

# RE-INVENTING MINING FOR THE ELECTRIFICATION OF EVERYTHING



Led by **ROBERT FRIEDLAND**, Chairman & CEO

DENVER GOLD FORUM – SEPTEMBER 18-21, 2022  
NYSE AMERICAN & TSX: IE

 **Ivanhoe**  
ELECTRIC

TYPHOON II  
POWER OUTPUT CONTROL UNIT

TYPHOON II  
HIGH POWER TRANSFORMER

# Why Ivanhoe Electric?



Led by entrepreneurial explorer, technology innovator and company builder **Robert Friedland, our Founder, Chairman & CEO**



Proprietary exploration technology

⚡ Access to **exploration and development portfolio assembled by Robert Friedland**



**“Electric metals” (copper, gold, silver, nickel) development focused in the United States**

⚡ We believe **the United States is significantly underexplored** for these metals



**Ivanhoe Mines is our role model** for responsible development



# Ivanhoe

## ELECTRIC

TYPHOON

# Robert Friedland-Led Mineral Discoveries

Some of the World's Most Notable Mineral Discoveries and Mine Developments



# Confluence of Advanced Technologies and Electric Metals



## EXPLORATION TECHNOLOGIES

## ELECTRIC METALS

## ENERGY STORAGE

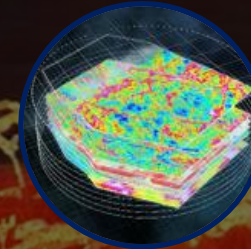
Typhoon™ & CGI\*

Minerals Discoveries  
Focused in the USA

VRB Energy  
Vanadium Redox Flow Batteries

\*Computational Geosciences Inc.

# A Highly Powerful Combination for Resource Discovery



---

## Typhoon™

---

- ⚡ Accurate and powerful geophysical survey technology based on I-Pulse technology
- ⚡ Successfully used to accelerate the exploration process to lower costs
- ⚡ Potential to discover deposits otherwise thought to be undetectable

---

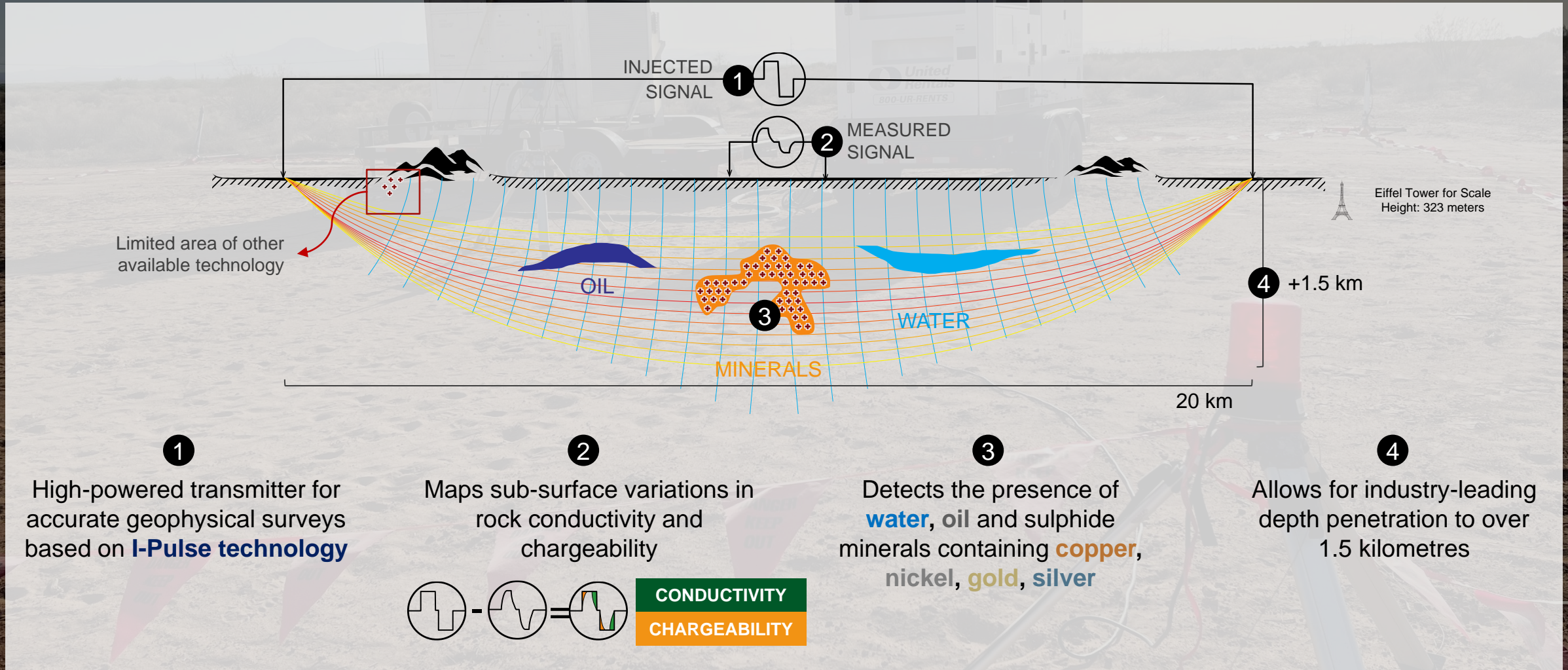
## Computational Geosciences Inc. (CGI)

---

- ⚡ Advanced data analytics, geophysical modelling and artificial intelligence for water, oil and minerals discoveries
- ⚡ Only product that can process the full spectrum of geophysical datasets in 3D produced by Typhoon™

# Typhoon™ – For the Next Generation of Discovery

Typhoon™ allows us to potentially discover deposits otherwise thought to be undetectable through conventional survey methods and technology



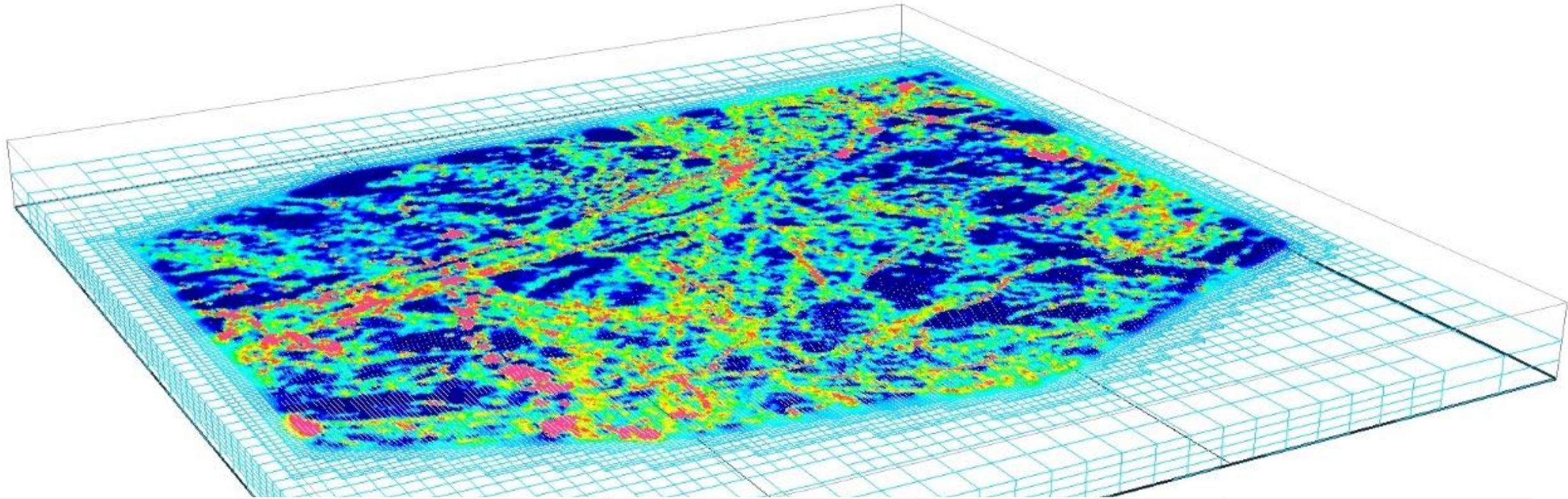
Note: The Company does not hold any rights to water and oil exploration, as I-Pulse holds an exclusive license to these elements in geological surveys for mineral exploration.

