Project Itza

Thelon Basin, Nunavut

An opportunity to apply a proven exploration framework to a basin ripe for discovery

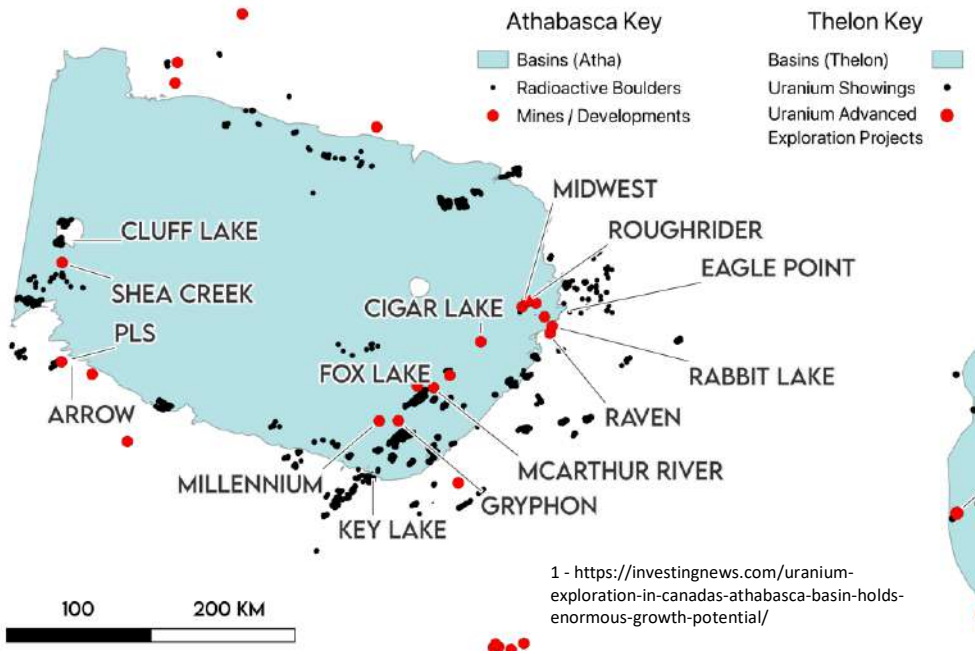
Tale of two Basins

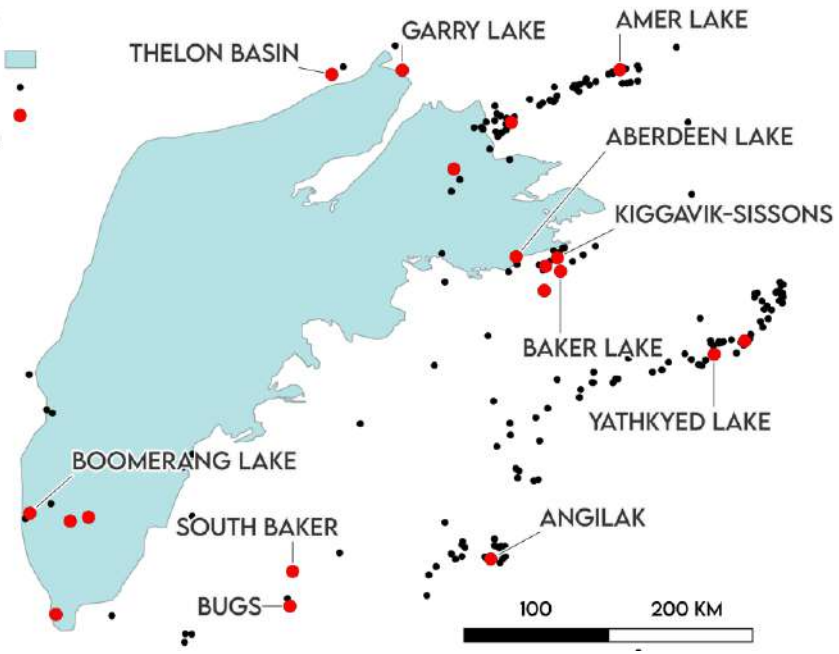
The Athabasca:

- Athabasca's Uranium potential was identified in the early 1950s
- 1968 saw the discovery of uranium at Rabbit Lake in the Athabasca Basin
- 1970-2020 more than **500mlbs of uranium** has been produced from this prolific region[1]
- **40 uranium deposits** have been discovered, defining **2.6 billion pounds of uranium**

The Thelon:

- Urangesellschaft Canada Limited discovered the first uranium showing in the Baker Lake area of the Thelon Basin in 1974
- 1970s-1980s saw a flurry of exploration activity
- A secondary rush in the 2000s to 2011 saw regional work hunting for unconformity-type uranium
- Around **160 million pounds of Uranium** has been defined to date





1 - https://investingnews.com/uranium-exploration-in-canadas-athabasca-basin-holds-enormous-growth-potential/

A Compelling Opportunity

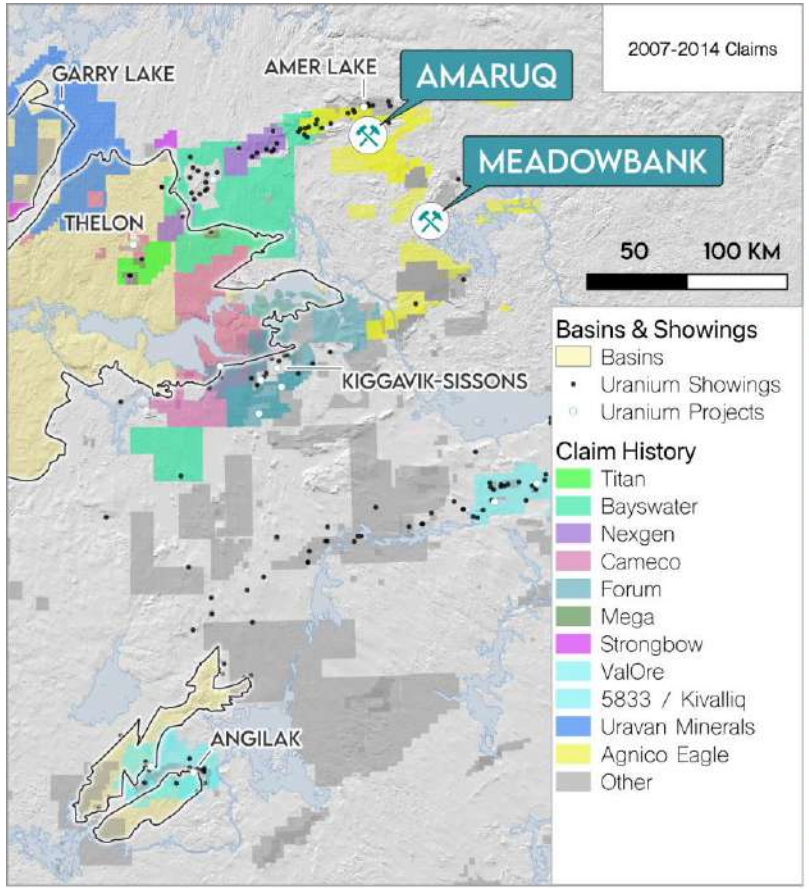
1. Same size as Athabasca
2. Extensive uranium showings
3. Similar Basin ages
4. Athabasca discoveries are still being made

