Uranium Exploration in Saskatchewan's Athabasca Basin and the Western United States

TSXV: NSU

NORTH SHORE URANIUM

July 22, 2025

NORTH SHORE URANIUM LTD.

www.northshoreuranium.com

FORWARD-LOOKING STATEMENTS

Certain statements in this presentation are forward-looking statements. Forward-looking statements consist of statements that are not purely historical, including any statements regarding beliefs, plans, expectations or intentions regarding the future. Often, but not always, forward-looking statements can be identified by the use of words such as “plans”, “expects”, “budget”, “project”, “scheduled”, “estimates”, “forecasts”, “intends”, “anticipates”, “appear”, “interpret”, “coincident”, “potential”, “confirm”, “suggest”, “evaluate”, “encourage”, “likely”, “anomaly”, “continuous” or “believes” or variations (including negative and grammatical variations) of such words and phrases or statements that certain actions, events or results “may”, “could”, “would”, “should”, “might” or “will” be taken, occur or be achieved. Forward-looking statements may include, but are not limited to, statements with respect to the future financial or operating performance of the Company and its mineral projects, the estimation of mineral resources, the timing and amount of estimated future production and capital, operating and exploration expenditures. Such forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause North Shore Uranium Ltd. (“North Shore” or the "Company”) actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. No assurance can be given that any of the events anticipated by the forward-looking statements will occur or, if they do occur, what benefits the Company will obtain from them. Forward-looking statements reflect management's current views and are based on certain expectations, estimates and assumptions which may prove to be incorrect.

A number of risks and uncertainties could cause actual results to differ materially from those expressed or implied by forward-looking statements, including, but not limited to: the actual results of current and planned exploration activities including the potential for the definition of a mineral deposit of potential economic value; that drilling results, geophysical survey results and/or interpretations thereof are defining potentially mineralized corridors; results from future exploration programs including drilling; interpretation and meaning of completed and future geophysical surveys; conclusions of future economic evaluations; changes in project parameters as plans to continue to be refined; possible variations in grades of mineralization and/or future actual recovery rates; accidents, labour disputes and other risks of the mining industry; delays in obtaining governmental approvals or financing; geological risks; global economic conditions; mineral price fluctuations; financial markets in general and the Company’s ability to access capital, as significant amounts of additional capital will be required to support operations in the future; competition for properties and experienced employees; minerals industry competition and international trade restrictions; possible loss of interests in exploration and development properties; mining and mineral exploration is inherently dangerous and subject to factors beyond the Company’s control; the nature of exploration and development projects; environmental regulatory requirements and risks; currency fluctuations; government regulation and policy risks; the Company has no history of mining operations; property title rights; dependence on key personnel and qualified and experienced employees; delineation of mineral reserves and additional mineral resources; insurance coverage; dilution from further equity financing and outstanding stock options and warrants; the market price of the Company’s shares; the Company has never paid dividends and may not do so in the foreseeable future; litigation and other legal proceedings; technical innovation and obsolescence; disclosure and internal controls; conflicts of interest; and the completion and fulfillment of expected terms of the Transaction in New Mexico including the parties’ abilities to meet the closing conditions, the number of securities to be issued by the Company, receipt of all necessary approvals, completion of satisfactory due diligence, completion of a minimum $750,000 financing or any financing by the Company, the Company’s ability to meet milestones, make bonus payments or meet other terms and the highly speculative nature of the Transaction given the early-stage nature of Rio Puerco.

There may be other factors that cause actions, events or results not to be as anticipated, estimated or intended. Actual exploration results obtained from exploration programs undertaken by North Shore, the content of those exploration programs and the size of exploration properties in the future may materially differ from those suggested in any forward-looking statements herein. While the Company has noted in this presentation the proximity of its properties to properties owned by other companies with metals discoveries, resources and reserves, there is no assurance that work on the Company’s properties will yield the same or similar results.

Forward-looking statements are made as of the date of this presentation and, except as required by applicable securities laws, the Company assumes no obligation to update these forward-looking statements, or to update the reasons why actual results differed from those projected in the forward-looking statements. Forward-looking statements are not guarantees of future performance and accordingly undue reliance should not be put on such statements due to the inherent uncertainty therein. Additional information about these and other assumptions, risks and uncertainties are set out in the Company’s Amended and Restated Filing Statement dated September 21, 2023 filed with Canadian security regulators.

Mr. Brooke Clements, President and CEO of North Shore, a Qualified Person as defined by National Instrument 43-101 – Standards of Disclosure for Mineral Projects, has reviewed and approved the scientific and technical disclosure in this presentation. This presentation shall not constitute an offer to sell or the solicitation of an offer to buy securities. Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this presentation.

SUMMARY

Global interest in nuclear energy continues to grow as a reliable and clean source of electricity with no CO_2 emissions.

- Nov. 2024 COP29 declaration to triple nuclear power by 2050 endorsed by 31 countries including the USA and Canada
- Recent “high-tech” commitments to nuclear power, including restarting a reactor at Three Mile Island in Pennsylvania
- Spot uranium price surpassed US$100/lb. in Jan. 2024, levels not seen since 2007, currently around US$78/lb[1]
- 440 active reactors, 70 under construction, over 400 planned or proposed[2]
- May 23 Executive Orders in the United States lend support to nuclear power and uranium projects

What does this create? **Significant opportunity** for uranium explorers like **North Shore** with quality exploration projects in two well-known jurisdictions.

Two properties in Saskatchewan’s **Athabasca Basin;** Maiden drill campaign in 2024 confirmed new **near-surface uranium mineralization** at the Falcon property.

Binding term sheet signed to acquire up to 87.5% of the Rio Puerco uranium project in the **Grants Uranium District** of New Mexico with a **historical inferred resource estimate of 11.4M lbs. of U_3O_8[3].**

Strong, experienced technical and capital markets team.

1) (Trading Economics): (link)
2) (World Nuclear Assoc.): (link)
3) (2011 AusAmerican Technical Report): (link)

NORTH SHORE URANIUM TEAM

DIRECTORS

Brooke Clements
President and CEO, experienced mining executive.

Jimmy Thom
Geologist and Exploration Manager for ASX-listed Dynamic Metals and Jindalee Resources (2021-present), Formerly with **Paladin Energy Limited** (2009-2021), Exploration Manager from 2018-2021.

Doris Meyer
Past and present independent director of a number of publicly listed exploration companies.

James Arthur
Senior Legal Counsel and Senior Director, Keysight Technologies, an S&P 500 company.

Andrew Stewart
Partner in the Capital Markets and Securities Group at Cozen O'Connor, an AMLaw 100 International law firm.

MANAGEMENT, ADVISORS and KEY INVESTORS

Brooke Clements (President, CEO) Geologist with +35 years industry experience, President Peregrine Diamonds (2007-2015), Senior Vice President Peregrine Metals (2007-2011), VP Exploration Ashton Mining of Canada (1999-2007). Received the AMEBC Hugo Dummett award twice (2010 and 2018) and the PDAC Bill Dennis award (2019) in recognition of diamond discoveries.

Dan O'Brien (Chief Financial Officer)
20+ years of industry experience. CFO for a number of publicly listed exploration companies.

Ben Meyer (Corporate Secretary)
10+ years industry experience in corporate and regulatory compliance.

Blake Steele (Advisor)
Former President/CEO **Azarga Uranium Corp.** (TSX:AZZ) (2015-2022) prior to its successful sale to enCore Energy for C$200M.

Alex Molyneux (Founding investor)
Former CEO of **Paladin Energy Limited** (2015-2018).

CAPITAL STRUCTURE

SHARE CAPITAL SUMMARY[1]	
Shares outstanding	40,330,959
Share price (TSXV:NSU)	C$0.055/share
Market capitalization	C$2.2 M
Warrants and options	529,389
Fully diluted	**40,860,348**

1) As at July 22, 2025

Insiders and founding investors hold approximately **43.3%** of issued shares*.

Target FA025, Falcon property, near mapped location of the D Zone showing

14.92 M shares (36.5% of issued shares) held by 6 founding investors are subject to a voluntary pooling agreement that restricts the disposition of these shares before October 19, 2026.