# Typhoon™ – Proven Results



- ⚡ Typhoon™ Deployment Ivanhoe Electric
- Typhoon™ Deployment 3<sup>rd</sup> Party
- Zeus™ Deployment

# CGI – Combining Artificial Intelligence with Geophysics for Effective Results



*Geophysical data analytics and artificial intelligence*

*Effective and cost-efficient*

*Data processing, inversion, interpretation, and targeting*

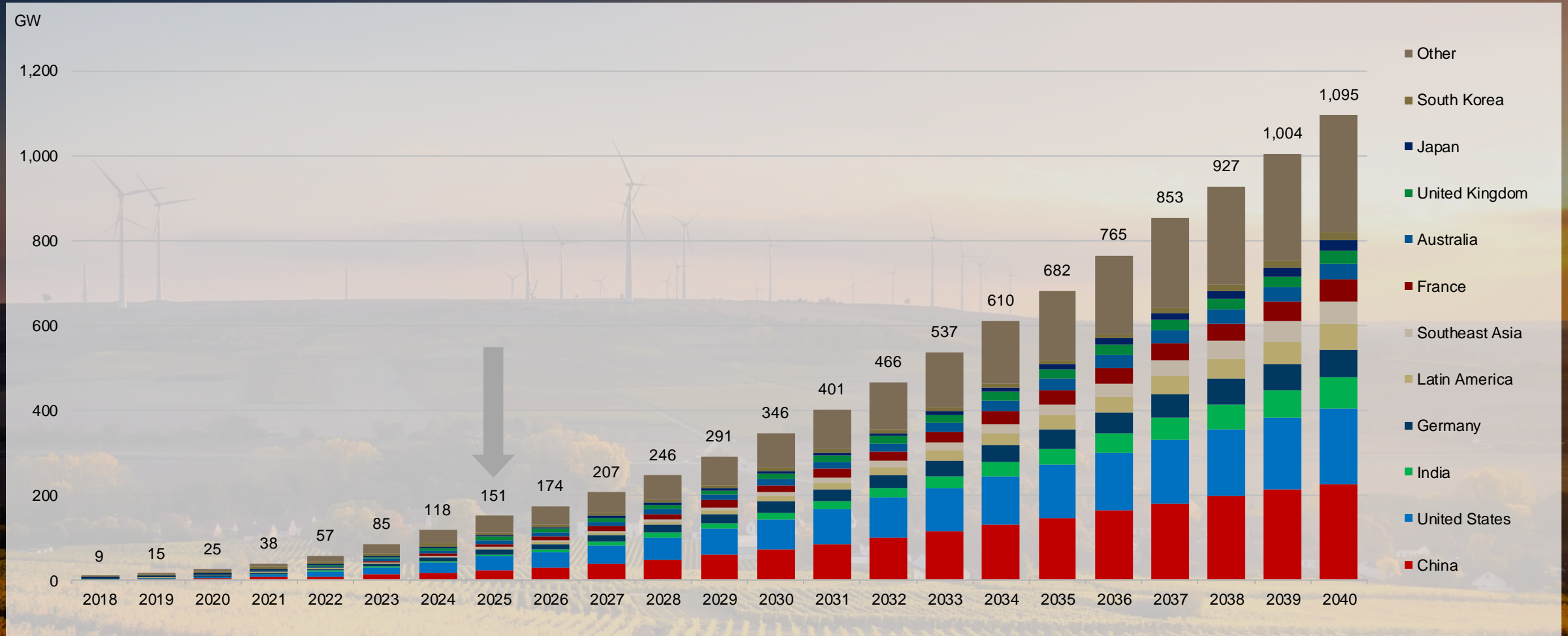
*Applicable to metals, oil & gas, and water*

*The only software that can process the full spectrum of Typhoon™ data*



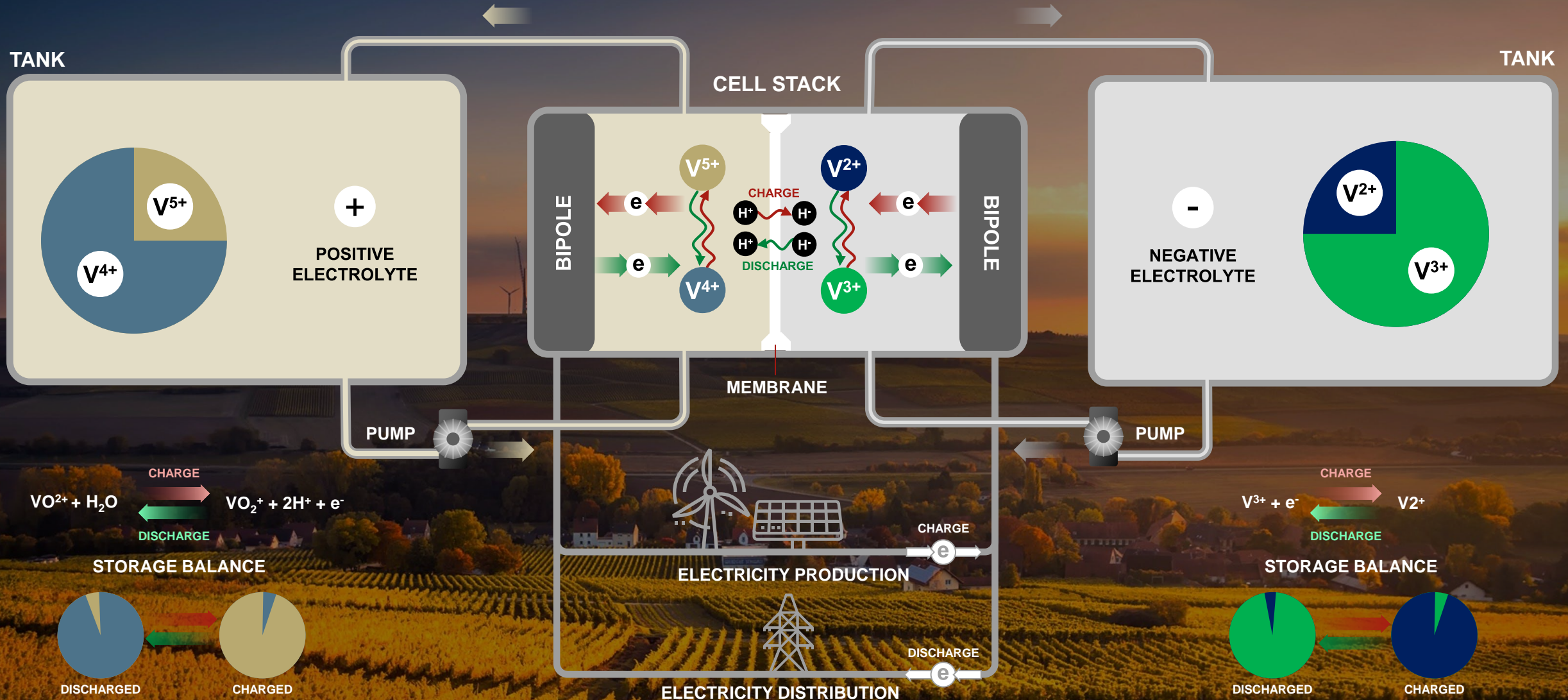
# VRB Energy – A ~150 GW Global Energy Storage Market by 2025

