



Energy Transition Metals Summit
Washington DC
April 29, 2024

Building America's Uranium Resources

April 2024

CSE:NF | OTCQX:NFUNF

www.nuclearfuels.energy

Cautionary Statement

Investors are cautioned that, except for statements of historical fact, certain information contained in this document includes "forward-looking information," with respect to a performance expectation for Nuclear Fuels Inc., (the "Company") Such forward-looking statements are based on current expectations, estimates and projections formulated using assumptions believed to be reasonable and involving a number of risks and uncertainties which could cause actual results to differ materially from those anticipated.

Such factors include, without limitation, fluctuations in foreign exchange markets, the price of commodities in both the cash market and futures market, changes in legislation, taxation, controls and regulations of national and local governments and political and economic developments in Canada and other countries where the Company carries-out or may carry-out business in the future, the availability of future business opportunities and the ability to successfully integrate acquisitions or operational difficulties related to technical activities of mining and reclamation, the speculative nature of exploration and development of mineral deposits located, including risks in obtaining necessary licenses and permits, reducing the quantity or grade of reserves, adverse changes in credit ratings, and the challenge of title.

The Company does not undertake an obligation to update publicly or revise any forward-looking statements or information, whether as a result of new information, future events or otherwise, unless so required by applicable securities laws.

The corporate presentation has been reviewed and approved by Mark Travis, CPG., a contractor to the Company, and a Qualified Person as defined in National Instrument 43-101.

Nuclear Fuels: Building America's Uranium Resources

- Focused on the Kaycee Project, in Wyoming's Powder River Basin, with existing historic resources through a 33 mile trend, 110+ miles of mapped roll-fronts and 3,800 drill holes;
- Aggressive uranium exploration of known, under-explored projects; often with historic resources;
- Organically adding additional Uranium exploration projects in the Powder River Basin, Wy and through the US Southwest;
- Under certain conditions, enCore Energy Corp. maintains the right to back-in to 51% ownership by paying the Company 2.5X its exploration expenditures and financing the project to production;
- Proven leadership in the uranium sector;
- Growing demand & support for nuclear energy.



Capital Structure

Market Capitalization (@\$0.50)	\$33,177,852 CDN
Shares - Issued and Outstanding	60,323,368
Warrants	6,980,024
Options	3,722,000
Fully Diluted	71,025,392

As of April 29, 2024

Key Shareholders:

- enCore Energy Corp. 18.3%
- Management/Insiders 7.9%

Total Escrow (all positions): 10,184,709 shares

Board of Directors and Management



William M. Sheriff, Chairman

Mr. Sheriff is the founder and presently serves as the Executive Chairman of enCore Energy Corp.



Michael Collins P. Geo., Director and CEO

Mr. Collins founded Bluerock Resources which was the only new uranium producer in the 2000-2008 uranium cycle in the US southwest.



David Miller, Director

Mr. Miller previously served as the Chief Executive Officer of Strathmore Minerals Corp. prior to its merger with Energy Fuels in 2013.



Larry Lahusen, Director

Mr. Lahusen directed and designed exploration programs that resulted in the discovery and subsequent development of the two uranium deposits located in the Lisbon Valley District, Utah.



Eugene Spiering, Director

Mr. Spiering is a registered geologist with over 30 years experience and worked on the Kaycee Uranium District in the early 1980's.



Richard A. Munson, Director

Mr. Munson was a key executive in the mid-1980's and early 1990's at Nuclear Fuels when Nuclear Fuels was the largest US uranium producer.