** Share information provided by the Company and founding investors*

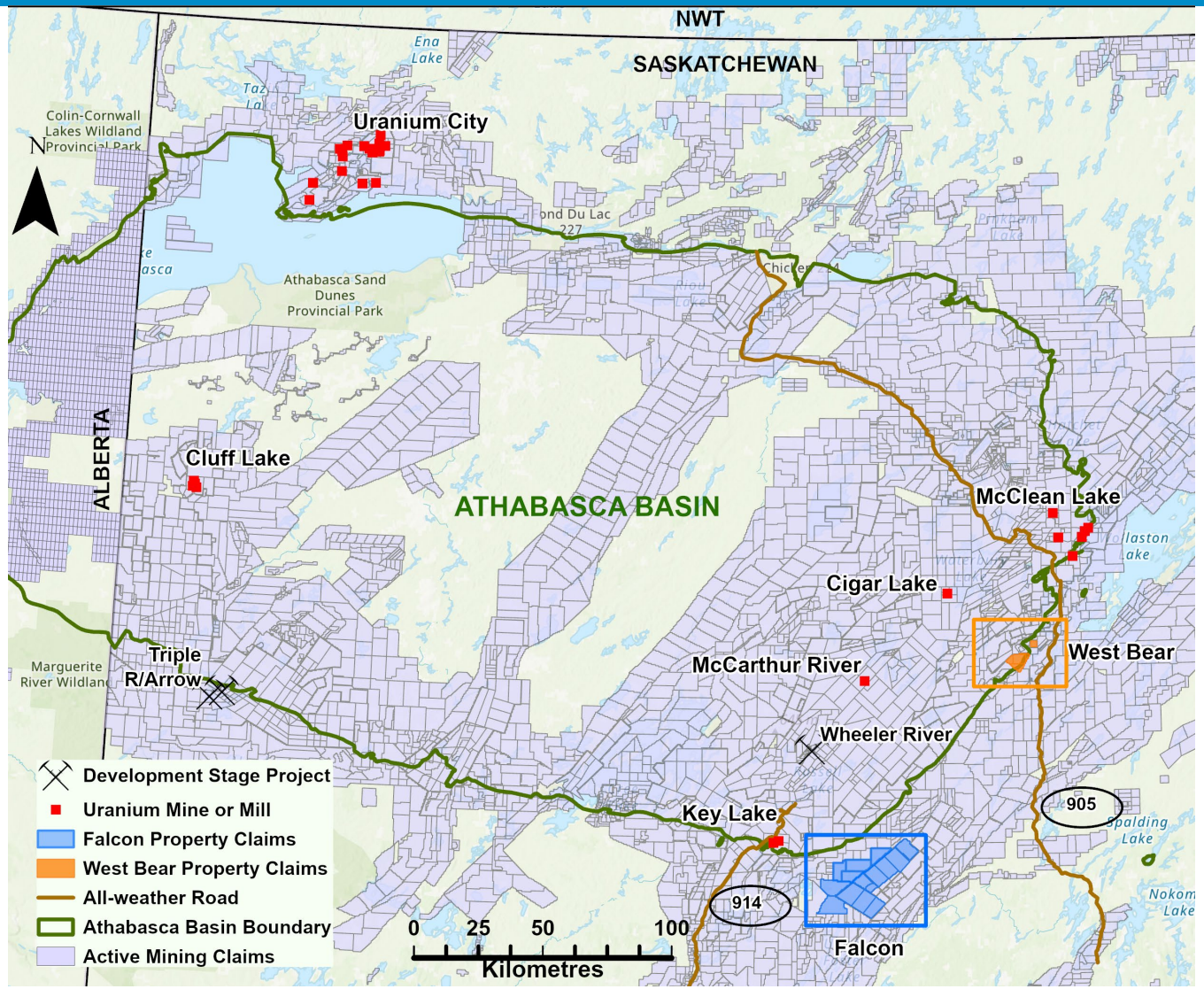
ATHABASCA BASIN OVERVIEW

The Company's Falcon and West Bear properties with established uranium cover over **60,000 ha** at the eastern margin of the Basin, Falcon and West Bear, are near:

- Two active mines that account for 100% of Canada's uranium production, Cigar Lake and McCarthur River
- Operating uranium mills located at McClean Lake and Key Lake that process the mined uranium ore

Previously unknown, near-surface uranium mineralization discovered in the Company's maiden drill program in March 2024 at two Falcon targets; up to 572 ppm U_3O_8.

Multiple priority targets have yet to be tested at Falcon and West Bear. North Shore is now prioritizing targets for future drill programs.



Mine and mill locations, and geologic information from Saskatchewan government database, claim data on March 25, 2025.

ATHABASCA BASIN URANIUM MINERALIZATION MODEL

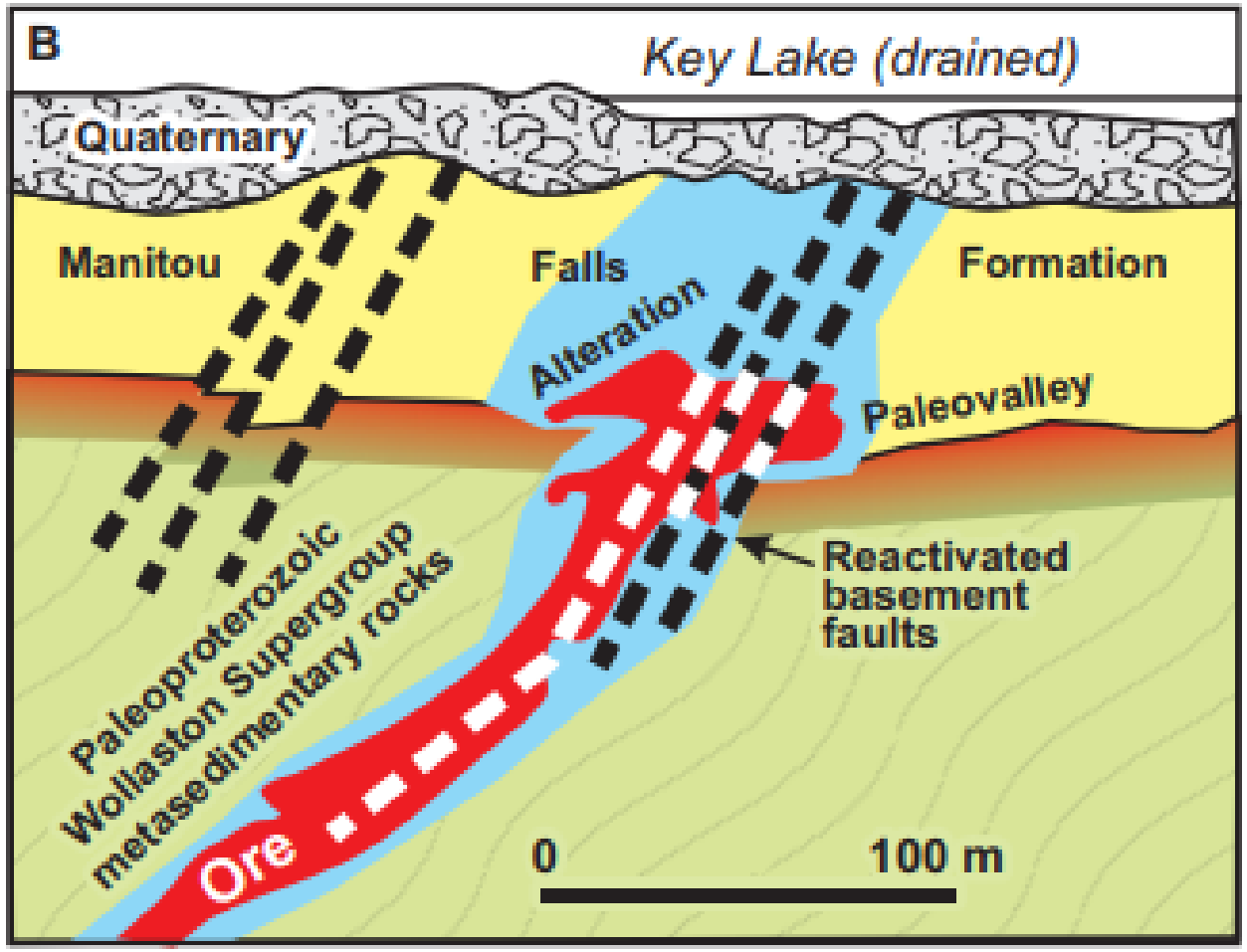
At the Key Lake Mine, which closed in 2002 and is located 30 km west of Falcon and 110km southwest of West Bear, unconformity-associated uranium ore was mined.

Uranium at Key Lake is spatially related to the intersection between fertile basement faults and the unconformity between the overlying sandstone (Manitou Falls Formation) and the underlying basement rocks (the Wollaston domain). Uranium ore at Key Lake is both sandstone-hosted and basement-hosted.

At Falcon, the sandstone has been eroded so the target is basement-hosted mineralization.

Sandstone covers the basement in over 80% of West Bear, therefore the target there is sandstone- and/or basement-hosted mineralization.

Cross-section from Historic Key Lake Mine, Saskatchewan



From Jefferson et al., 2007, Unconformity-associated uranium deposits of the Athabasca Basin, Saskatchewan and Alberta, in "Mineral Deposits of Canada", Geological Assoc. of Canada Special Publication No. 5.