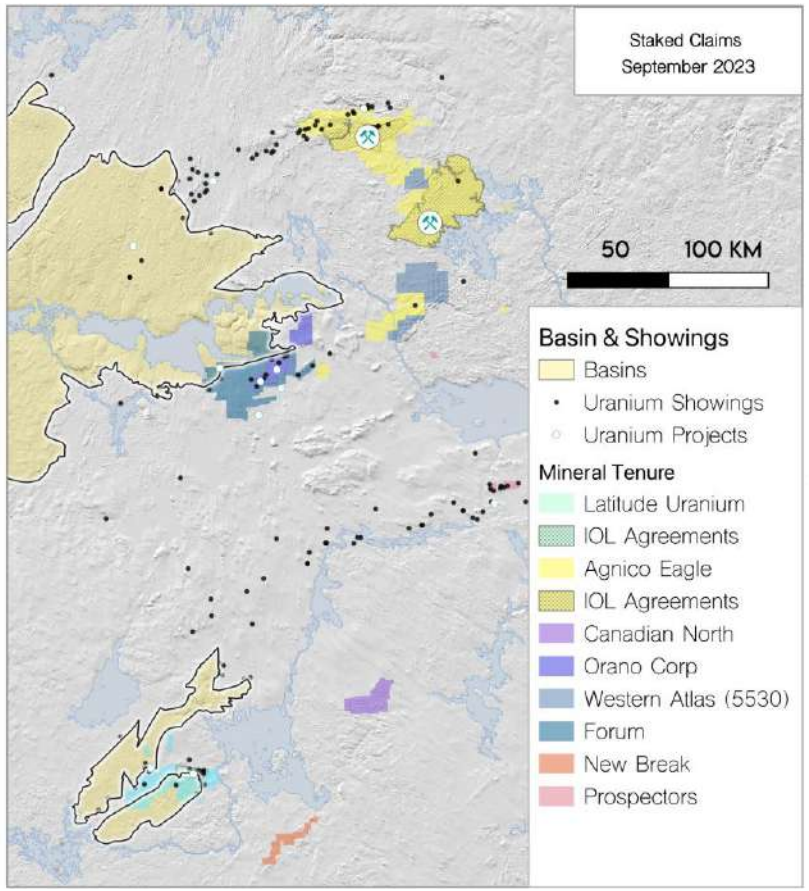
Thelon discoveries are yet to be made

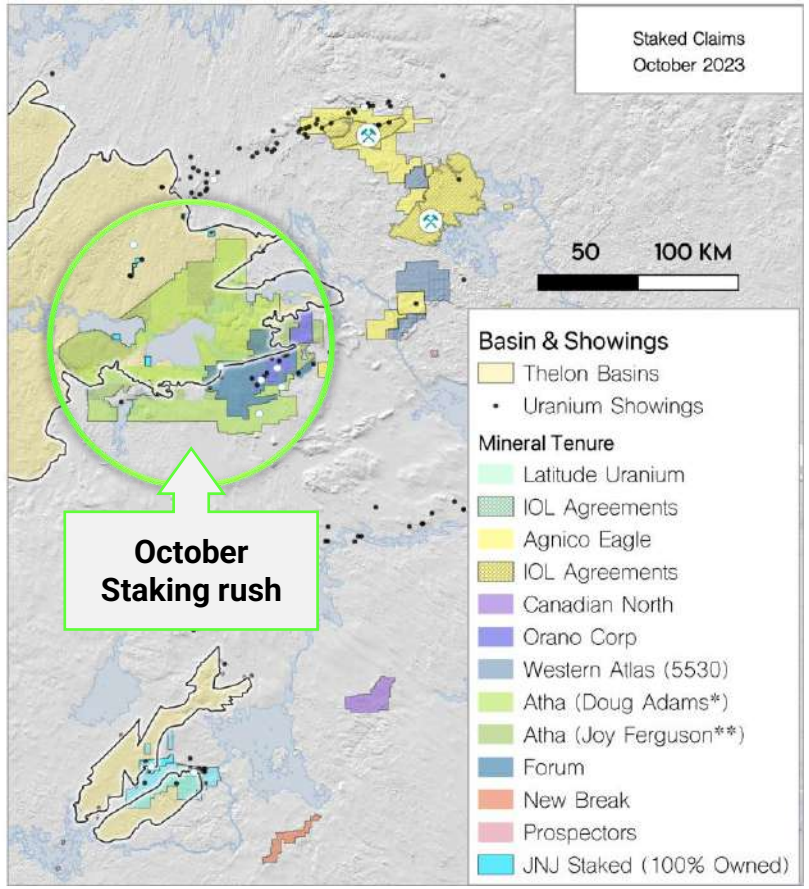
Two gold mines have been put into production, a new tenure system implemented, and a refreshed perception of Uranium

Staking Rushes - Resurgence in the Thelon?

Exploration Started in the 1970s → **2007** *(1.5m Ha staked)* → **2015** *(1.6m Ha staked)* → **Sept 2023** *(0.3m Ha staked for U)* → **October saw the start of a staking rush** / **VP Ex for Atha Energy staked 300k Ha** → **Today** *(0.8m Ha staked for U)* → Thelon Basin is reemerging as a significant district for Uranium Exploration







What has Changed?

It's been over a decade since the Thelon area saw basin-wide exploration, changes include:

1) Geological Understanding in the Basin

The stratigraphy of the Western Churchill Structural Province and Amer Belt was revised as part of a multi-disciplinary GSC GEM (Geo-mapping for Energy and Minerals) project led by Charlie Jefferson starting in 2012

No systematic, basin-wide exploration has occurred with this new geological insight

2) Exploration Techniques

Far more advanced exploration techniques, such as passive seismic and ultrasensitive mobile metal ion geochemistry, are available to see through sediments. Multiplatform geophysics, remote sensing and big data analytics are prime for district exploration opportunities

3) Demand for Clean Energy

Nuclear is the cleanest and greenest source of baseload power with the lowest CO2 emission per energy unit generated

4) Uranium Price

The 10-year bear market has begun to shift and the price of uranium is now at a decadal high