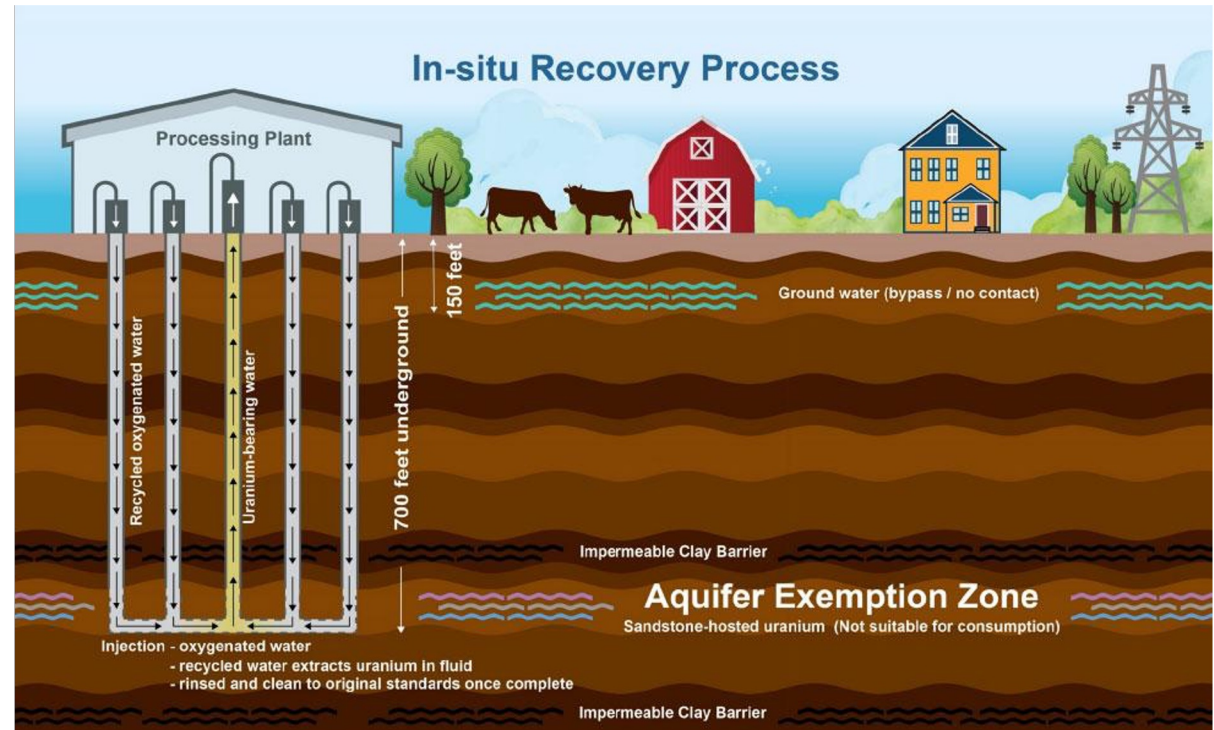
Aggressive Uranium Exploration



What is In-Situ Recovery "ISR"

Environmentally-responsible and economically superior uranium extraction.

- Over 60% of all uranium extraction globally is ISR;
- Extraction of uranium in solution through a system of injection and recovery wells;
- No toxic chemicals used; oxygen injected with water;
- Over 99% of water is recycled, a large savings compared to conventional mining;
- Minimal surface disruption, no tailings, no waste piles;
- Land and water reverts to original use category once extraction completed.