Energy storage market is expected to grow at a compounded rate of 23% per year until 2025



# VRB Energy – Well-Suited to Large-Scale Storage

Long-duration and long-life batteries are essential to integrating solar and wind



## PROPRIETARY TECHNOLOGY



VRB's proprietary electrolyte contains **no heavy metals** and is **non-toxic, non-flammable** and **100% reusable**

## PROVEN COMMERCIAL-SCALE PRODUCT



Over **500 MWh installed or in development**, and **over 1 million hours of testing and operation**

## LOW COST VANADIUM SOURCING & SCALABILITY



**Vertical integration** of vanadium sourcing and **capital-light manufacturing** outcompetes lithium-ion batteries

# Santa Cruz – The Next Generation of USA Development Projects

⚡ Large, high-grade copper resource

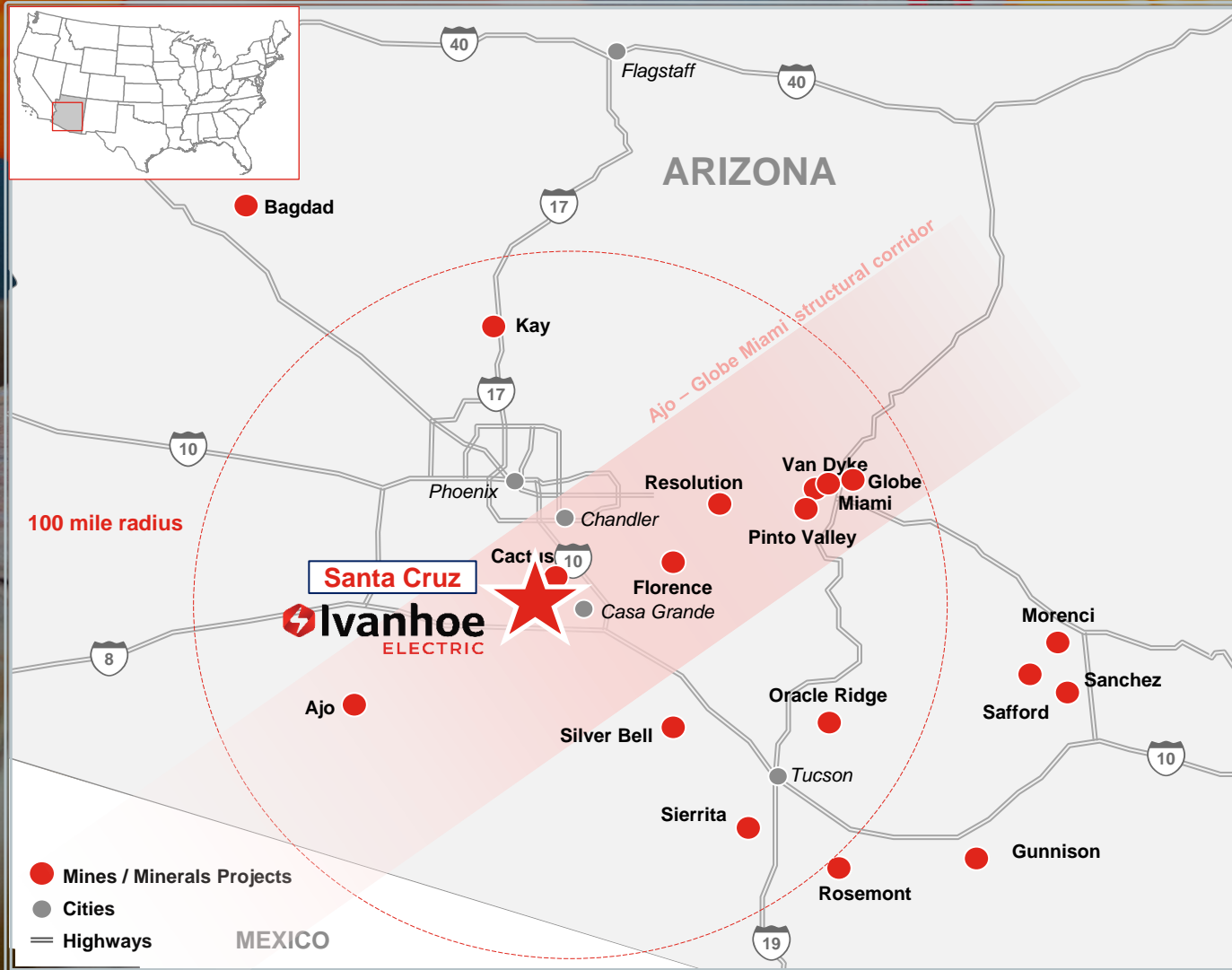
⚡ Expansion potential on private land