2020
$ 28.90/lb

Now
$ 74.38/lb

3x so far, might we see a repeat of the early 2000's

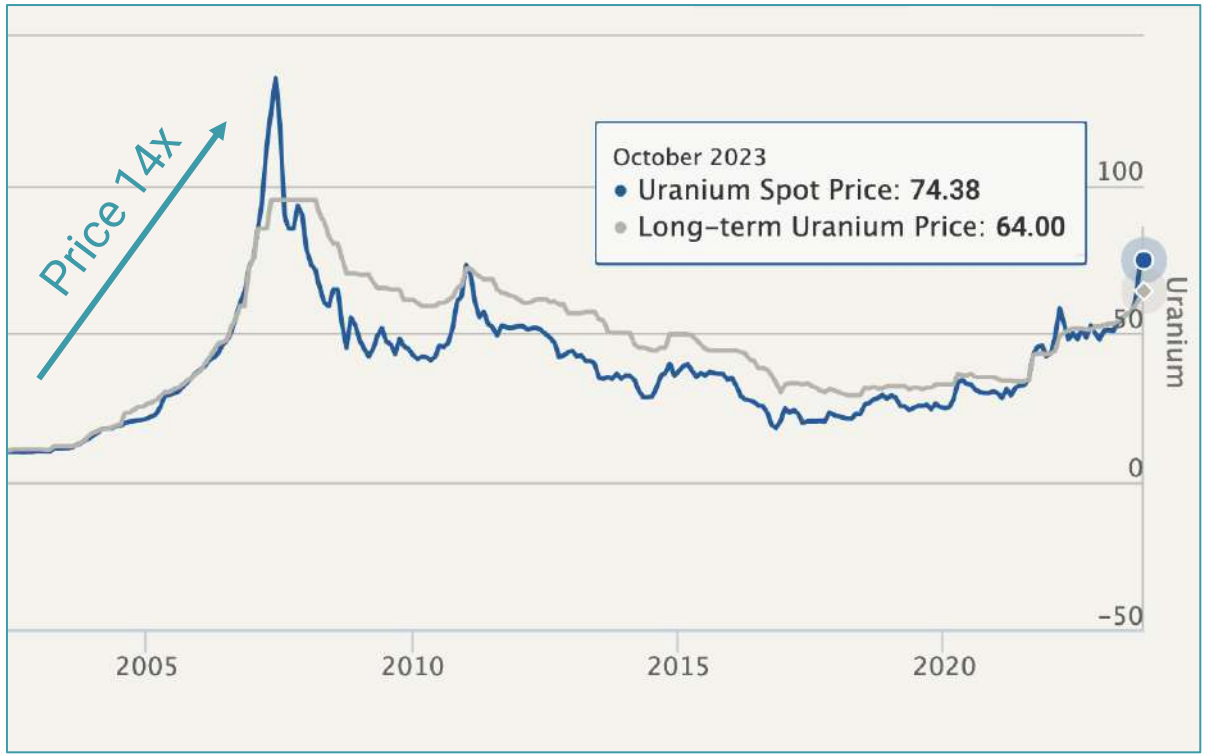
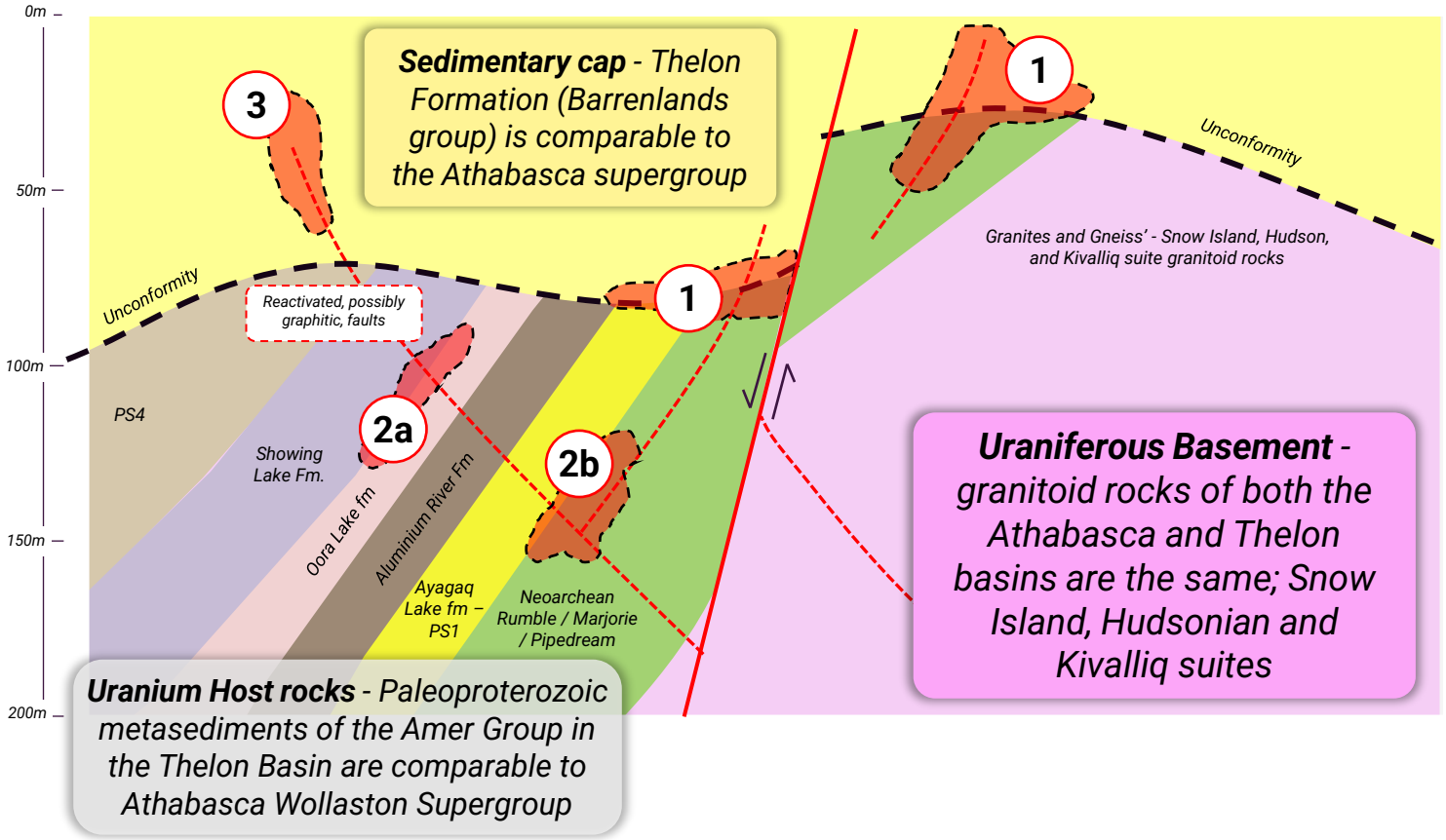


Image source: https://www.cameco.com/invest/markets/uranium-price

Thelon U_3O_8 Model – Similar to Athabasca



1	Unconformity Vein and Breccia contact U_3O_8	2b	Neoarchean Basement Stratabound / vein & breccia U_3O_8
2a	Basement Hosted Stratabound between Showing Lake and Oora Lake Formation	3	Sandstone Hosted U_3O_8 - Perched Mineralisation

Comparable to Athabasca, there are multiple uranium deposit styles to explore for

1. Unconformity Vein & Breccia Type:
   - Cross-cutting basement rocks (Amer and Neoarchean Woodburn Lake Groups)
   - Associated with Illite, Chlorite Hematite alteration
   - Reactivated basement faults intersecting unconformity and overlying sediments

2. Syngenetic Mineralisation:
   - Contact between Showing Lake and Oora Lake Formations
   - Pore-filling Pitchblende or finely disseminated Uranite
   - Associated with chalcopyrite, magnetite and calcite in sandy layers of siltstone

3. Sandstone-hosted phosphatic–breccia and sandstone matrix
   - Non-Phosphatic – limonitic, vuggy and bearing secondary uranium minerals; torbernite & autunite

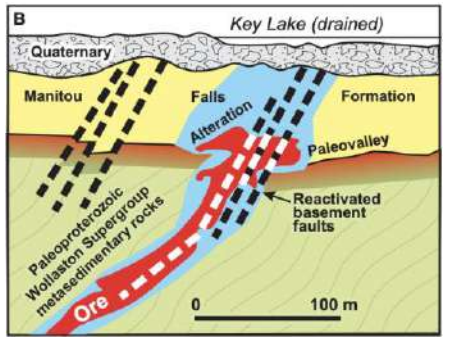
Athabasca Deposit Models

- The unconformity-associated deposits in the Athabasca Basin are typically 100-500m deep
- The Thelon Basin historical work was generally limited to shallow depths (<100m), yet the deposit models across both basins are somewhat similar