Assets in Uranium Mining Jurisdictions

3 Projects in Wyoming :

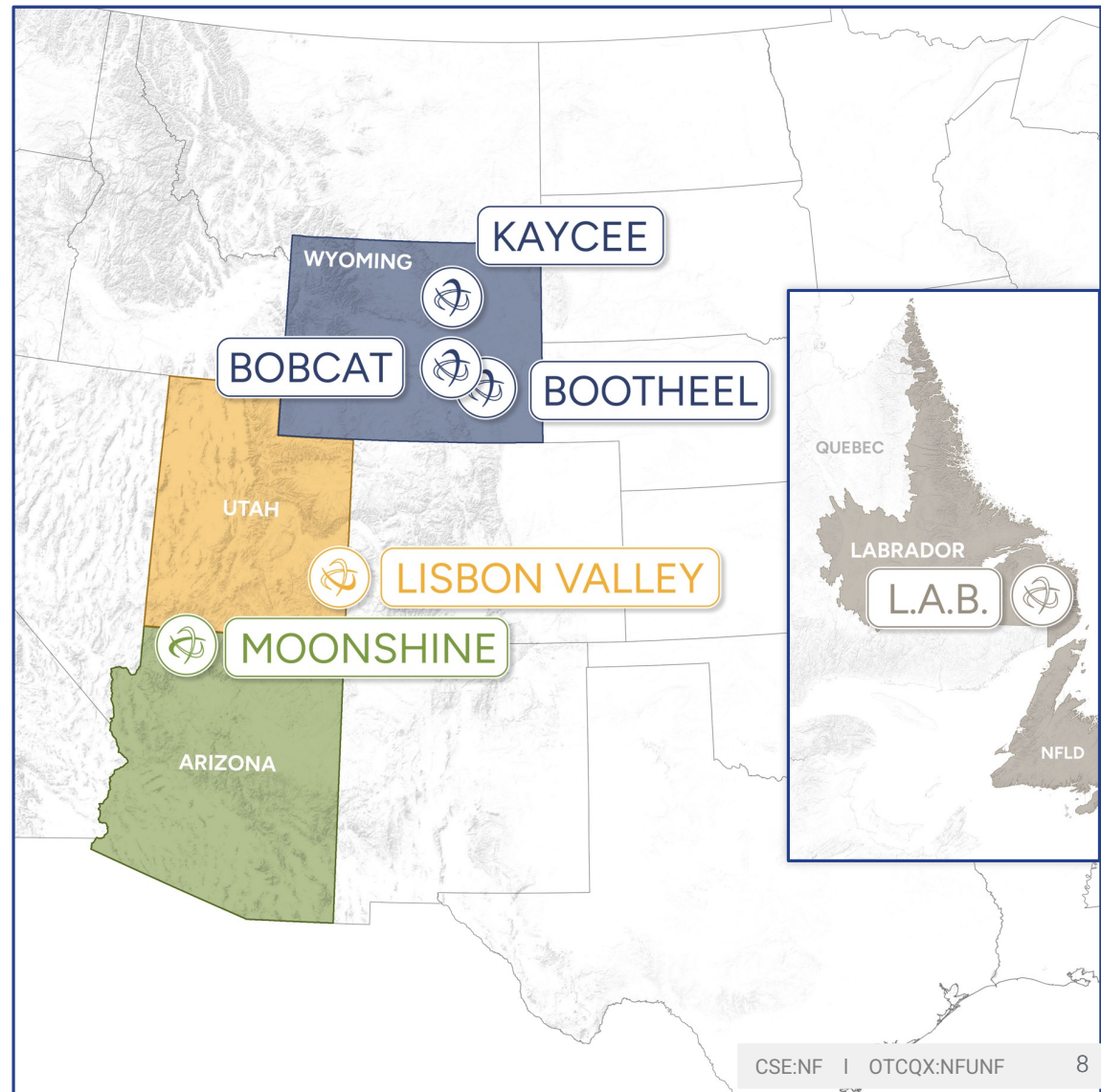
- Largest current ISR* uranium resources of any state;
- Progressive ISR uranium permitting jurisdiction;
- Agreement State (with Nuclear Regulatory Commission) provides for "one-window" streamlined permitting of new uranium projects;

Arizona:

- An uncategorized historic resource of 3.6 million pounds grading 0.186% U_3O_8 **;
- Excellent expansion potential along known trend.

*ISR – In-Situ Recovery: Proven extraction process

** After Energy Fuels, 1993 quarterly report. A Qualified Person (as defined in NI 43-101) has not done sufficient work to classify the historical estimate as a current mineral resource. Nuclear Fuels believes the historical results are relevant and reliable for the purposes of defining areas for further exploration work. Additional work will be required to verify and update historical estimates, including a review of assumptions, parameters, methods and testing. The historical estimates do not use the current mineral resources categories prescribed under NI 43-101. Nuclear Fuels is not treating the historical estimate as a current mineral resource.