⚡ Technology-enabled exploration

⚡ Renewable energy integration opportunity

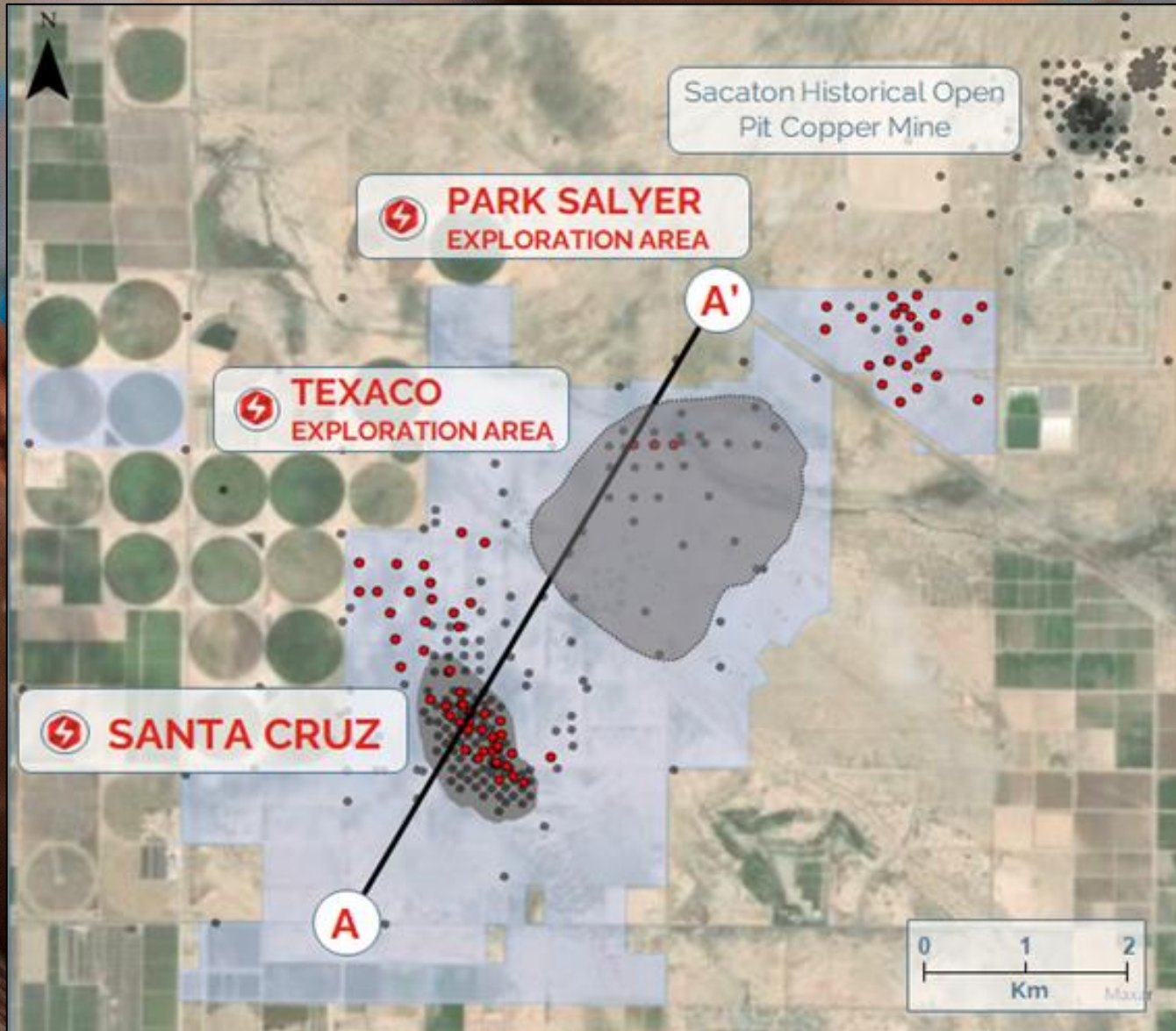


# Santa Cruz – Located in a Prolific Mining District in Arizona



- ⚡ Since 1980, **Arizona has produced ~65% of total USA copper production, over 35 Mt**
- ⚡ An estimated 35% of all known copper resources in Arizona lie along the Ajo to Globe Miami structural corridor
- ⚡ **Ivanhoe Electric has an option to acquire 100% of the Santa Cruz mineral rights** and entered into agreements to acquire further surface rights and mineral titles

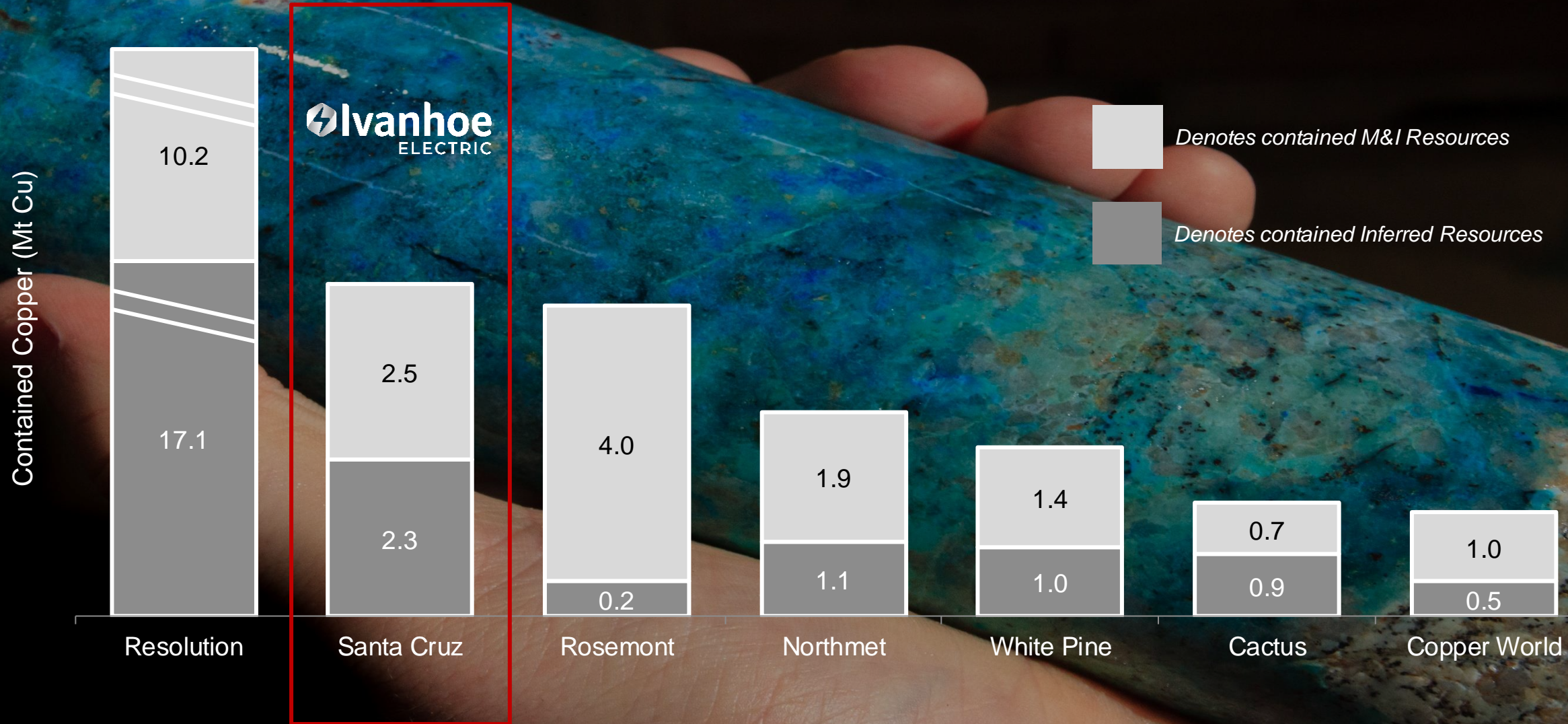
# Santa Cruz – The Largest Currently Known Deposit in the Cluster



### LEGEND

- 2021 Mineral Resource Estimate - Inferred & Indicated
- Copper Discoveries Not Included In 2021 Mineral Resource Estimate
- Historic Drillhole Collar
- Drillhole Trace
- Ivanhoe Electric Drillhole Collar