Applying exploration and deposit discovery techniques used in the Athabasca basin to the Thelon area has discovery high potential

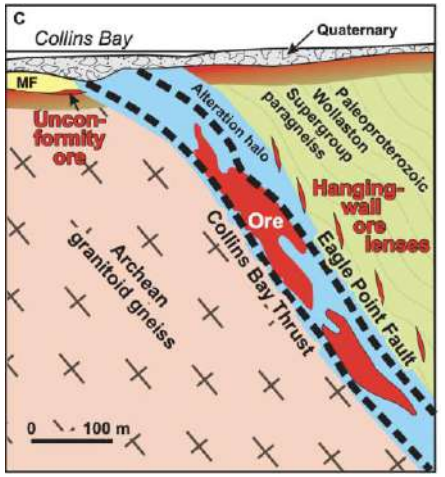
Key Lake – 100m Deep

- Unconformity ore - at contact
- Basement-hosted lenses – Wollaston metasediments



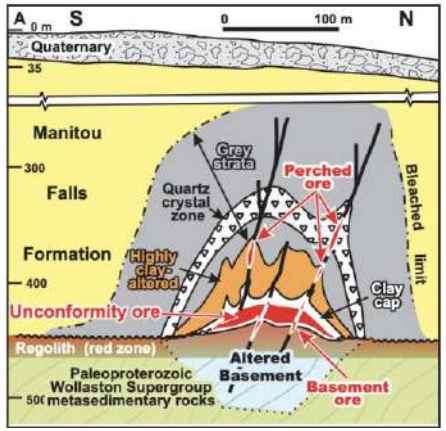
Eagle Point – 400m Deep

- Basement-hosted lenses – Wollaston metasediments



Cigar Lake – 450m Deep

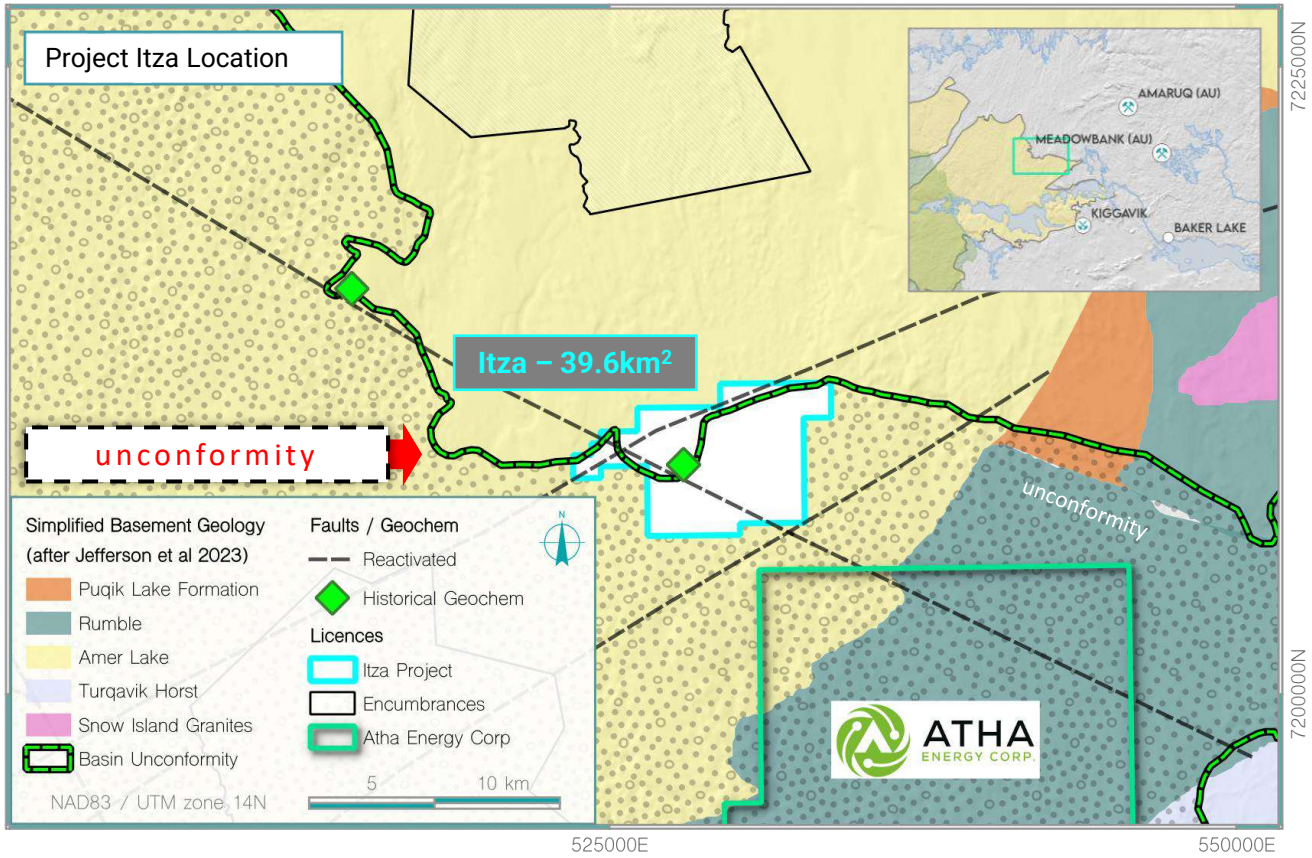
- Minor Perched Ore – Manitou Falls
- Dominantly Unconformity ore - at contact
- Minor basement hosted lenses – Wollaston metasediments



Jefferson, C.W., Thomas, D.J., Gandhi, S.S., Ramaekers, P., Delaney, G., Brisbin, D., Cutts, C., Quirt, D., Portella, P., and Olson, R.A., 2007, Unconformity associated uranium deposits of the Athabasca Basin, Saskatchewan and Alberta, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 273-305.5

Project Itza - Introduction

Project Itza is located in the Northeastern portion of the Thelon Basin - Itza was identified before the staking rush took place and is within the most prospective region of the Thelon Basin that contains the high-grade U3O8 samples



Project Itza – 3955ha / 39.6 km²

- A 1.27% U_3O_8 boulder sits within the project and planned drilling in 2007 was never completed
- **At least 3 radioactive boulder trains are located, and the source is yet to be tested**
- Sits at the mapped unconformity between the Thelon Formation and the underlying Amer Lake Metasediments
- Contains reactivated Faults identified in 2013[1] - not identified when the properties were last explored (2012)

The intersection of reactivated faults and unconformities is highly prospective for uranium deposits. e.g. Cigar Lake, key Lake

Unconformity Uranium deposits require reactivated faults (black dashed lines) intersecting the unconformity between the Paleoproperozoic (Yellow unit) or Neoarchean basement (Green unit) and the overlying Sediments.