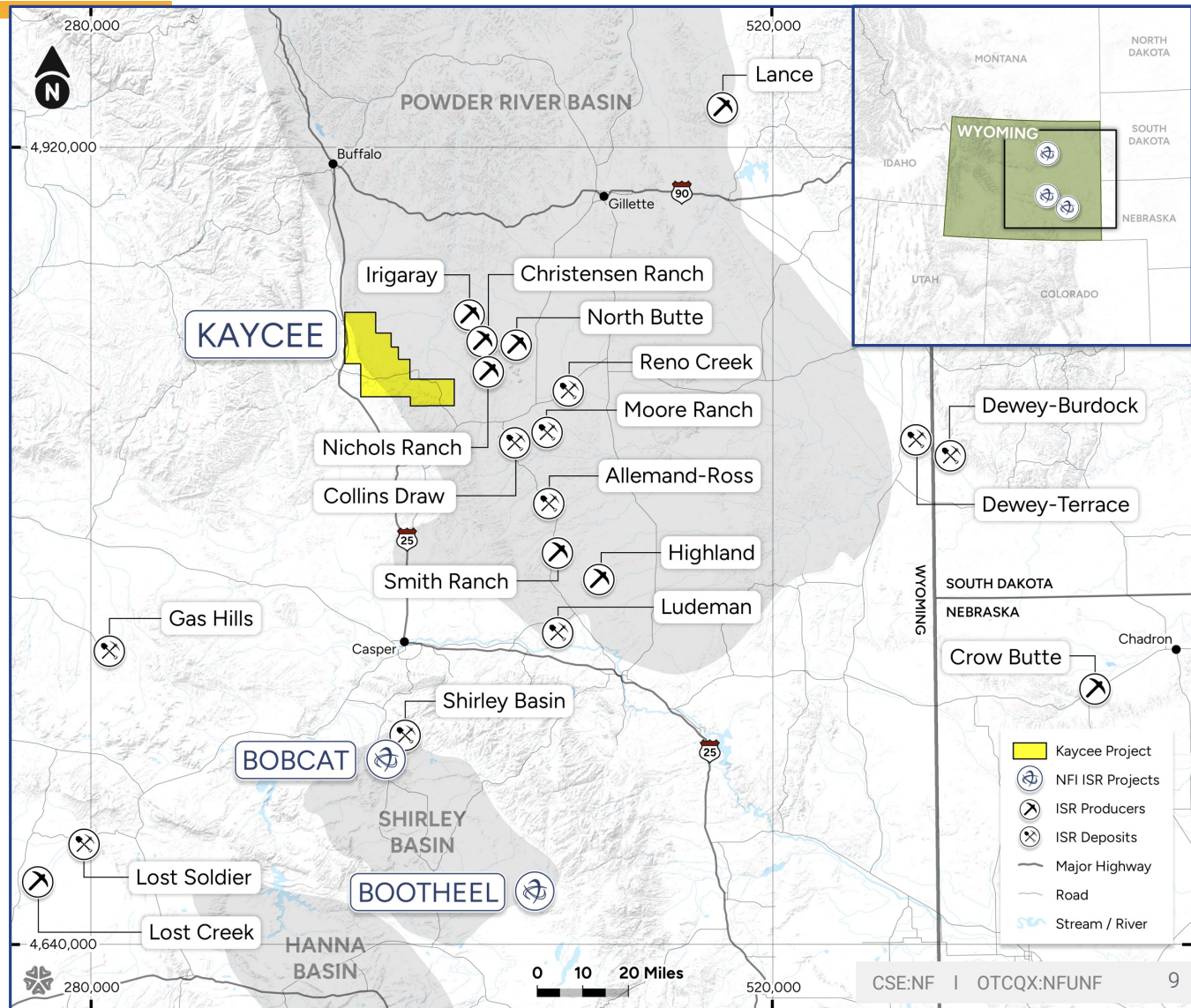




Wyoming: America's Leading ISR State

- Wyoming is home to the largest known ISR uranium ore reserves in the United States;
- Proven & prolific uranium producer since 1950's – over 250 MM lbs;
- The Powder River Basin hosts the majority of the ISR projects in the state;
- At least 10 ISR operations have produced over 45 MM lbs of yellowcake - $U_3O_8^*$;
- Pro energy development government at the state and local levels.