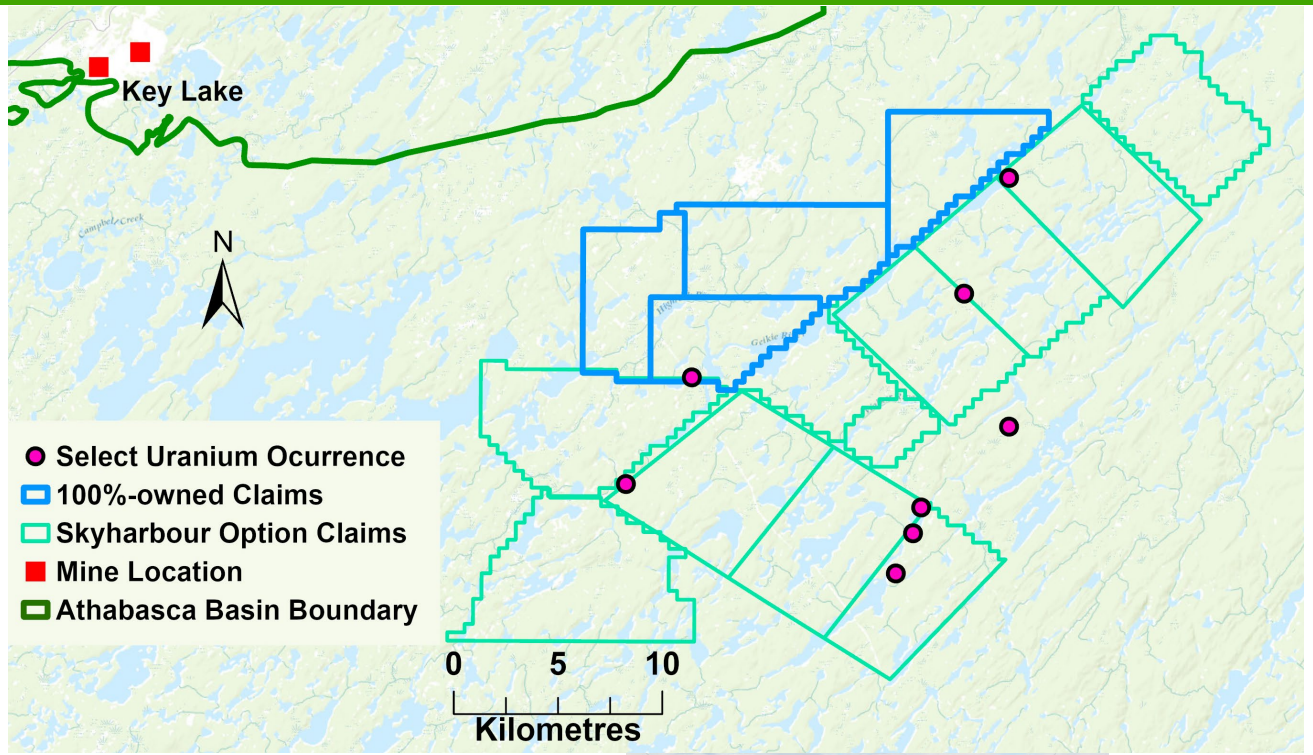
FALCON PROPERTY: OVERVIEW

15 claims, 55,303 hectares

- 100% ownership of 4 claims (12,791 ha)
- Option to earn up to a 100% in 11 claims (42,512 ha) by October 2027 from Skyharbour Resources Ltd.
- Exploration Agreement with the English River First Nation announced March 2025

Excellent Access and Infrastructure:

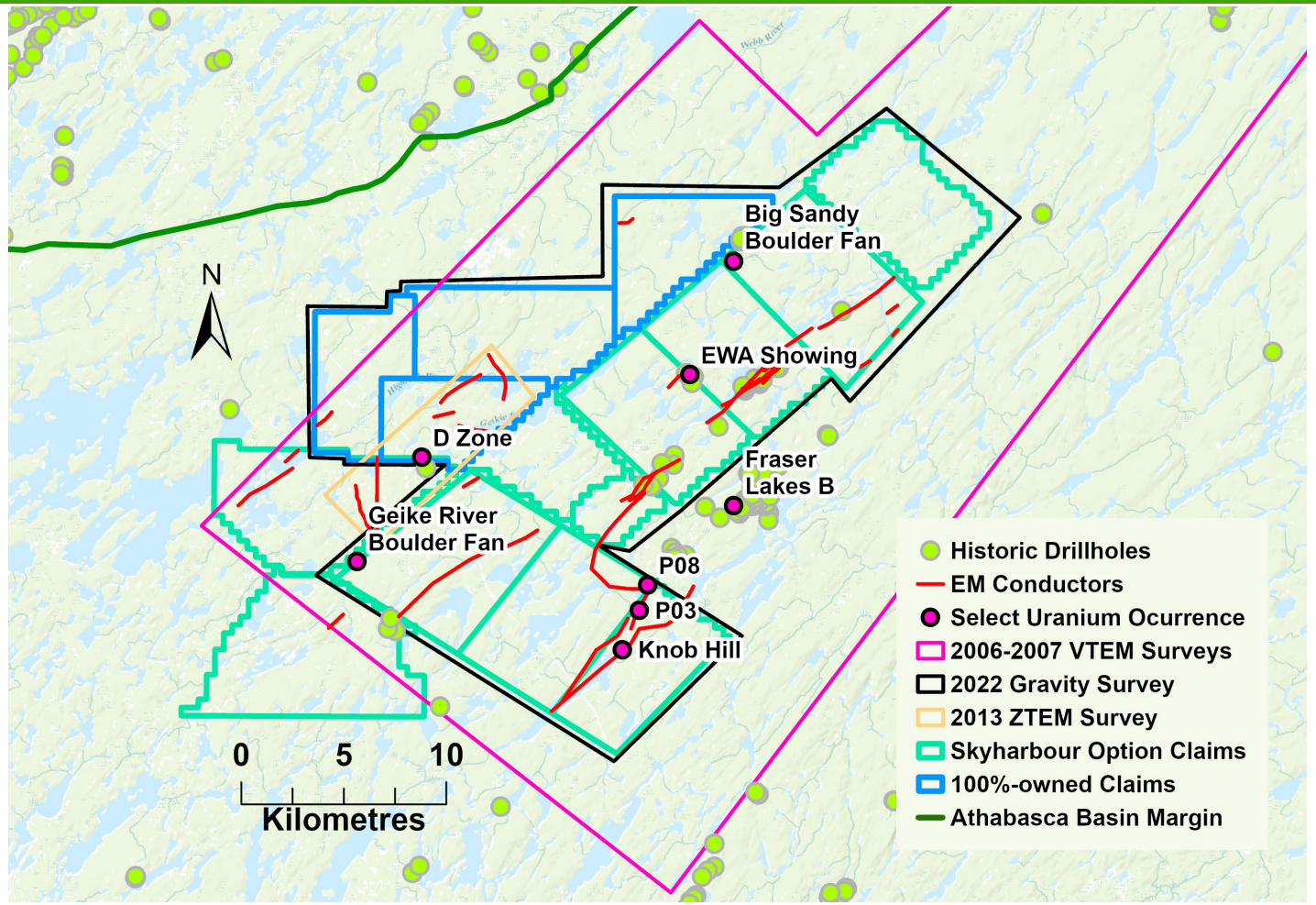
- 30 km east of the active Key Lake uranium mill. From 1983-2002, the mine produced 220 M lbs. of U_3O_8 at an avg. grade of more than 2.0%[1]
- Power line at eastern edge of property



1: Source: Government of Saskatchewan – Mineral Deposit Query (link). There is no guarantee that a similar deposit will be discovered at Falcon. Information on map from Saskatchewan database.

FALCON: HISTORIC WORK

- 1960s to 2000s, exploration programs included airborne surveys, prospecting and limited drilling
- Multiple “radioactive boulders” and uranium showings discovered
- 2006, 2007 and 2013 high-resolution, heli-borne electromagnetic and magnetic surveys cover +90% of property
- In 2008, JNR Resources drilled 28 holes on the current property; discovered Fraser Lakes Zone B deposit just east of property in that program
- High resolution airborne gravity-magnetic-radiometric surveys flown in **2022** cover 80% of the property
  - **Integrating the 2022 data with previous datasets and drilling results gives North Shore new interpretation insights**



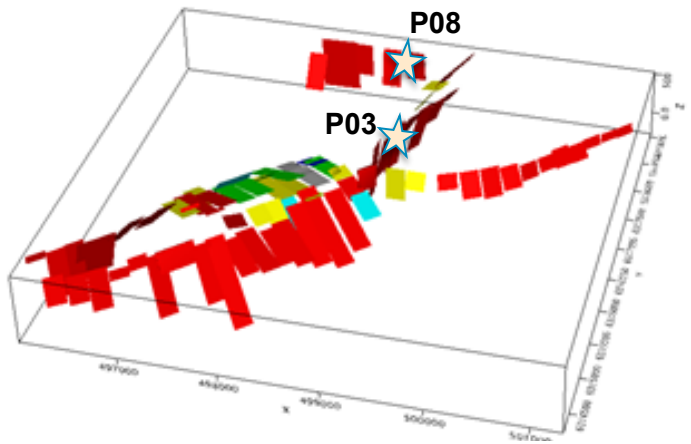
Airborne survey outlines, drill hole, EM conductor and uranium occurrence locations from Saskatchewan government and North Shore databases

