXV:ION	\$ 0.36	60.3	\$ 21.5	\$ 17.5	100,759	\$ 173.6



INVESTMENT SUMMARY

When you invest in ION Energy, you can count on our team with over 150 years of combined in-country, mining and lithium-specific experience.

Since listing on the TSX Venture Exchange in 2020, we have rapidly forged ahead in following through on our strategic objectives, including a strategic exploration alliance with an emerging copper explorer and a \$5.75 million public offering to ensure that we have a fully-funded 2-year exploration & growth strategy.

FULLY FUNDED

We're fully-funded to continue our aggressive growth strategy

STRATEGIC LOCATIONS

Superior geographic locations in Mongolia and promising early results

WE'RE EXPERIENCED

Strong in-country team and proven track record

RISE IN DEMAND

Lithium is a commodity with high global demand

MARGINS

Low cost production profile

INVESTMENT

Well-positioned to create shareholder value

CONTACT US



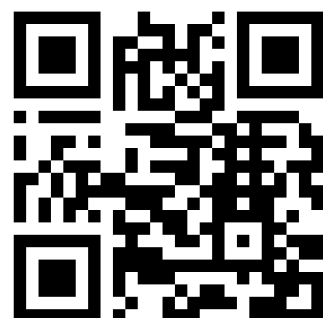
Contact our Chief Executive Officer,
Ali Haji, to discuss your investment.



Ali@IONEnergy.ca



1-(647)-951-6508



**400- 90 Adelaide St. W.
Toronto, ON M5H 3V9**



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