# Santa Cruz – A Highly Significant Copper Deposit



# Santa Cruz – December 2021 Resource Estimate

**Indicated Resources:** 2.5 Mt of contained copper with an average grade of 0.93%, plus;

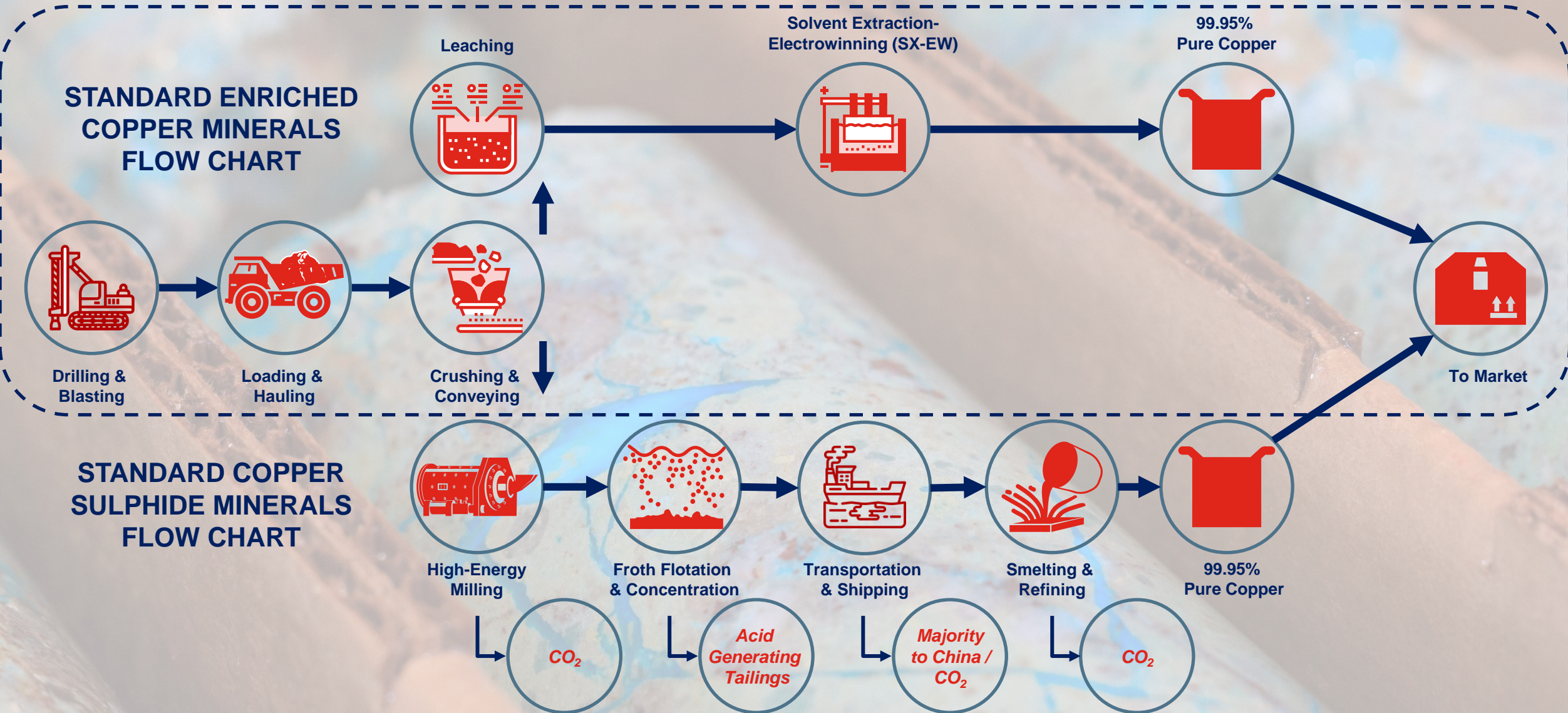
**Inferred Resources:** 2.3 Mt of contained copper with an average grade of 0.91% at a 0.39% Cu cut-off

DEPOSIT	CATEGORY	Cu CUT-OFF GRADE (%)	TONNES (Mt)	TOTAL Cu (%)	ACID SOLUBLE Cu (%)	TOTAL CONTAINED Cu (Mt)	TOTAL CONTAINED ACID SOLUBLE Cu (Mt)
Santa Cruz	Indicated	2.0	22.9	2.58	1.37	0.6	0.3
		1.0	83.4	1.69	0.68	1.4	0.6
		0.8	117.2	1.46	0.52	1.7	0.6
		0.5	219.1	1.07	0.30	2.4	0.7
		<b>0.39</b>	<b>274.0</b>	<b>0.93</b>	<b>0.25</b>	<b>2.5</b>	<b>0.7</b>
	Inferred	2.0	28.1	2.66	1.72	0.7	0.5
		1.0	74.1	1.87	1.08	1.4	0.8
		0.8	98.1	1.63	0.90	1.6	0.9
		0.5	174.9	1.19	0.60	2.1	1.1
		<b>0.39</b>	<b>248.8</b>	<b>0.91</b>	<b>0.44</b>	<b>2.3</b>	<b>1.1</b>

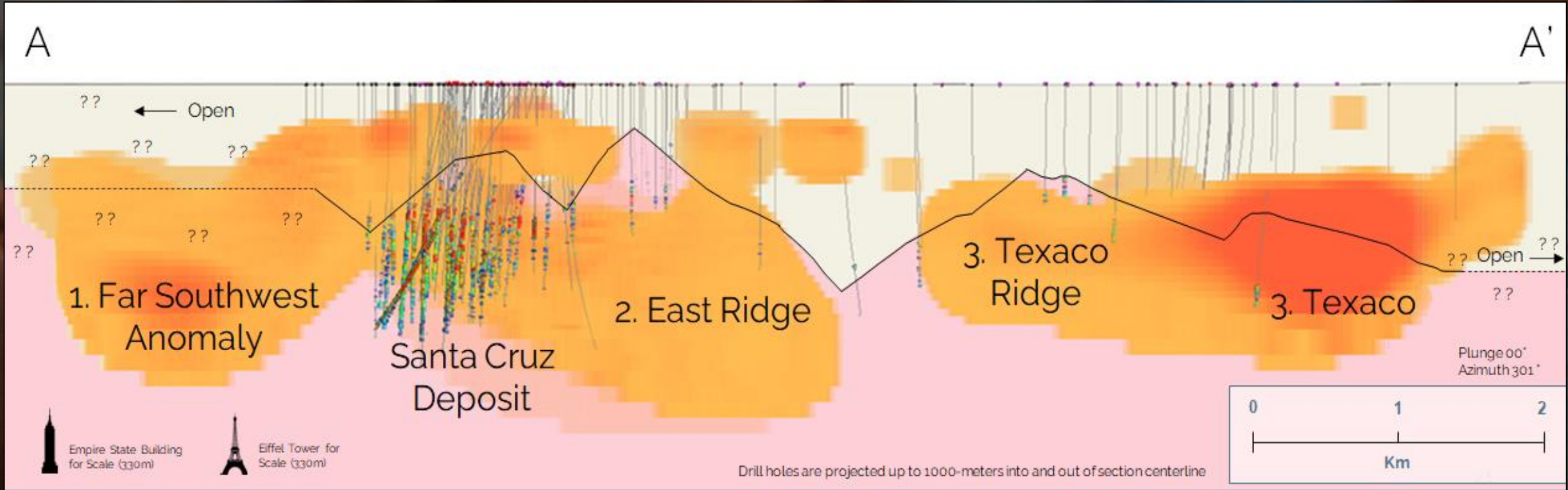


# Santa Cruz – An Enriched Copper Deposit

Processing of enriched minerals typically requires less steps than sulphide minerals to produce copper metal



# Santa Cruz –Typhoon™ Identified Multiple Large-Scale Anomalies



**LEGEND**

<p><b>Geology</b></p> <ul style="list-style-type: none"> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #d3d3d3; border: 1px solid black; margin-right: 5px;"></span> Tertiary Sediments</li> <li><span style="display: inline-block; width: 15px; height: 15px; background-color: #ffb6c1; border: 1px solid black; margin-right: 5px;"></span> Oracle Granite</li> <li><span style="display: inline-block; width: 15px; border-bottom: 1px solid black; margin-right: 5px;"></span> Bedrock Interface</li> </ul>	<ul style="list-style-type: none"> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%; margin-right: 5px;"></span> Historic Drillhole Collar</li> <li><span style="display: inline-block; width: 10px; height: 1px; background-color: black; margin-right: 5px;"></span> Drillhole Trace</li> <li><span style="display: inline-block; width: 10px; height: 10px; border: 1px solid black; border-radius: 50%; margin-right: 5px; background-color: red;"></span> Ivanhoe Electric Drillhole Collar</li> </ul>	<p><b>Total Copper</b></p> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; background: linear-gradient(to top, blue, green, yellow, red); border: 1px solid black; margin-right: 5px;"></div> <div style="text-align: center;"> <p>&gt;1.0%</p> <p>0.2%</p> </div> </div>	<p><b>Preliminary Typhoon 3DIP Data Inversion</b></p> <div style="display: flex; align-items: center;"> <div style="width: 20px; height: 20px; background: linear-gradient(to top, orange, red); border: 1px solid black; margin-right: 5px;"></div> <div style="text-align: center;"> <p>45 mV/V</p> <p>17 mV/V</p> </div> </div>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