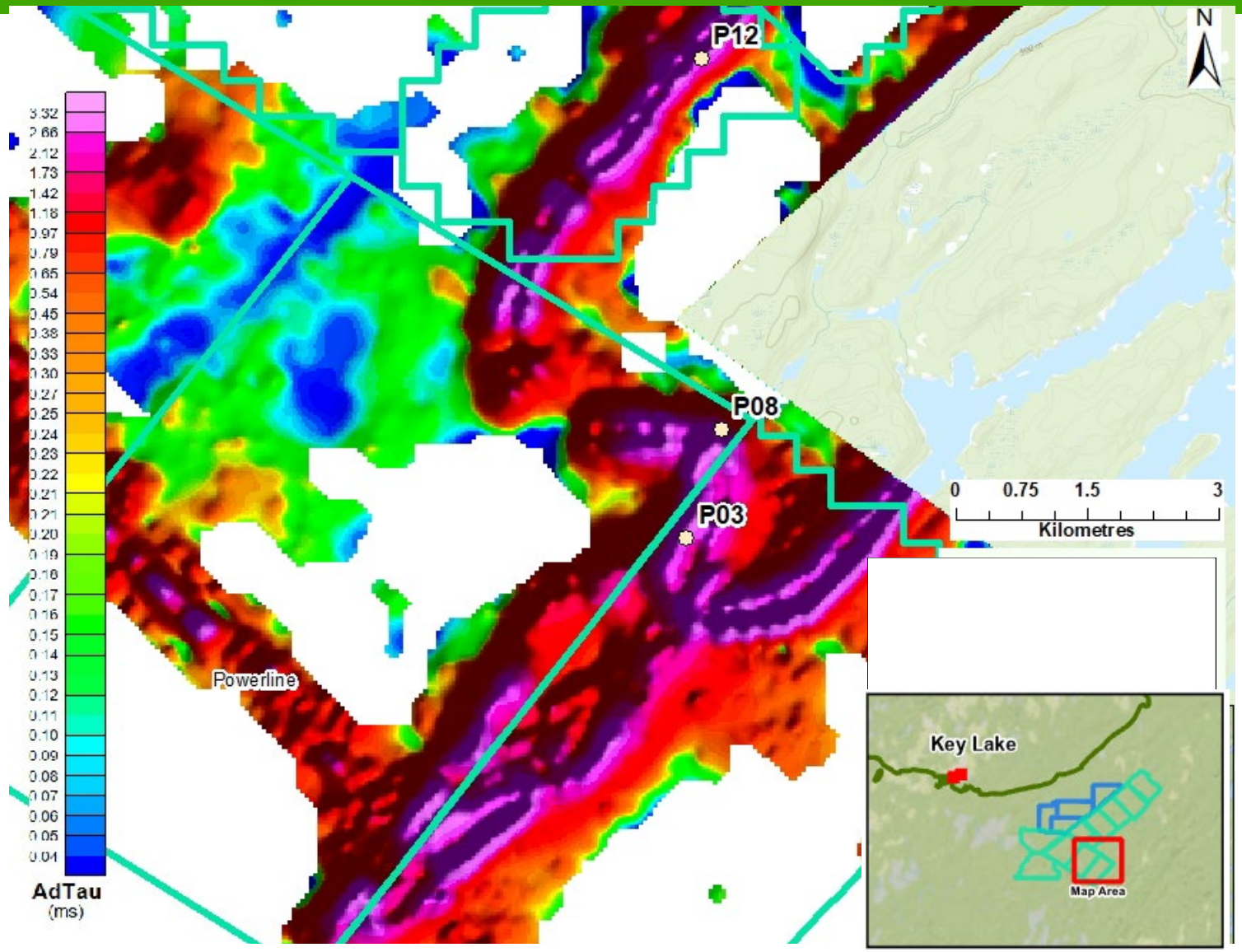
FALCON: 2024 DRILL TARGETS – EM

3 targets drilled in March 2024 in areas with no previous drilling

Near-surface U mineralization at P03 and P08, P12 abandoned at 107 m due to unstable ground conditions

EM conductor plate models generated using EMIT Maxwell software





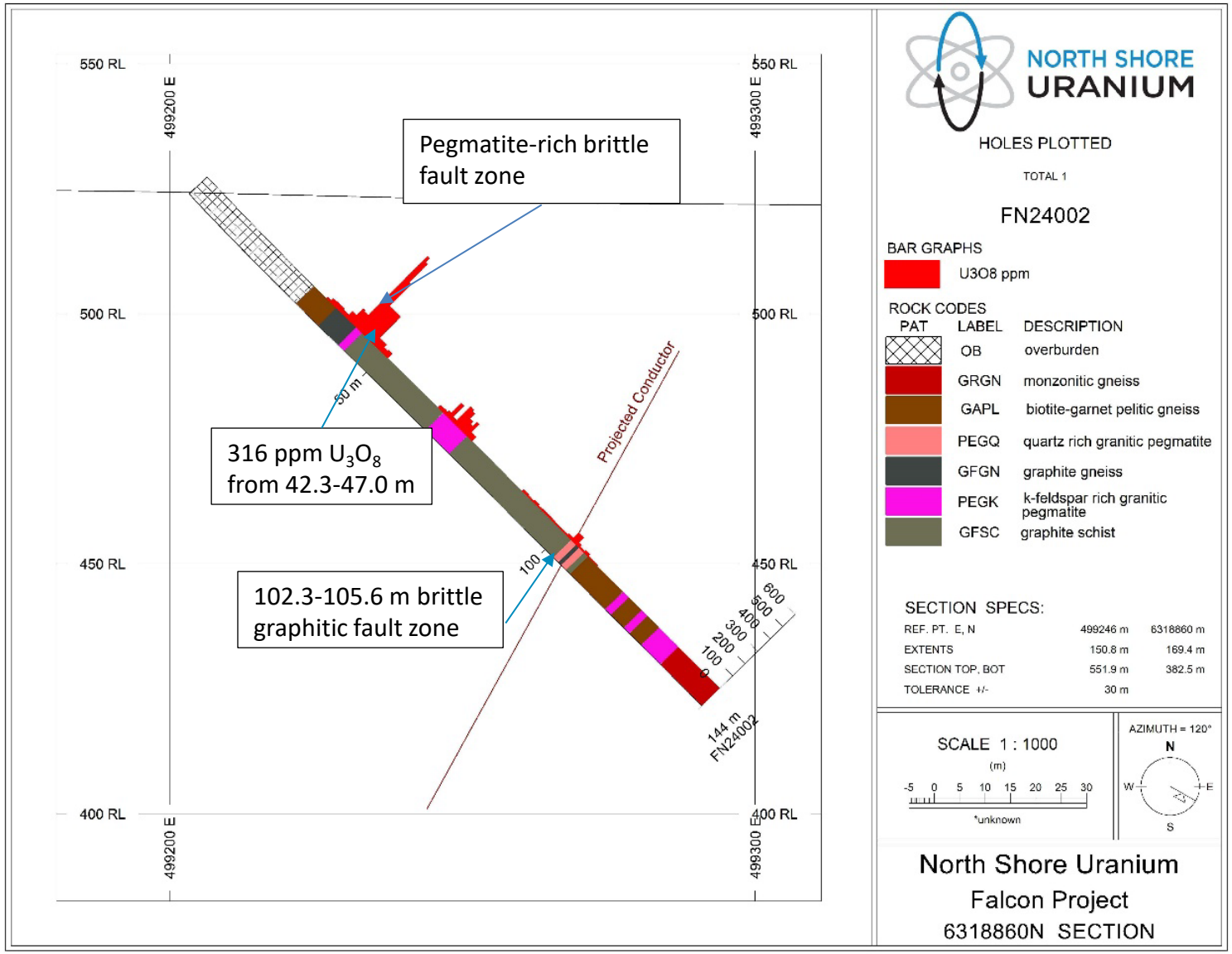
2006 and 2007 airborne survey data was processed and the EM conductor plate models were prepared by Condor North Consulting ULC

FALCON: DRILLHOLE FN24002 (TARGET P08)

Anomalous Uranium U_3O_8 (ppm)[1]				
From (m)	To (m)	Interval (m)	Interval Value	Max. Value
34.0	40.6		NAR	51
40.6	41.2	0.5	**103**	103
41.2	42.3		NAR	98
42.3	47.0	4.7	**316**	**572**
47.0	67.6		NAR	49
67.6	68.4	0.8	**110**	110
68.4	69.4		NAR	22
69.4	71.0	1.6	**128**	132
71.0	109.5		NAR	96