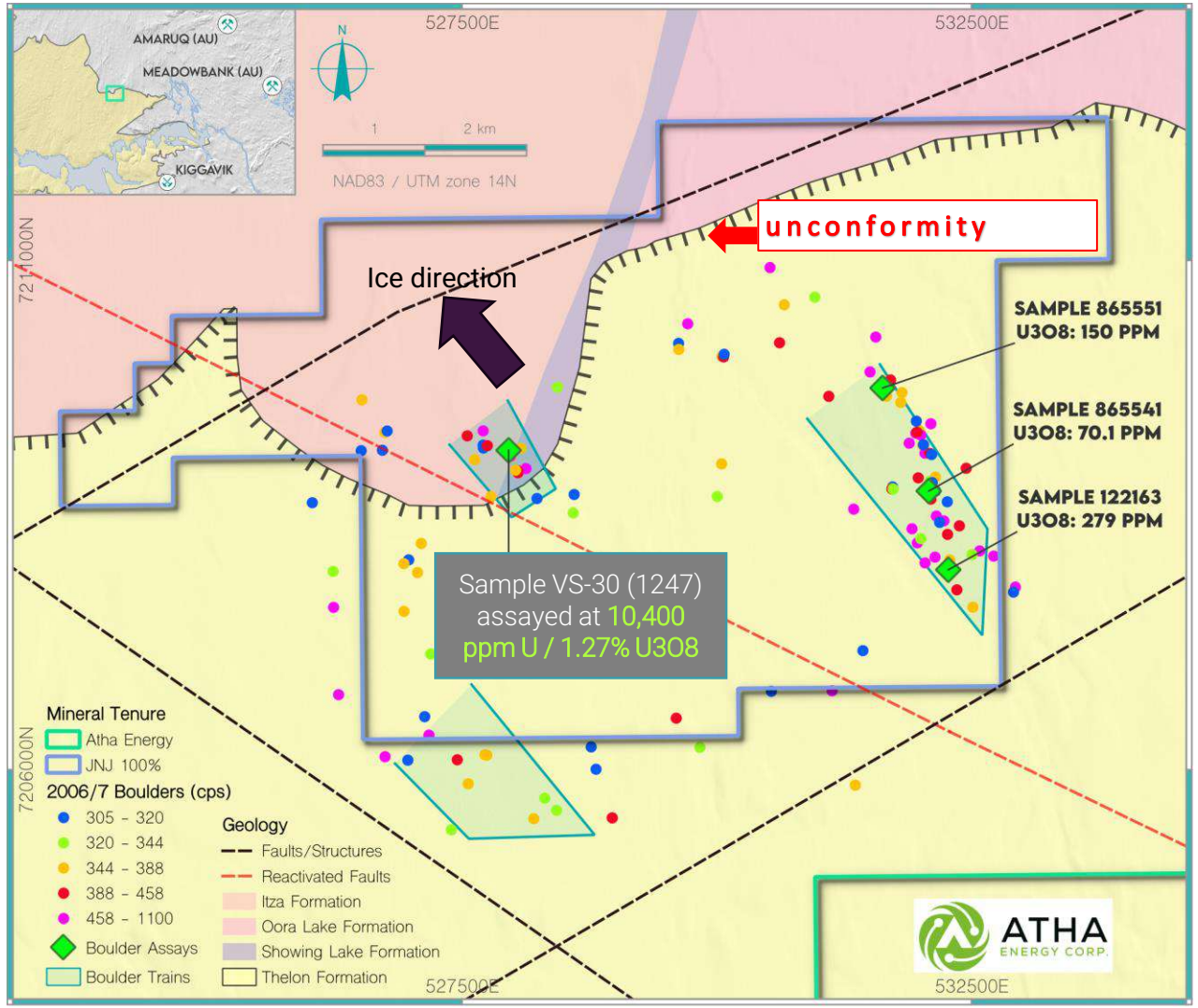
[1] *Geophysical And Geological Integration And Interpretation Of The Northeast Thelon Basin, Nunavut, 2013 Ph.D. Thesis – V. Tschirhart; McMaster*

Itza Project 3955ha / 39.6 km^2

Historical assessment reports show expenditures > $10m in the area, with at least $2m on the Itza Project

- Multiple radioactive boulders were measured, including a **10,400ppm U / 1.27% U_3O_8 * Boulder**
  - Forum Energy Metals' recent Tatiggaq discovery had boulder anomalies up to 900ppm U
- **15 linear kilometres** of mapped **unconformity**
- **3 mineralised boulder trains** located in or adjacent to the licence that require immediate follow-up
- **Multiple faults intersect the licence**, and when interpreted with boulder geochemistry make compelling exploration targets
- Previous explorers (Titan and Mega) focused only on Amer Lake geology – based on data acquired from previous operators, the potential for Neoarchean Rumble formation to underly part of the licence is high which presents a **high-quality unconformity target**

The project requires evaluation using concepts developed since exploration stopped in 2012



*Historical assessment reports contain original Assay Certificates showing 10400ppm U converting to 0.88% U3O8, but the correct conversion factor is U*1.179 = U_3O_8 so Sample VS 30 -1247 should be 1.27% U3O8

Historical Work - Itza

Geological Overview

- Western Churchill Structural Province of the Canadian Shield
- Paleoproterozoic Amer Basement Rocks (Itza, Oora Lake, Showing Lake formation)
  - Subject to folding faulting, deformation and low-grade metamorphism during the Hudsonian Orogeny
- Overlain by Thelon Sediments and unconformity mapped within the licence

Project History (Previously called the BRN project)

1976 – 1979 Westmin Resources Regional Exploration

- Airborne magnetic, radiometric & Prospecting
- Lake geochemical surveys

1980 – 10400ppm U boulder of Amer Fm discovered

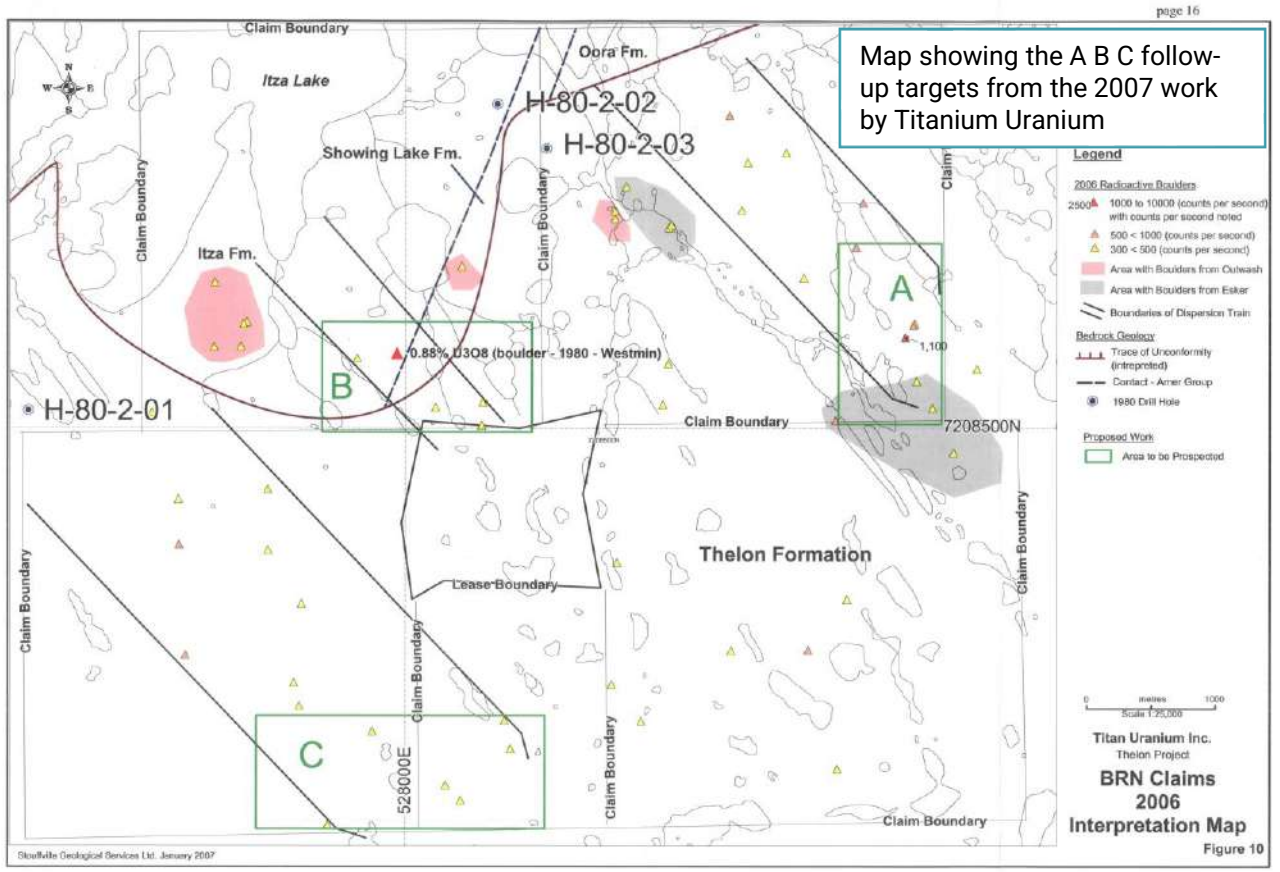
1981-1984 Westmin property scale Exploration