# Tintic – Technology-Enabled Discovery in a Historic USA Mining District

⚡ **Copper, gold and silver project**

⚡ **District scale, consolidated land**

⚡ **Targets identified by Typhoon™ appear of similar scale to Bingham Canyon**

⚡ **Renewable energy integration opportunity**



# Tintic – Similarities to Bingham Canyon

Close similarities in geological setting highlight Ivanhoe Electric's belief in porphyry potential at Tintic

## Rio Tinto's Bingham Canyon Porphyry Copper-Gold Mine:

- ⚡ In operation since 1906
- ⚡ One of the most productive copper mines in the world
- ⚡ Produced over 19 million tonnes of copper and 28 million ounces of gold

## Ivanhoe Electric's Tintic Project:

- ⚡ 60 km south of Bingham Canyon
- ⚡ Similar age intrusive complex
- ⚡ Mineralization hosted in the same sedimentary host rocks
- ⚡ The east-west trending intrusive belt is parallel and coeval with the Bingham-Uinta intrusive belt

# Tintic – A Prolific Past-Producing District

## Historic Production on Ivanhoe Electric Property\*



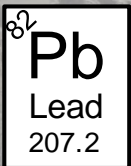
**1.9 million ounces of gold**



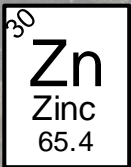
**136 million ounces of silver**



**105,000 tonnes of copper**



**416,000 tonnes of lead**



**6,000 tonnes of zinc**

⚡ Historic operations ceased mining at the water table

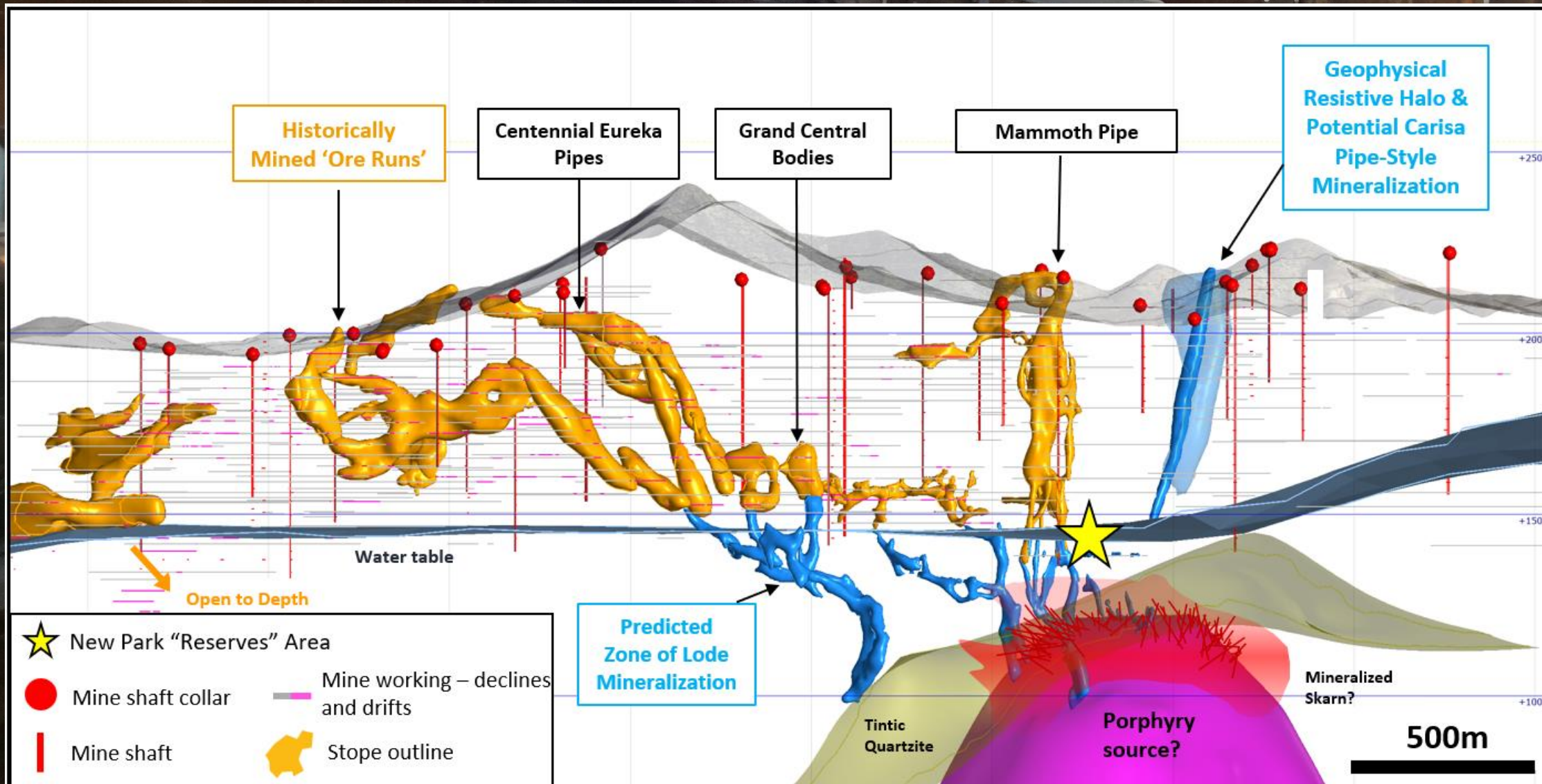
⚡ Ivanhoe Electric believes that mineralization continues to depth

⚡ Significant potential exists to discover additional mineralized material

\*Mining began in 1871, however US Bureau of Mines records only began in 1901.