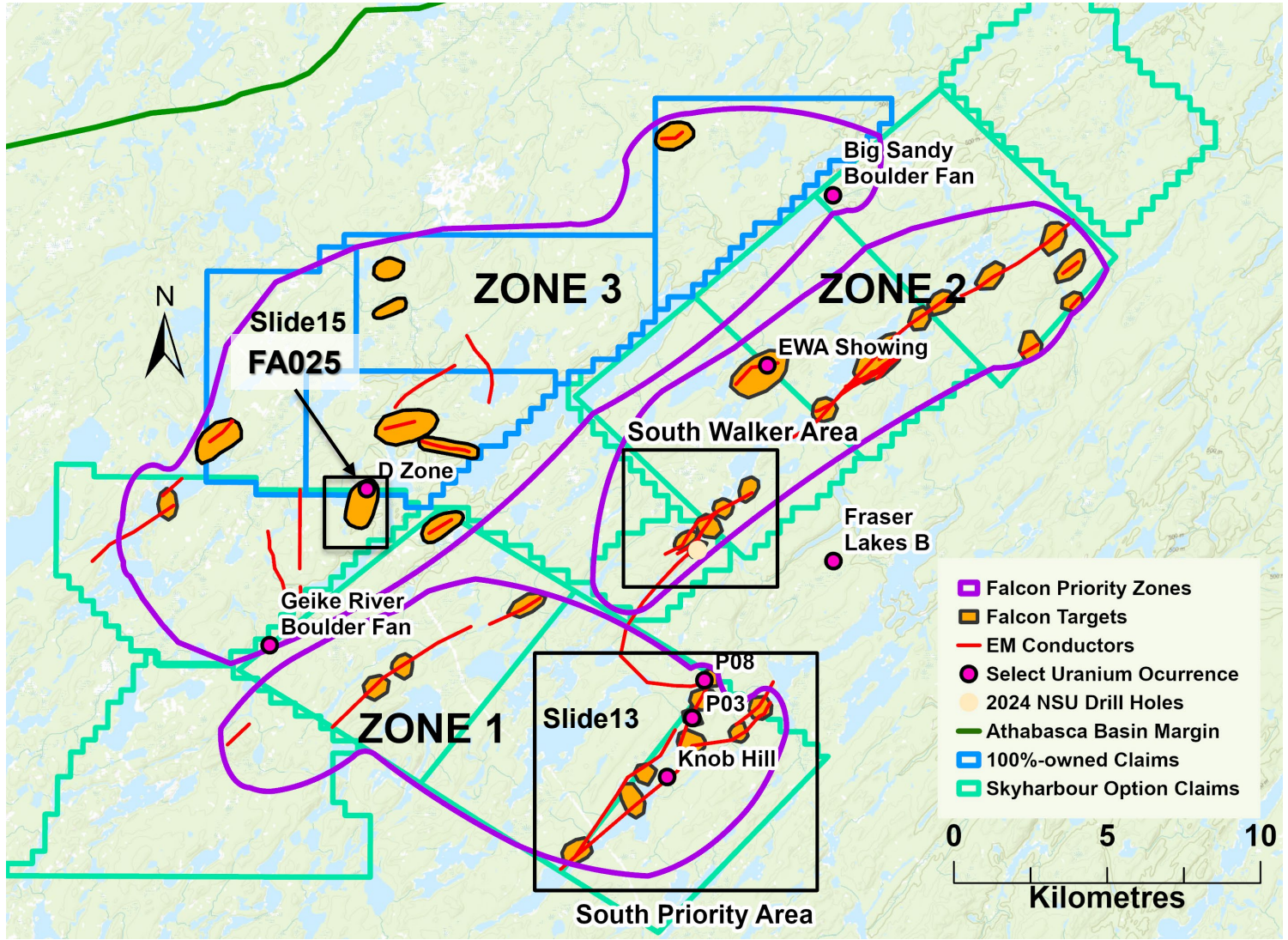
1) *NAR=no anomalous results, anomalous defined as >100ppm U_3O_8*

- Two near-surface uranium-bearing pegmatite-rich fault zones defined, 4.7 m interval from 42-47 m with 316 ppm U_3O_8 and one sample with 572 ppm U_3O_8
- 102.3-105.6m; brittle graphitic fault zone with strong bleaching and clay alteration, strong hematite and chlorite alteration along fractures and patchy silica alteration with uranium values up to 50 ppm U_3O_8



FALCON: TARGET SELECTION AND PRIORITIZATION

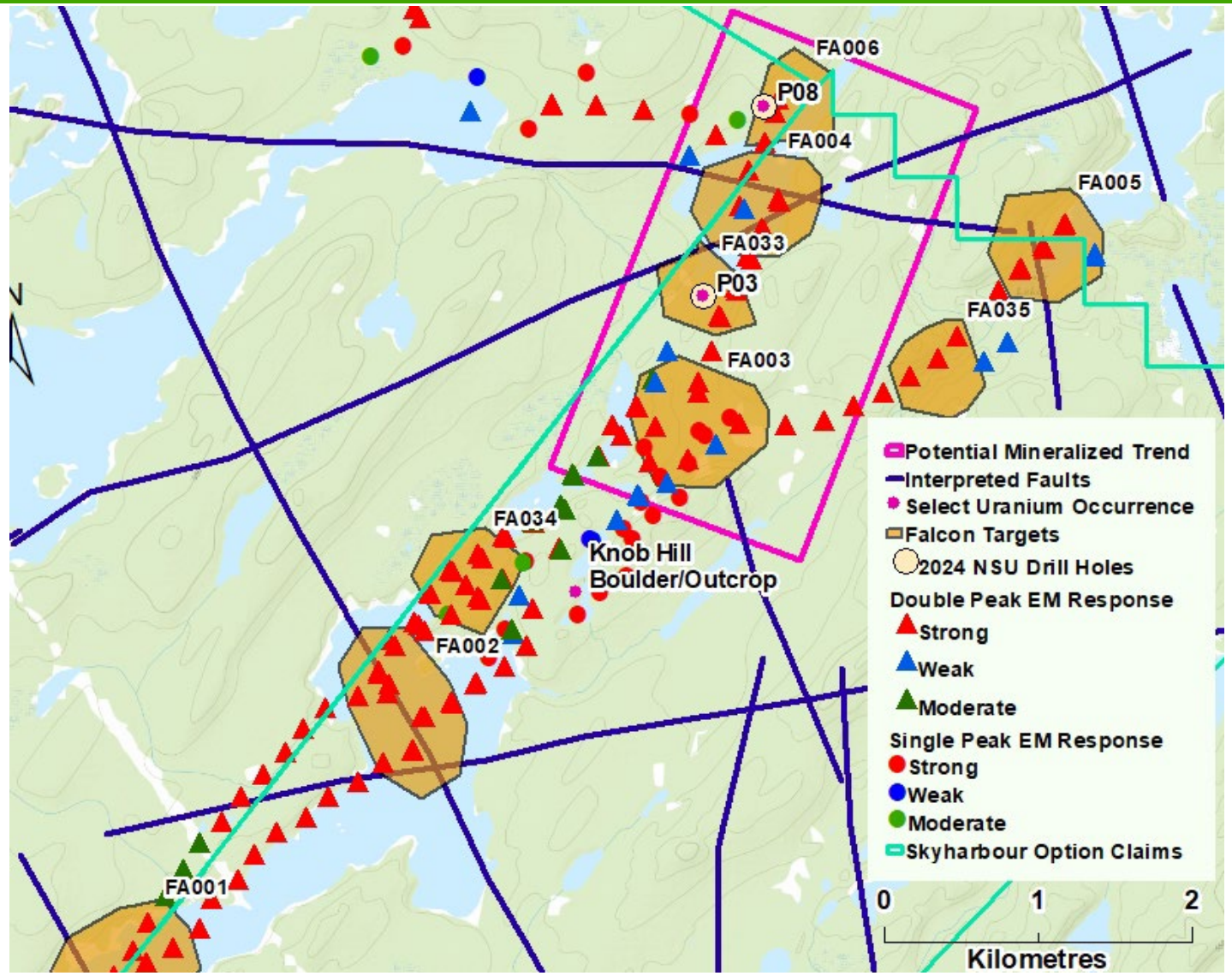
- Falcon claim package divided into three target zones, 1, 2 and 3
- Targets generated and prioritized for future drill programs by integrating multiple geophysical and geologic datasets
- Key target prioritization criteria include:
  - Character of EM conductor
  - Structural interpretation
  - Proximity to known uranium mineralization
- 36 targets identified to date including 11 priority targets in 5 areas
- Current top priorities are the South Priority Area, the South Walker Area and target FA025
- See May 27, 2025 news release



EM conductors and geologic features from Saskatchewan database and North Shore interpretation, target zones selected and prioritized by Condor North Consulting ULC, North Shore and TerraLogic Exploration Inc.