- Multiple Boulder trains
- 7.5km of VLF-EM, Magnetics, 1km of IP

2006 Titanium Uranium

- Reconnaissance prospecting, radon surveying and Drilling. >800 anomalous boulders
- Concluded: "*Prospecting in 2006 partially defined three boulder trains that should be followed up*"

2007 – Covered by Titan's Goldak Airborne Survey



Map showing the A B C follow-up targets from the 2007 work by Titanium Uranium

Historical Work - Itza

Westmin Resources 1980 (W, Stewart, P. Nicholls) *Itza 2 to 4 claims*

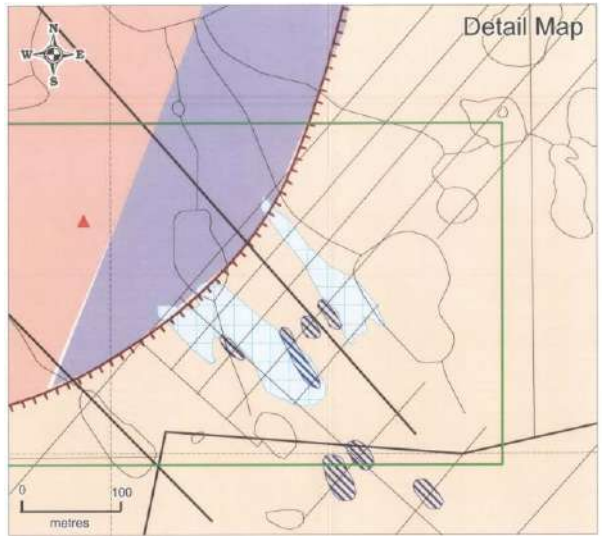
- Lake Bottom Sampling – 206 samples for metal and helium content
- Prospecting: 475 Mineralised boulders (95% registered >300cps)
  - 10400ppm U / 0.88% U3O8 pebble - Sample V.S 30 / site 1247 – found in an area with anomalous He (32.4 units) and U_{H2O} (0.36ppb)
- Scintillometer Survey – 201km completed
- Drilling H-80-2-01 to 03 (1981 - 81111 - Western Mines)

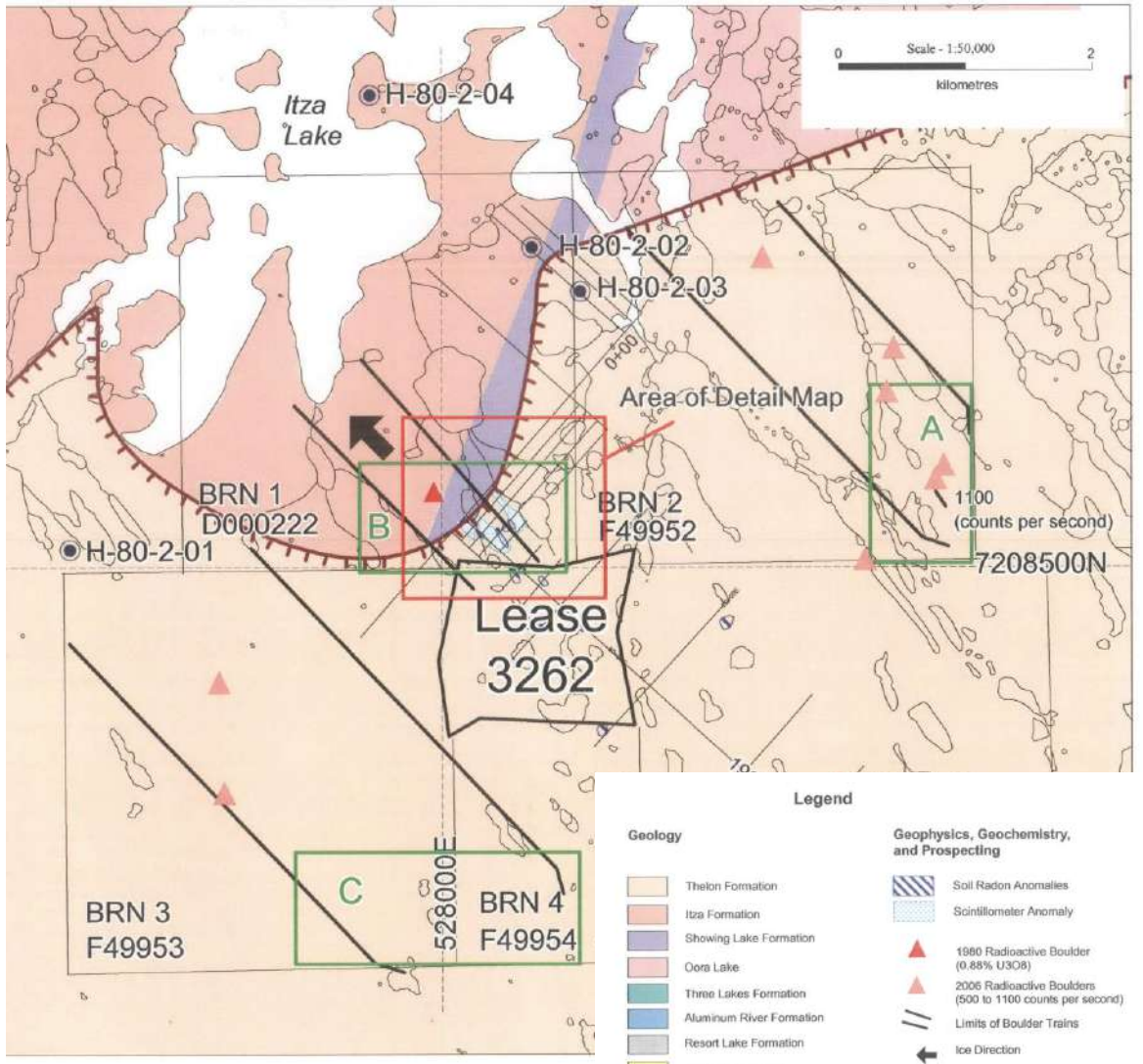
1982 (D.G Ross) – 6km grid was established to the south of the radioactive boulder and 24 radioactive boulders (>500cps) were founded