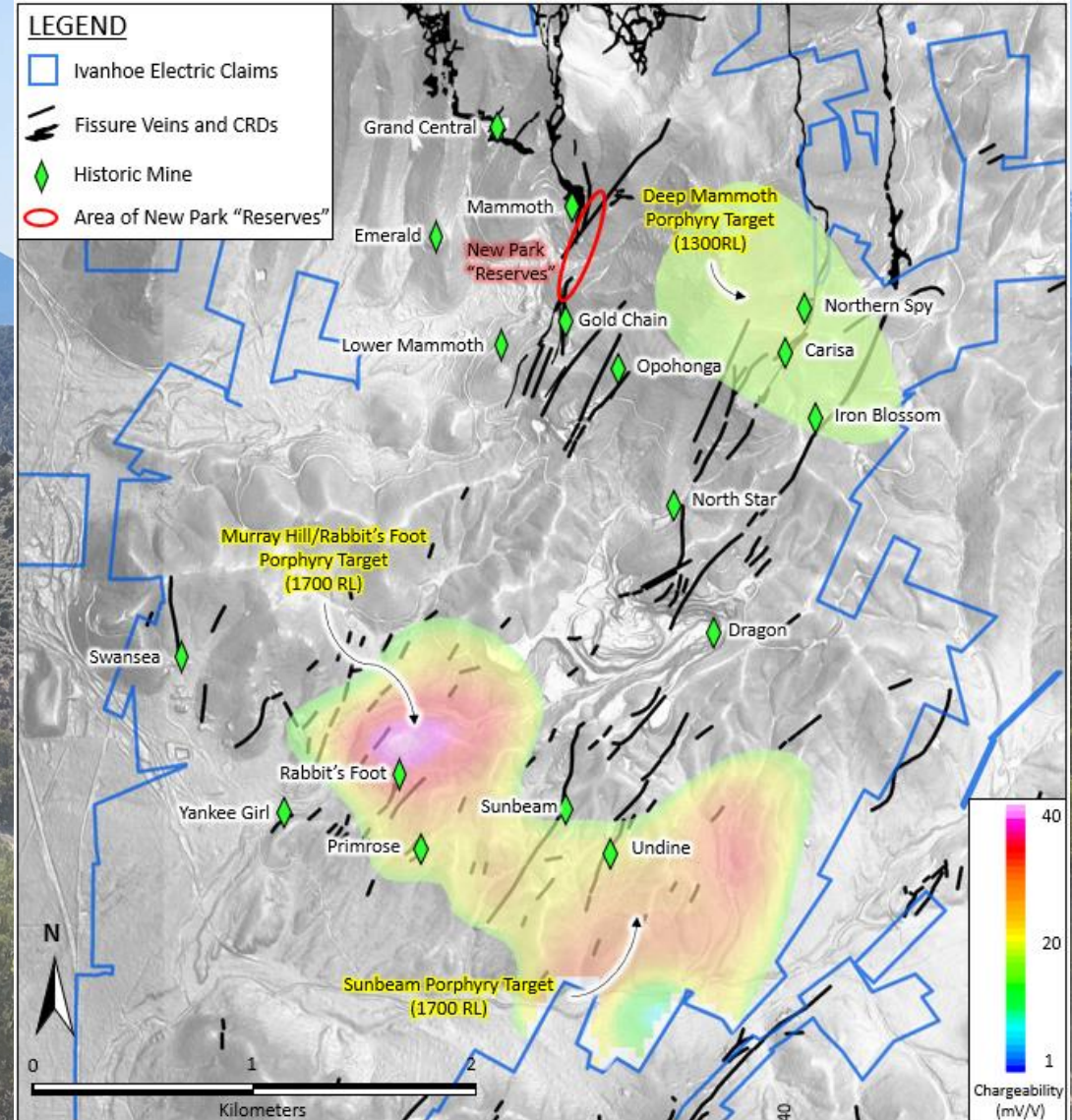
# Tintic – Lode Gold-Silver with Evidence of Porphyry Copper

Historical mining stopped at the water table, but mineralization is believed to continue to depth

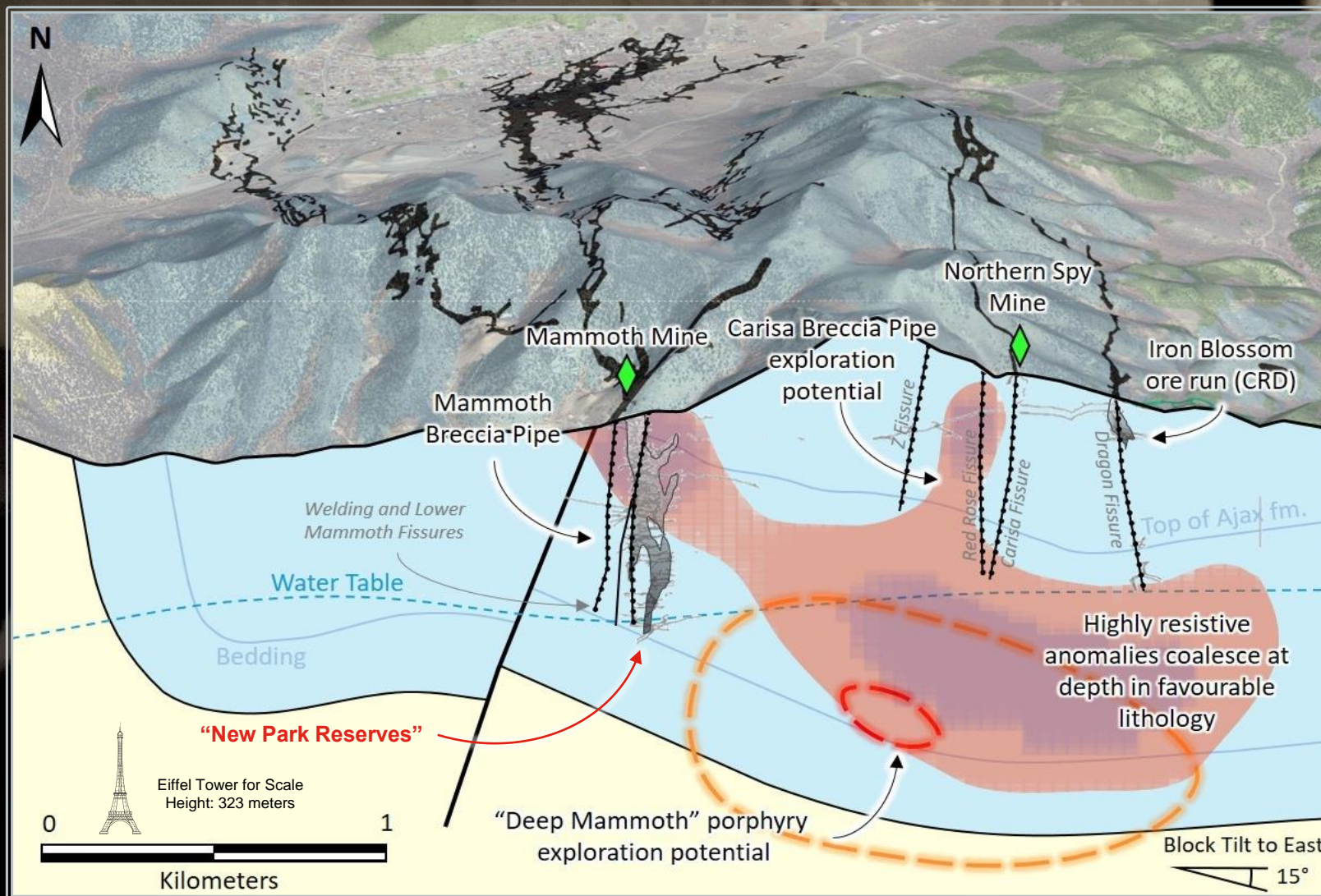


# Tintic – Typhoon™ Survey Completed

72 km<sup>2</sup> 3D Induced Polarization survey – Ivanhoe Electric believes this is the largest of its kind ever completed



# Tintic – Carissa Pipe Target and Mammoth Porphyry Copper-Gold Target with Actual Typhoon™ Data



**LEGEND**

Chargeability Isosurfaces  
 17.5 (mV/V)  
 15

Resistivity Voxel  
 >10,000 (Ohm.m)  
 >5,000

**Lithology**

- Quaternary Cover
- Oligocene Skarns
- Oligocene Intrusions
- Oligocene Volcanics
- Paleozoic Carbonates
- Cambrian Quartzite

**Mineralization**

Carbonate Replacement Deposit (CRD)

Au-Ag-Cu ↔ Pb-Zn  
 HS mineralogy

Digitized historic underground workings



# Clear Advantages of Exploring on Private Land

Private land ownership leads to fewer required permits and a faster process

	Private Land	Federal Minerals Claims
National Environmental Policy Act (“NEPA”) Process	NOT REQUIRED*	REQUIRED
Federal Oversight	NOT REQUIRED*	REQUIRED
State and Local Oversight	REQUIRED	REQUIRED
“Social License to Operate”	REQUIRED	REQUIRED

\*Certain activities can trigger the NEPA process and Federal oversight.