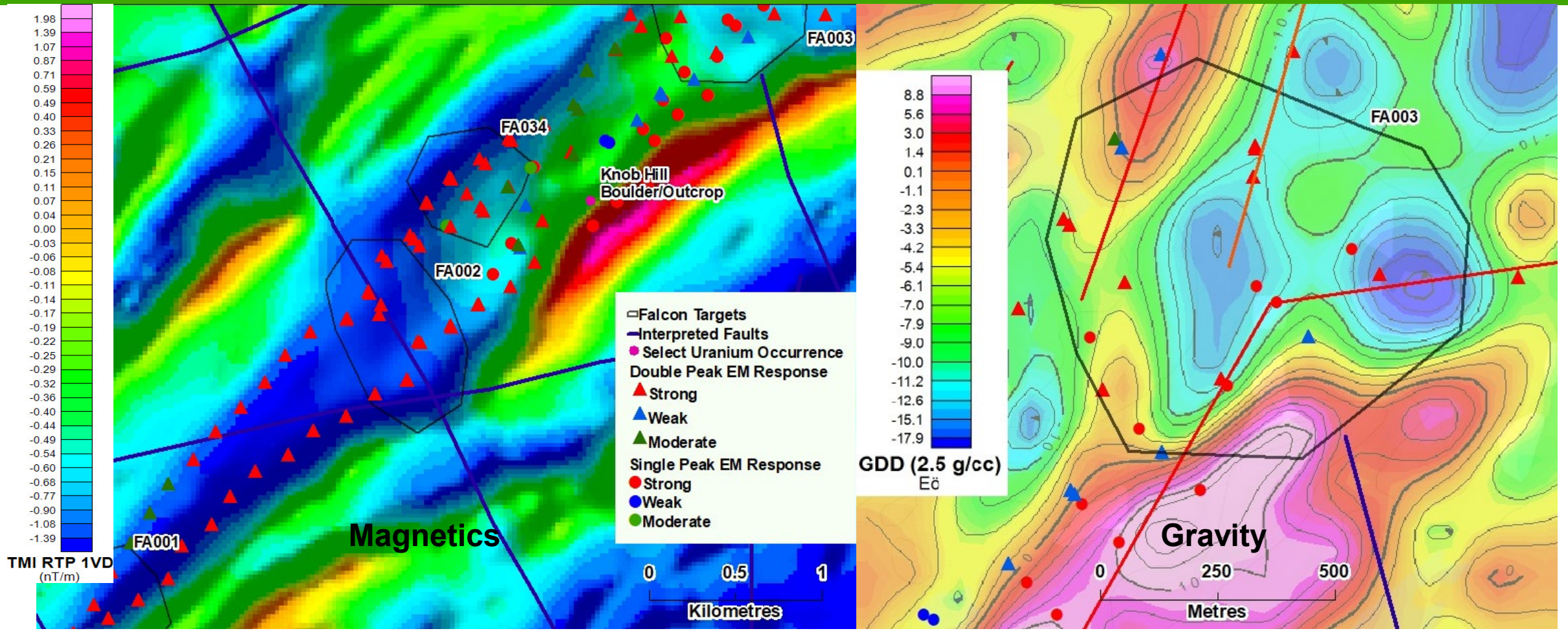
FALCON: SOUTH PRIORITY AREA

- Uranium discovered in 2024 at P03 and P08 (targets FA033 and FA006) (3 intervals with >300 ppm U_3O_8)
- A 3 km EM conductor trend that includes the new uranium discoveries at P03 and P08 a priority for future drilling, including **FA003** where the EM conductor system and an associated magnetic low are disrupted and there is a gravity low and elevated uranium in the airborne radiometrics
- At **FA004,** conductor is offset near a fault intersection
- At **FA002**, strong, parallel EM conductors associated with a linear magnetic low are intersected by an interpreted fault



EM and structural interpretation by Condor North Consulting LLC; single- and double-peak responses picked from airborne survey profile lines.

FALCON: FA002 AND FA003

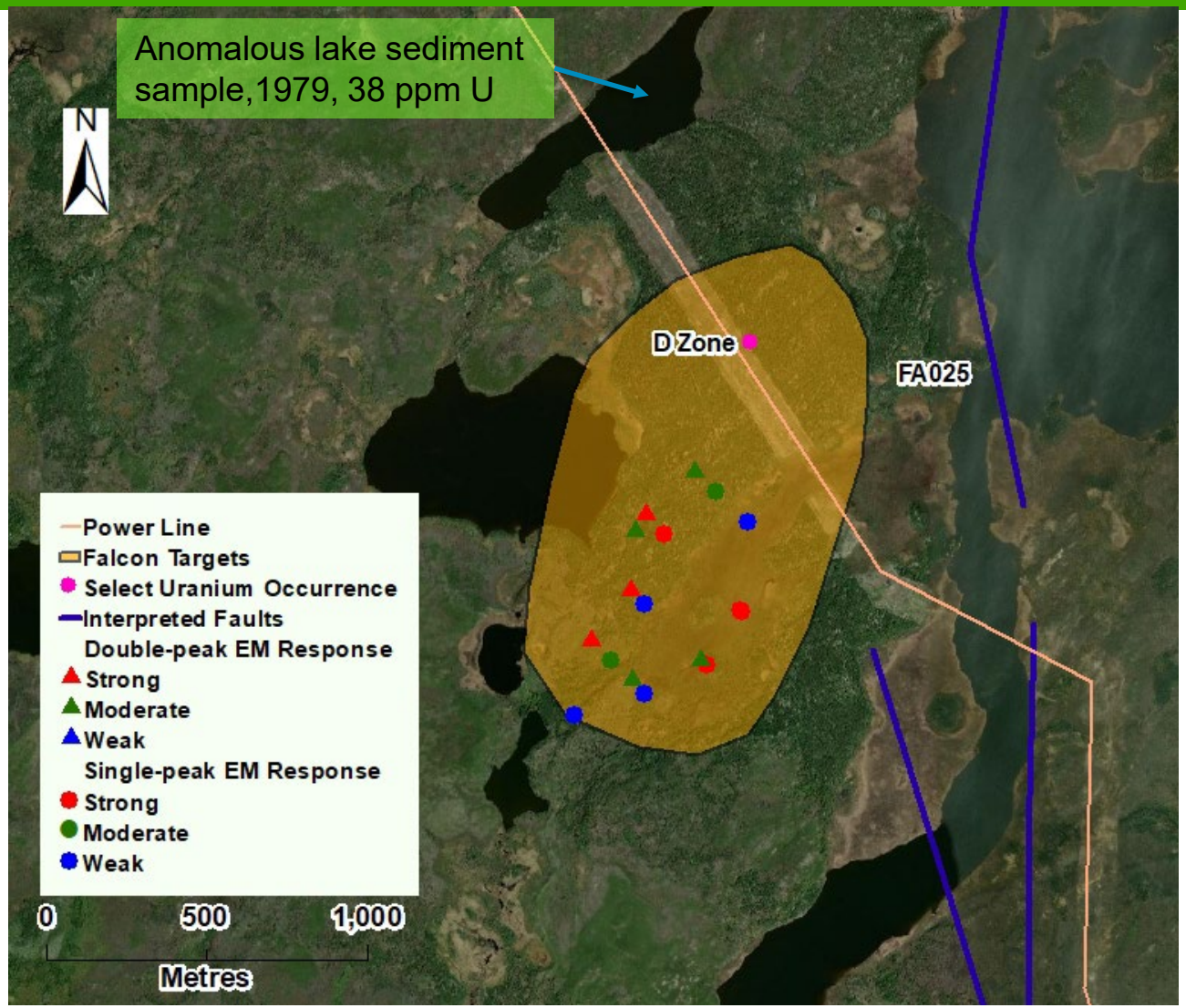


FA002 **FA003**

EM, magnetics and gravity processing and structural interpretation by Condor North Consulting LLC; single- and double-peak responses picked from airborne survey profile lines.

FALCON: FA025

- D Zone showing discovered in 1978, mineralized vein with 1.26% U and 0.8% Mo
- 1980: 3 holes totaling 350 m drilled by AGIP Canada, two one metre interals, 54 and 36 ppm U along with hematite, chlorite and kaolinite alteration
- 3 shallow drill holes were not sufficient to properly evaluate target

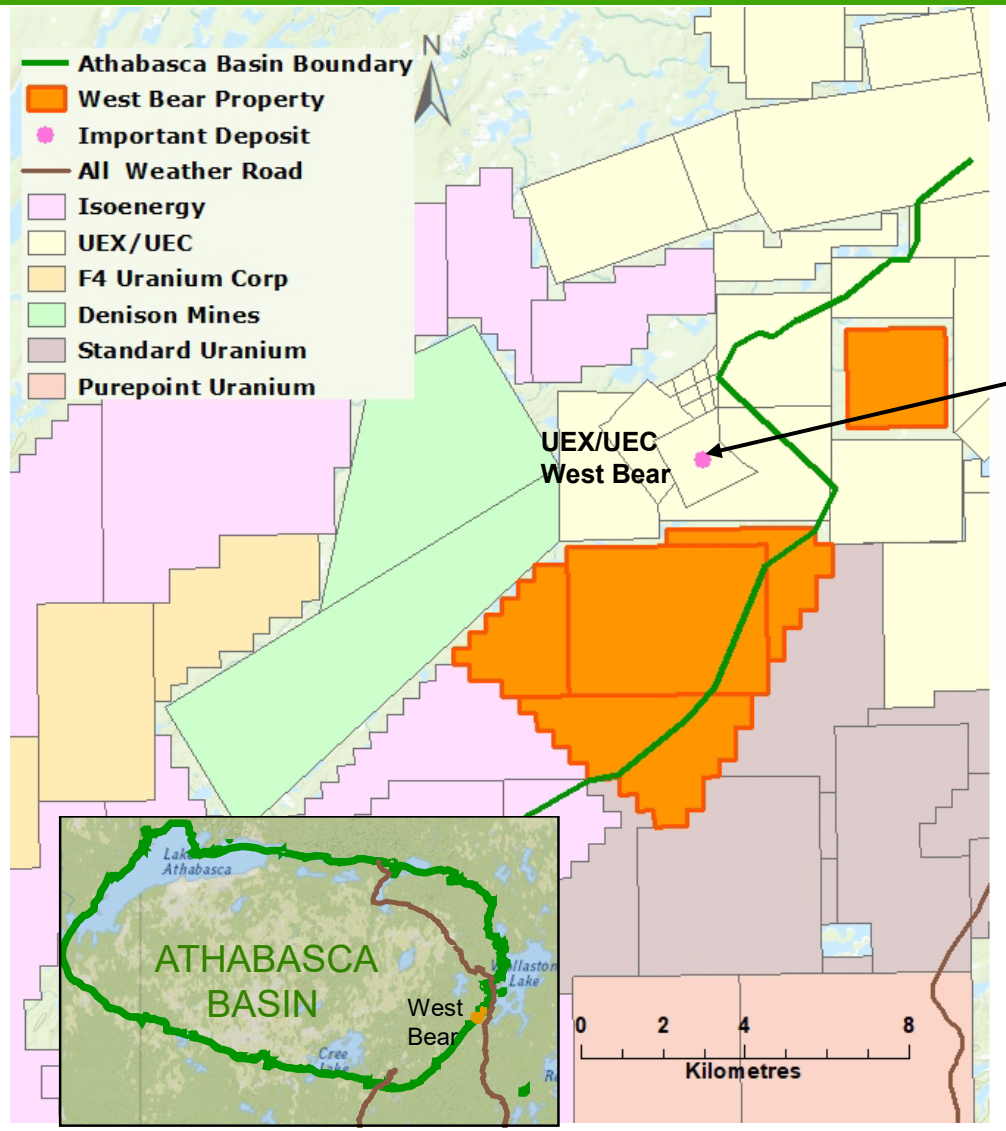


EM and structural interpretation by Condor North Consulting LLC; single- and double-peak responses picked from airborne survey profile lines. Powerline constructed in the 1990s.