**Exploration results on adjacent projects and geologically similar projects are not necessarily indicative of the mineral potential of Nuclear Fuels' Wyoming projects.*



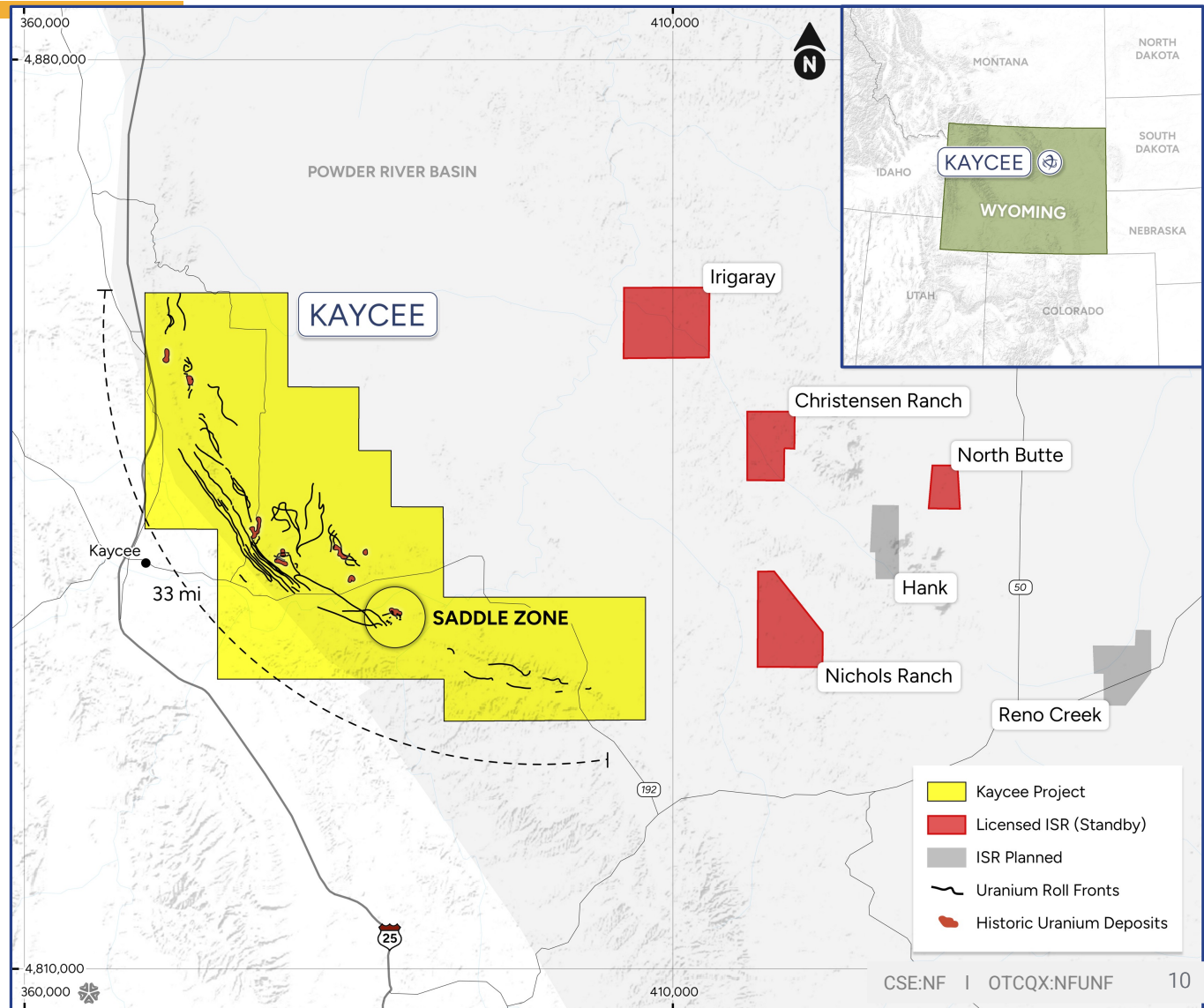


Kaycee Project

- 33 miles of trend;
- 110 miles of mapped uranium roll fronts;
- Data base of 3800 historic drill holes
- Historic drilling focused on defining near surface potential across the project area

Opportunity:

- Expanding historic resources across the project as a whole while exploring for additional roll fronts mineralization at depth