1984 – Soil radon, prospecting and scintillometer surveying. Results confirmed historical results, boulders were of Thelon Formation. A radon and Scint anomaly was defied at the head of the boulder train

Titanium Uranium 2006/7
BRN 1 to 5 Claims, Access by Heli from Camp or Baker Lake

- Results: 57 radioactive boulders with >300cps
- Recommendations: Further Prospecting in A B and C and Radon Gas Surveys





Source: Report on Prospecting Completed on the BRN Claims during 2006 – Titanium Uranium

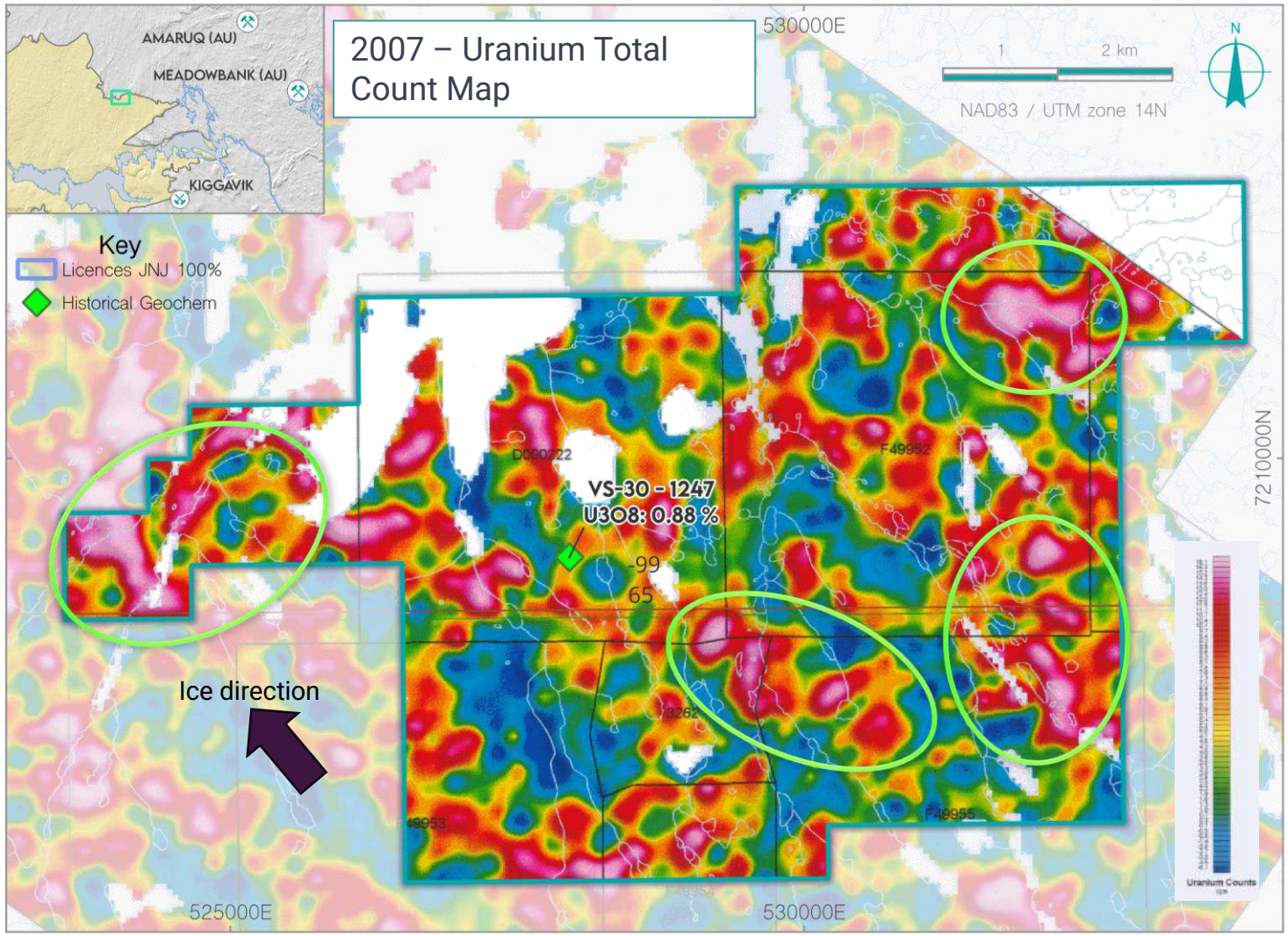
Geophysics - Itza

2007 Titan Uranium Geophysics

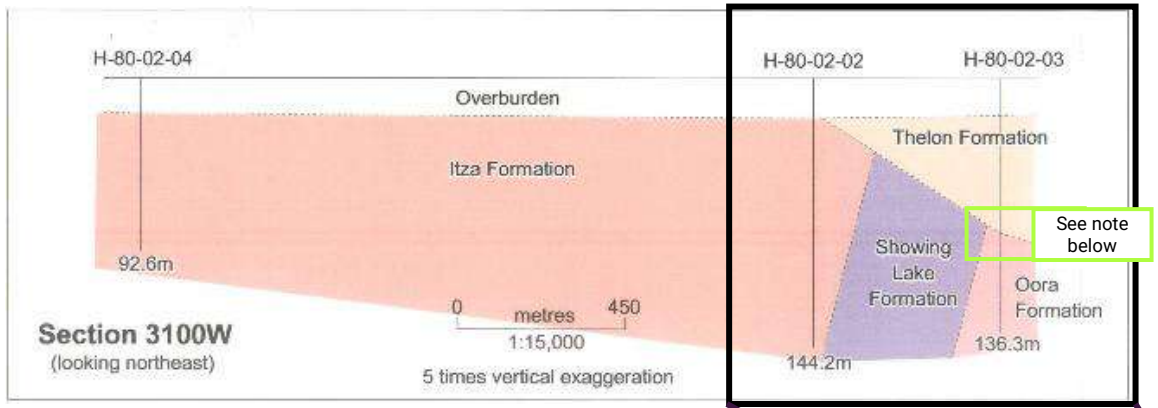
- A large regional geophysical program flown in 2007 by Titanium Uranium covered the Project and identified several prospective targets
- Radiometrics / $U_{total\ count\ cps}$ show several U anomalies up-ice
- Up-Ice anomalies correspond to potential heads of Boulder trains

The project has yet to be explored since the 2007 geophysical surveys or the 2013 revised geological framework by Jefferson et al.