WEST BEAR PROPERTY: OVERVIEW

5 claims, 4,511 hectares

- At eastern edge of basin near a uranium mineral reserve and Co-Ni mineral resource held by Uranium Energy Corp. (UEC)
- In area with ongoing exploration by Denison Mines and others
- Option to earn up to a 100% interest



UEX/UEC Deposits

Co-Ni resource*

- 0.295 M tonnes
- 3.8 M lb. Co @ 0.58%
- 3.2 M lb. Ni @ 0.49%

U probable reserve**

- 72,374 M tonnes @ 0.94%
- 1.4 M lb. U_3O_8

* *From 2022 UEX technical report*

** *From 2010 UEX technical report*

Claim information at March 25, 2025. Technical information on the West Bear property is provided in the 2023 technical report entitled "Technical Report for the West Bear Property, Saskatchewan, Canada", filed under the profile of North Shore Uranium at: www.sedarplus.ca

This slide contains information about properties adjacent to the West Bear property which North Shore does not have the right to explore. Investors are cautioned that mineralization on adjacent properties is not necessarily indicative of mineralization on the West Bear property.

WEST BEAR: PREVIOUS WORK

Drilling history on 5 claims (16 holes)

1968: Gulf (1)

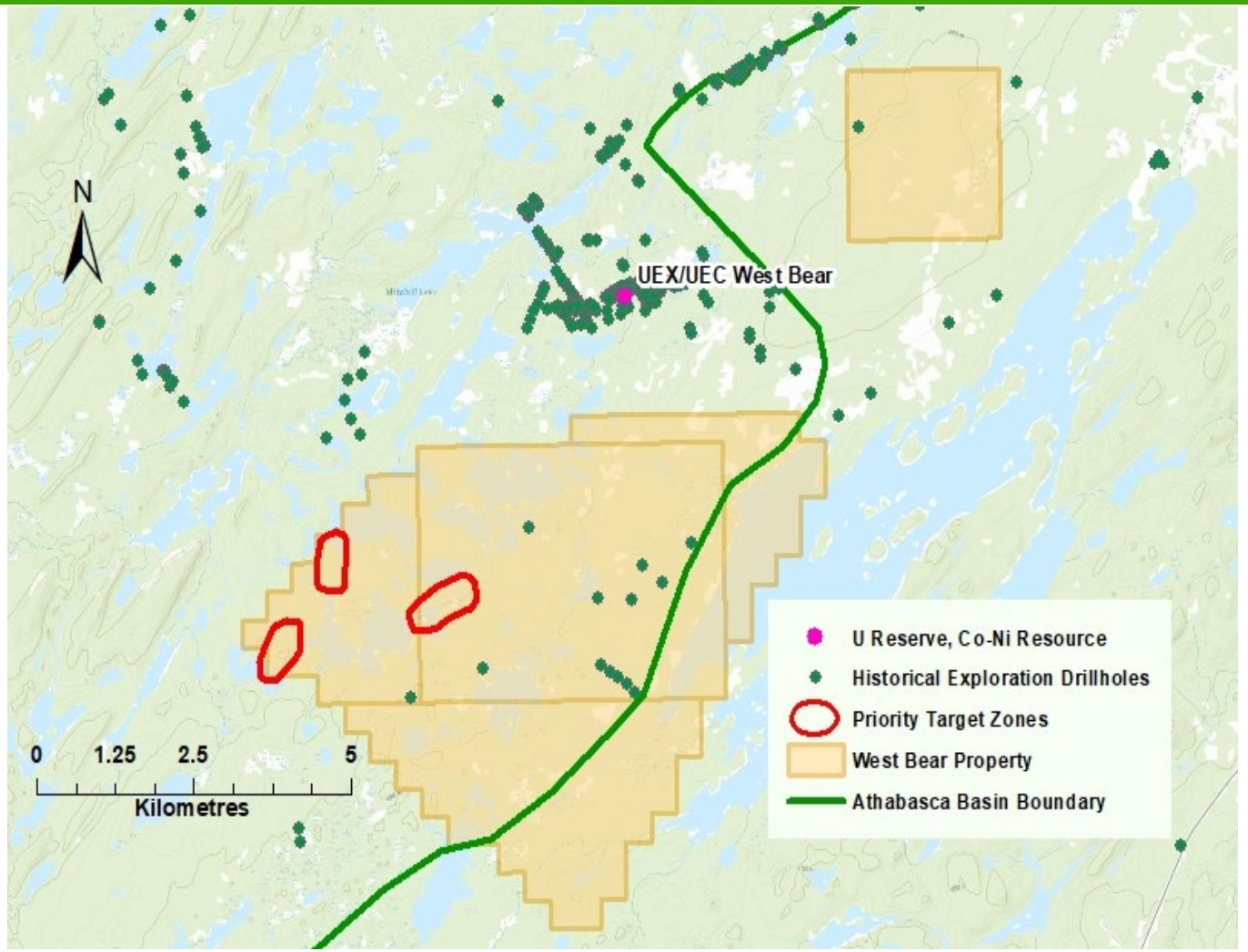
1977: Conwest (4)

1978: Conwest (5)

Denison: 2007 (2), 2015 (4)

North Shore's top 3 targets are along the western edge of the claim block within the Basin

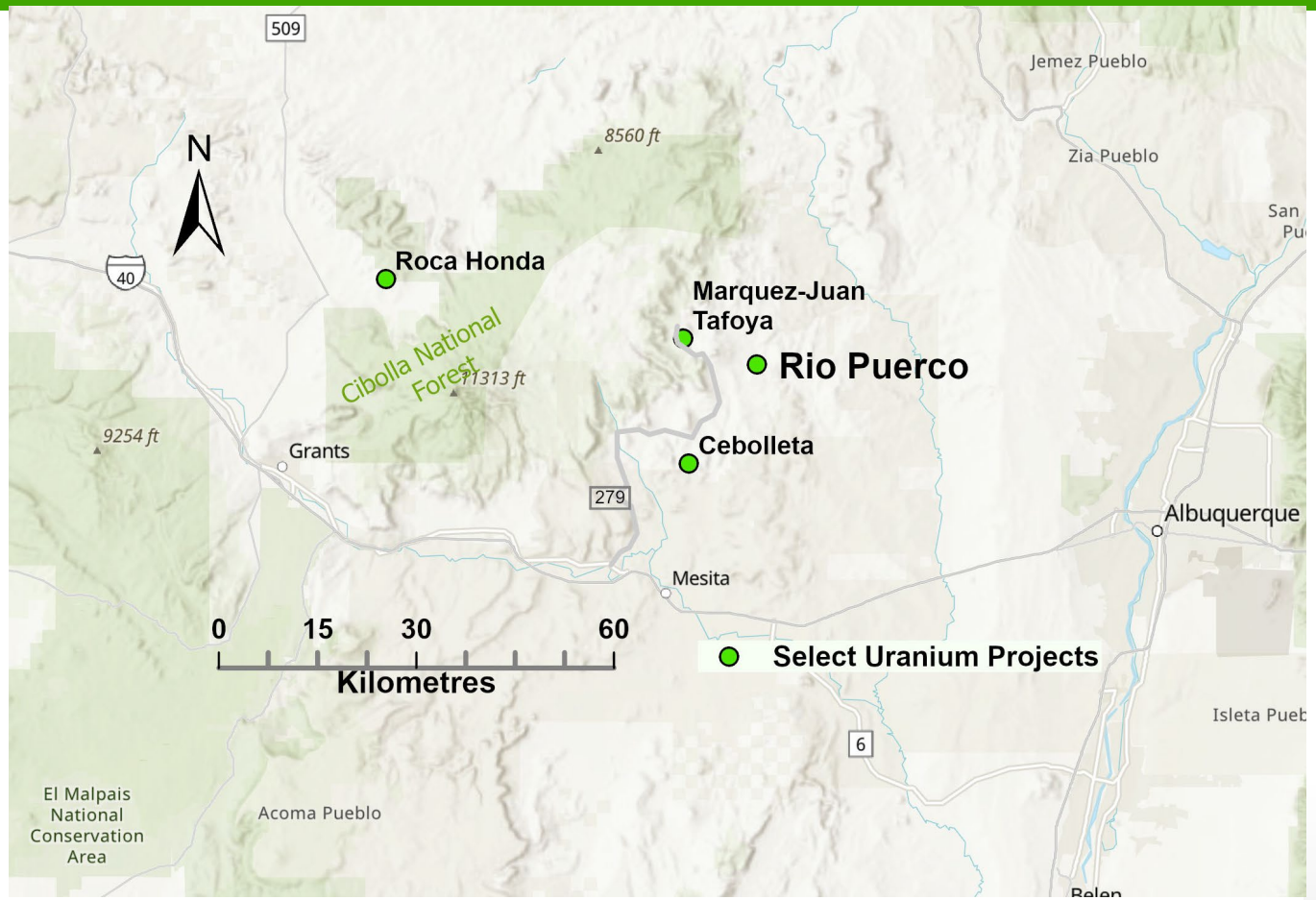
West Bear boulder sampling, 2022



Drill holes and Basin margin from Saskatchewan govt. database, UEC deposit location from UEX technical report