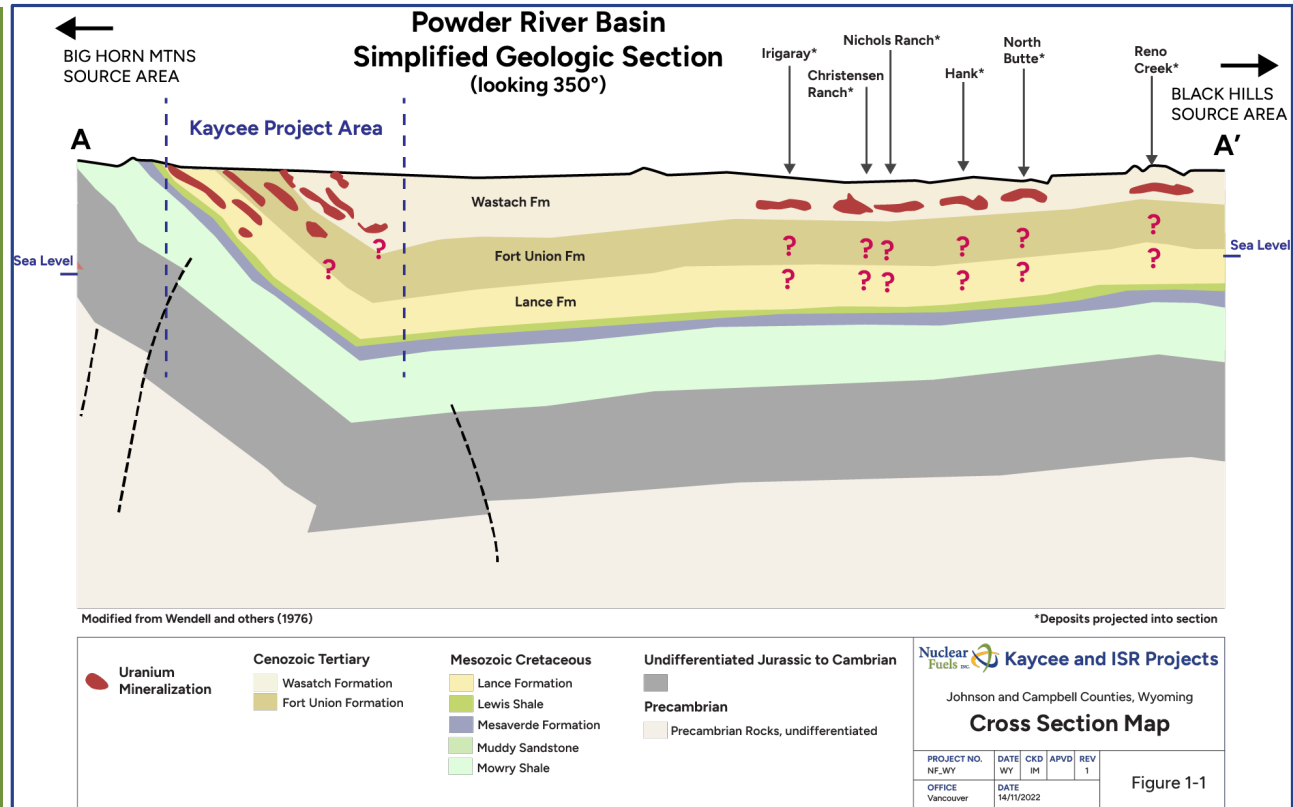


*** After Energy Fuels, 1993 quarterly report. A Qualified Person (as defined in NI 43-101) has not done sufficient work to classify the historical estimate as a current mineral resource. Nuclear Fuels believes the historical results are relevant and reliable for the purposes of defining areas for further exploration work. Additional work will be required to verify and update historical estimates, including a review of assumptions, parameters, methods and testing. The historical estimate does not use the current mineral resources categories prescribed under NI 43-101. The historical estimates do not use the current mineral resources categories prescribed under NI 43-101. Nuclear Fuels is not treating the historical estimate as a current mineral resource.*



Wyoming: Kaycee Project Cross-Section

- Western limb of Powder River Basin-exclusive and unique opportunity for Nuclear Fuels;
- Primary exploration focus in Wyoming; a very large project occupies over 40 sq. miles of the western limb of the Powder River Basin;
- Testing in early 1980's established ISR amenability in the Wasatch, Fort Union and Lance formations*;
- Believed to be the only project where all three formations are mineralized and amenable to ISR extraction within potentially economical depths.