# Hand-Picked Portfolio Providing Exposure to Major Discovery Opportunities



# Ivanhoe Mines is our “Role Model” for ESG Leadership



## Forward Looking Statements

This presentation contains “forward looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Those statements include, but are not limited to, statements with respect to: estimated calculations of mineral reserves and resources at the Company’s properties, plans and objectives, industry trends, the Company’s requirements for additional capital, treatment under applicable government regimes for permitting or attaining approvals, government regulation, environmental risks, title disputes or claims, synergies of potential future acquisitions and the Company’s anticipated uses of the net proceeds from its initial public offering. In some cases, recipients of this presentation can identify these statements by forward looking words such as “may,” “might,” “could,” “should,” “would,” “achieve,” “budget,” “scheduled,” “forecasts,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “predicts,” “potential” or “continue,” the negative of these terms and other comparable terminology. These forward looking statements may include projections of the Company’s future financial performance, the Company’s anticipated growth strategies and anticipated trends in the Company’s industry. All forward looking statements speak only as of the date on which they are made. These statements are not guarantees of future performance and involve certain risks, uncertainties and assumptions concerning future events that are difficult to predict. Therefore, actual future events or results may differ materially from these statements. The Company believes that the factors that could cause its actual results to differ materially from those expressed or implied by forward looking statements include: the Company’s mineral projects are all at the exploration stage; the Company has no mineral reserves; the Company has a limited operating history on which to base an evaluation of the Company’s business and prospects; the Company depends on its material projects for its future operations; the Company’s mineral resource calculations at the Santa Cruz Project are only estimates; actual capital costs, operating costs, production and economic returns may differ significantly from those the Company has anticipated; the title to some of the mineral properties may be uncertain or defective; the Company’s business is subject to changes in the prices of copper, gold, silver, nickel, cobalt, vanadium and platinum group metals; the Company has claims and legal proceedings against it; the Company’s business is subject to significant risk and hazards associated with mining operations; the Company’s failure to identify attractive acquisition candidates or joint ventures with strategic partners or its inability to successfully integrate acquired mineral properties or successfully manage joint ventures impacts the Company’s business; the Company’s business is extensively regulated by the United States and foreign governments as well as local governments; the requirements that the Company obtains, maintains and renews environmental, construction and mining permits are often a costly and time consuming process; the Company’s non-U.S. operations are subject to additional political, economic and other uncertainties not generally associated with domestic operations and the Company’s operations may be impacted by the COVID 19 pandemic, including impacts to the availability of its workforce, government orders that may require temporary suspension of operations, and the global economy. These factors should not be construed as exhaustive and should be read in conjunction with the other cautionary statements included in this presentation. These risks and uncertainties, as well as other risks of which the Company is not aware or which the Company currently does not believe to be material, may cause the Company’s actual future results to be materially different than those expressed in the Company’s forward looking statements. For a detailed discussion of the risk factors that could affect the Company’s actual results, please refer to the risk factors identified in the Company’s under the heading “Risk Factors” in the prospectus

dated June 27, 2022 related to the Company’s initial public offering and any reports that the Company has filed or may file with the Securities and Exchange Commission (the “SEC”), which are available on the SEC’s website at [www.sec.gov](http://www.sec.gov). The Company cautions recipients of this presentation not to place undue reliance on these forward looking statements. The Company does not undertake any obligation to make any revisions to these forward looking statements to reflect events or circumstances after the date of this presentation or to reflect the occurrence of unanticipated events, except as required by law. All written and oral forward looking statements attributable to the Company, or persons acting on its behalf, are expressly qualified in their entirety by these cautionary statements. Recipients of this presentation should evaluate all forward looking statements made in this presentation in the context of these risks and uncertainties.

## Market and Industry Data

This presentation includes market and industry data and forecasts obtained from independent research reports, publicly available information, various industry publications, other published industry sources or internal data and estimates. Independent research reports, industry publications and other published industry sources generally indicate that the information contained therein was obtained from sources believed to be reliable, but do not guarantee the accuracy and completeness of such information. Although the Company believes that the publications and reports are reliable, the Company has not independently verified the data. Internal data, estimates and forecasts are based on information obtained from trade and business organizations and other contacts in the markets in which we operate and the Company’s understanding of industry conditions. Although the Company believes that such information is reliable, we have not had such information verified by any independent sources. As a result, Recipients of this presentation should be aware that any such information and data set forth in this presentation, and estimates and beliefs based on such information and data, are uncertain and may not be reliable.

## Scientific and Technical Information

Disclosures of a scientific or technical nature regarding Ivanhoe Electric's minerals projects have been reviewed and approved by Charles Forster, P.Geol and Mark Gibson, P.Geol, each of whom is considered by virtue of education, experience, and professional association, a Qualified Person under the terms of NI 43-101. Mr. Forster or Mr. Gibson have verified the technical data disclosed in this presentation.

As used herein, references to the "Santa Cruz Technical Reports" are to the Technical Report "Summary on the Santa Cruz Project, Arizona, U.S.A.", prepared by Nordmin Engineering Ltd. ("Nordmin"), with an effective date of June 7, 2022, which was prepared in accordance with the requirements of S-K 1300 and the "NI 43-101 Technical Report and Mineral Resource Estimate for the Santa Cruz Project, Arizona, U.S.A.", prepared by Nordmin, with an effective date of June 7, 2022, which was prepared in accordance with the requirements NI 43-101.

As used herein, references to the "Tintic Technical Reports" are to the "SEC Technical Report Summary, Exploration Results Report, Tintic Project Utah, U.S.A.", prepared by SRK Consulting (U.S.) Inc. ("SRK"), with an effective date of May 5, 2021, which was prepared in accordance with the requirements of S-K 1300 and the "NI 43-101 Technical Report: Mineral Project Exploration Information, Tintic Project Utah, U.S.A.", prepared by SRK, with an effective date of May 5, 2021, which was prepared in accordance with the requirements NI 43-101.

This presentation uses the term "inferred resources." Inferred resources are subject to uncertainty as to their existence and as to their economic and legal feasibility. The level of geological uncertainty associated with an inferred mineral resource is too high to apply relevant technical and economic factors likely to influence the prospects of economic extraction in a manner useful for evaluation of economic viability.

## *Note on Santa Cruz Mineral Resources.*

The Mineral Resources at the Santa Cruz Project disclosed in this presentation were independently prepared by Nordmin, and were prepared and classified in accordance with the definitions for Mineral Resources in S-K 1300. The Mineral Resources have an effective date of December 8, 2021. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. This estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, sociopolitical, marketing, or other relevant issues. Verification included multiple site visits to inspect drilling, logging, density measurement procedures and sampling procedures, and a review of the control sample results used to assess laboratory assay quality. In addition, a random selection of the drill hole database results was compared with original records. The Mineral Resources in this estimate for the Santa Cruz deposit used Datamine Studio RM software to create the block models. Underground Mineral Resources are reported at a CoG of 0.35% Total Cu, which is based upon a Cu price of US\$3.70/lb and a Cu recovery factor of 80%. SG was applied using weighted averages by lithology. All figures are rounded to reflect the relative accuracy of the estimates, and totals may not add correctly. Excludes unclassified mineralization located along edges of the Santa Cruz deposit where drill density is poor. Report from within a mineralization envelope accounting for mineral continuity.



# Ivanhoe

ELECTRIC

For more information,  
visit [IvanhoeElectric.com](http://IvanhoeElectric.com)