RIO PUERCO PROJECT, NEW MEXICO: OVERVIEW

- Binding term sheet executed with Resurrection Mining LLC to complete a transaction to earn up to an 87.5% interest in the Rio Puerco Project over a 5 year term (the “Transaction”). See news release dated June 24, 2025
- 60 km northwest of Albuquerque, New Mexico in the Grants Uranium District where production from mines that operated between 1950 and 2002 contributed to make it the leading uranium producing district in the United States with an estimated 340 M lbs. of U_3O_8 produced
- Strong US government support for nuclear power and uranium mining projects and a stated objective to reduce reliance on foreign nuclear fuel



Roca Honda (Energy Fuels), Marquez-Juan Tafoya (Anfield Energy) and Cebolleta (Premier American Uranium) are advanced exploration/development uranium projects.

RIO PUERCO PROJECT, NEW MEXICO: OVERVIEW (CONT.)

- Historical resource estimate of 11.4 million lbs. of U_3O_8 reported in 2009 and 2011 by two Australian companies (see limitations of historical resource estimates on slide 20)
- Substantial historical dataset to optimize future exploration programs
- Preliminary review of historical data suggests potential for In-Situ Recovery (“ISR”)
- Staged earn-in structure allows the Company to optimize exploration programs
- Completion of the Transaction would provide North Shore with uranium exposure in two North American uranium-producing jurisdictions, the Grants Uranium District, New Mexico and Saskatchewan’s Athabasca Basin


Scenery near Rio Puerco

HISTORICAL RESOURCE ESTIMATE

Limitations of Historical Resource Estimates

The historical resource at Rio Puerco outlined in this presentation has not been verified and should not be relied upon. It is a historical estimate and not current and does not comply with Canadian NI 43-101 guidelines for the reporting of Mineral Resources. A qualified person has not verified the historical resource on behalf of the Company and North Shore has completed no work programs at Rio Puerco. Though not current, the Company views the historical resource estimates as reliable and sufficient to justify the initiation of work programs aimed at validating and potentially expanding upon the estimates. There is no guarantee that the work programs envisioned by North Shore will ultimately result in the definition of NI 43-101 compliant resources. The data used for the resource estimate consisted of historical maps and data from 764 drill holes drilled by Kerr-McGee including downhole gamma-ray data converted to percent equivalent U_3O_8 (e U_3O_8), geological logs and drillhole survey data.

RIO PUERCO PROJECT: HISTORY

- Uranium discovered in 1968
- Kerr-McGee optioned the claims and drilled over 1,000 exploration holes
- Kerr-McGee began development of a room and pillar underground uranium mine in the 1970s
  - The mine was never put into production and activity ceased after a short trial mining phase due to low uranium prices
- There has been no significant field work at the Project since the 1970s

260 m vertical mine shaft developed by Kerr-McGee in the 1970s

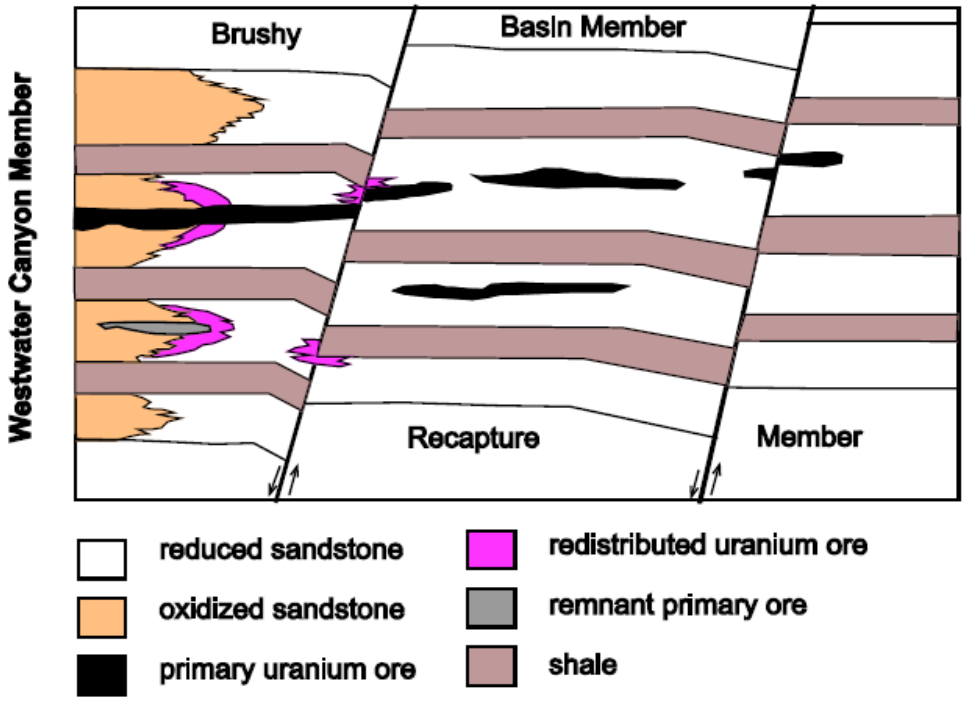
RIO PUERCO PROJECT: HISTORICAL **RESOURCE**

Historical Resource Estimate

- In 2009, Monaro Mining NL ("Monaro") completed an independent geological review and resource estimate for Rio Puerco using exploration data generated by Kerr-McGee in the 1960s and 1970s. They reported a JORC 2004-compliant inferred resource of **6.0 million tonnes at an average grade of 0.09% eU_3O_8 using a cutoff grade of 0.03% eU_3O_8 for 11.4 million lbs. of contained U_3O_8**[1].
- In 2011, Australian-American Mining Corporation Ltd. commissioned a technical report on Rio Puerco. The report validated the 2009 work and inferred resource estimate by Monaro of 11.4 million lbs. of U_3O_8 using a cutoff grade of 0.03% eU_3O_8[2].

1 (Monaro News Release)(link)

2 (Aus-American Technical Report)(link)



Generalized stratigraphic section from the Grants Uranium District where most of the uranium mineralization, include at Rio Puerco, occurs in the Westwater Canyon Member of the Jurassic Morrison Formation. From *McLemore, 2010, The Grants Uranium District, New Mexico: Update on source, deposition and exploration: The Mountain Geologist, v. 48, no. 1*

RIO PUERCO PROJECT: TRANSACTION SUMMARY

Highlights of the Rio Puerco Term Sheet and Transaction summary

- On completion of the Transaction, North Shore will be granted an option to earn up to an 87.5% interest in Rio Puerco from Resurrection Mining LLC over a five-year period
- **Milestone 1:** $125,000 cash payment and issuance of 9.99% of the common shares of the Company post-closing a minimum $750,000 financing on or before completing the Transaction
- **Milestone 2, to earn a 40% interest in the Project:** by 18 months after completion of the Transaction, a $250,000 payment in cash or shares and $750,000 in exploration expenditures
- **Milestone 3, to earn an aggregate 65% interest in the Project:** by 36 months after completion of the Transaction, a $375,000 payment in cash or shares and $1,000,000 in additional exploration expenditures
- **Milestone 4, to earn an aggregate 87.5% interest in the Project:** by 60 months after completion of the Transaction, a $500,000 payment in cash or shares and $1,500,000 in additional exploration expenditures.
- North Shore will provide Resurrection a 12.5% free-carried interest in the Project through completion of an NI-43-101-compliant Preliminary Economic Assessment at which time Resurrection can elect to form a participating joint venture or convert their interest into a 1.0% net smelter returns royalty
- For the 78 month period after completion of the Transaction, North Shore will pay Resurrection a $100,000 bonus for each million lbs. of U_3O_8 estimated in current resources defined by the Company above 5 million and up to 20 million lbs. in accordance with NI-43-101 standards if and when resources are defined
- Outside date for closing the Transaction is August 31, 2025

RIO PUERCO PROJECT: NORTH SHORE GOALS

- After completion of the Transaction, work towards defining a NI 43-101-compliant uranium resource by:
  - Verifying historical data
  - Preparing geological models emphasizing the previously defined uranium mineralization
  - Formulating systematic drill programs aimed at verifying and expanding upon the historical resource
  - Acquiring the permits necessary to complete work programs
- Information from the drill programs will be used to further evaluate the amenability of ISR mining

THANK YOU

For more information please contact:

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