Multiple Radiometric anomalies of interest



The Opportunity - Itza



Source: Assessment Report 1981 - 81111 - Western Mines Limited

Hole H-80-02-03 drilled by Westmines in 1980, the drill log indicates they intersected PS3 (Oora Lake) at a shallower depth than published literature

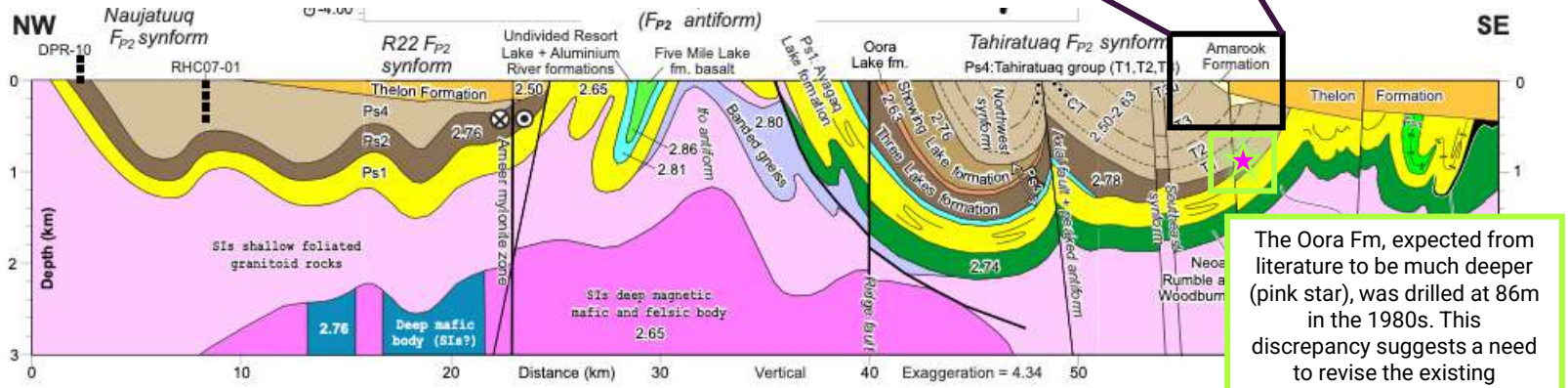
"H-80-2-03 *entered Aphebian basement at a depth of 86 metres after passing through 12 metres of indurated quartzose sandstone, apparently correlative with the aeolian unit in hole H-80-2-01."*

What does this mean?

The prospective Neoarchean Rumble Formation (dark green in lower section) might be closer to the surface than is currently recognised

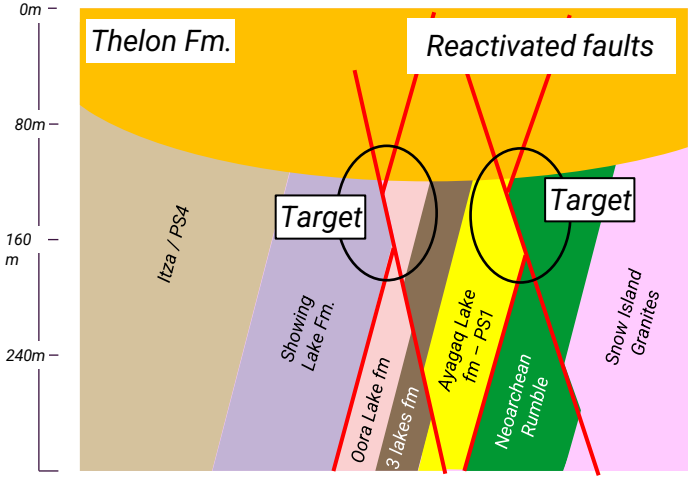
Therefore

Two unconformity deposit targets exist in the Itza licence



Source: Jefferson et al (2022) The Paleoproterozoic Amer supergroup, Amer Fold Belt, Nunavut: stratigraphy, structure, correlations, and uranium metallogeny dx.doi.org/10.1139/cjes-2022-0077

The Oora Fm, expected from literature to be much deeper (pink star), was drilled at 86m in the 1980s. This discrepancy suggests a need to revise the existing geological models for the area



Note: section is conceptual in nature, scale bar is based on unverified historical data

Key Takeaways

Itza

For more information please contact:

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The only drilling on the property was in 1980 and the aim then was to understand stratigraphy – Not hunting for a deposit

- No explorer has tested the Neoarchean rocks that are projected to underlie the project area - These rocks host the nearby Tatiggaq discovery and Kiggavik Uranium Deposit
- Staking Rush in October 2023 has already begun, and the Itza Project is one of the most prospective projects in the region - **an opportunity to get a foothold in the most data-rich part of the basin**
- High-resolution, modern geophysics has not been deployed to the project before
- Leverage $2,000,000 in previous exploration to rapidly generate advanced targets

Appendix – Uranium Deposits & Comparison

TABLE 1. Summary of uranium resources in major Paleo- and Mesoproterozoic districts of northwestern Canada (shaded) and Australia; data from Appendix 1.

District	Kt Ore[1]	% U[2]	Tonnes U
Athabasca Basin	29,811	1.97	587,063
Beaverlodge District[3]	15,717	0.165	25,939
Thelon Basin	11,989	0.405	48,510
Hornby Bay Basin	900	0.3	2,700
Kombolgie Basin	87,815	0.323	283,304
Paterson Terrane	12,200	0.25	30.5
Olympic Dam[4]	2,877,610	0.03	863,283

1. Includes past production.
2. Calculated from Kt ore and tonnes uranium, rounded to significant digits.
3. Past production from two "classic vein-type" (Eldorado and Lorado Mills) and one episyenite-type (Gunnar) deposits.
4. Genetically linked with the 1850 Ma Gawler Range volcano-plutonic complex. Olympic Dam is breccia hosted, not unconformity-associated, but is included here for comparison because it is such a vast individual resource of uranium, of approximately the same age as the unconformity-associated deposits listed here (references in Gandhi, 2007).

TABLE 2. Comparison of Athabasca and Thelon basins (after Miller and LeCheminant, 1985; Gandhi, 1989; Kyser et al., 2000).

Attribute	Athabasca	Thelon
Graphitic metasedimentary rocks beneath ore	Distinct	Locally
Paleoweathering profile below basal unconformity	Shallow to deep	Shallow to deep
Subbasins developed via reactivated faults	Yes	Yes
Maximum age of sedimentation (Ma)	ca. 1720-1750	ca.1720
Fluorapatite	Yes	Yes
Aeolian sandstone	Possible	Yes
Arkosic sandstone regionally clay altered	Minor	Yes
Quartz overgrowths preserve hematite rims	Yes	Yes
Early detrital kaolin in matrix	Yes	No?
Peak diagenetic clay minerals	Dickite + illite	Illite
Peak diagenetic / hydrothermal temperatures	~240°	~200°
Illite incorporates Mg and Fe	in regolith only	Variable
Corroded zircon grains near ore zones	Local	No?
Regional fresh zircon	Yes	Yes
Extensive aluminum phosphate ± sulphate	Yes	Yes
potassium-feldspar + chlorite at 1 Ga	No	Yes
Late vein carbonate from meteoric water	Yes	Yes
Bleaching and clay alteration halos	Yes	Yes
Sandstone / unconformity-hosted uranium	Yes	One example
Basement-hosted uranium	Yes	Yes
Significant deposits	Yes	One

Jefferson, C.W., Thomas, D.J., Gandhi, S.S., Ramaekers, P., Delaney, G., Brisbin, D., Cutts, C., Quirt, D., Portella, P., and Olson, R.A., 2007, Unconformity-associated uranium deposits of the Athabasca Basin, Saskatchewan and Alberta, in Goodfellow, W.D., ed., Mineral Deposits of Canada: A Synthesis of Major Deposit-Types, District Metallogeny, the Evolution of Geological Provinces, and Exploration Methods: Geological Association of Canada, Mineral Deposits Division, Special Publication No. 5, p. 273-305.