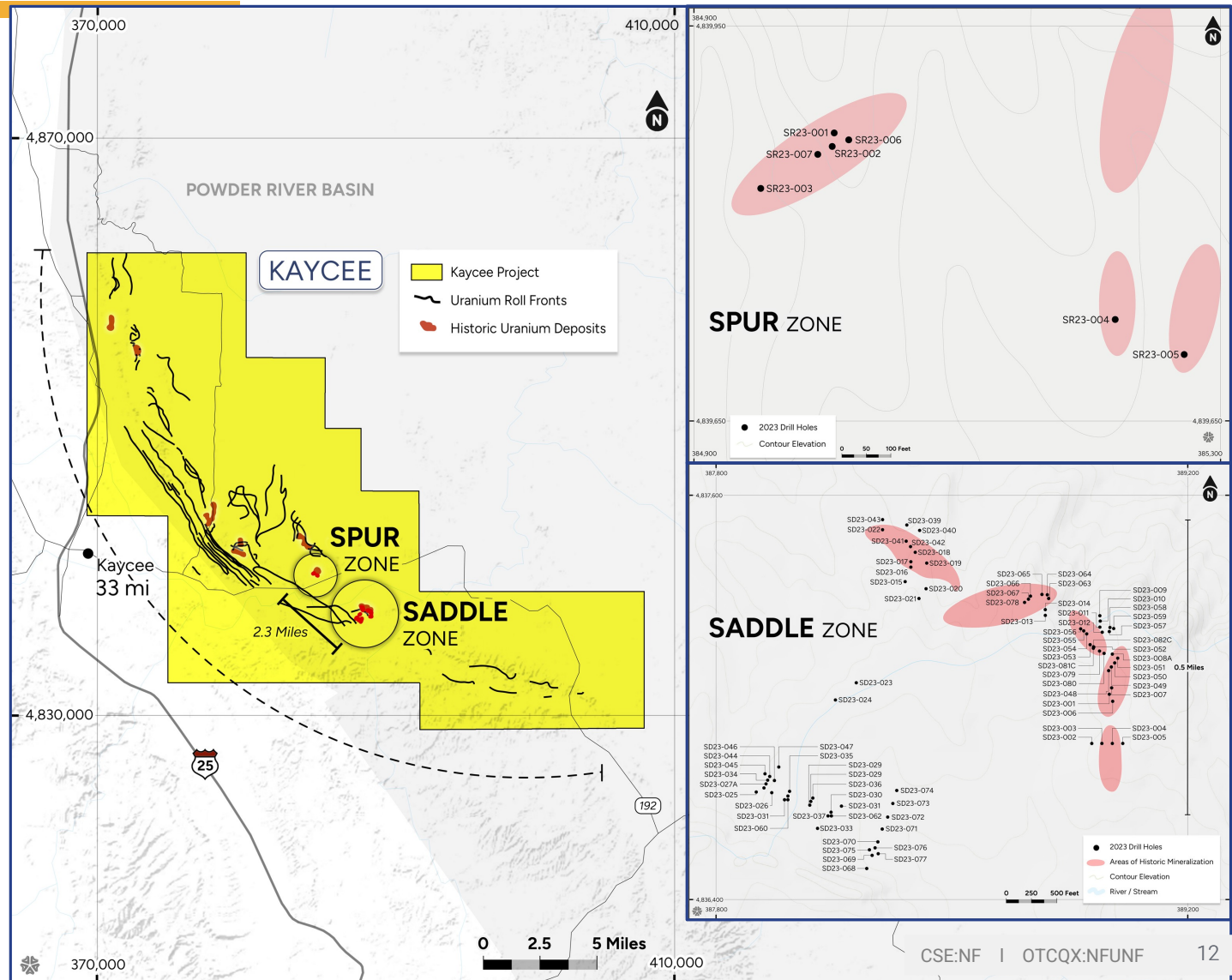


* based on information from an internal report of Washtenaw Energy Corporation (1982) by R. A. Fruchey and Spiering Report (1983) E. Spiering



Kaycee Project Initial Drill Results: Significant Results

- High-grade mineralization was encountered in numerous holes;
- Twenty one reported holes have Grade Thickness (GT) of over 0.4 eU₃O₈ with 0.3 eU₃O₈ considered an economic minimum for inclusion in a typical wellfield in the Power River Basin;
- Phase 1 drilling focused on confirming and expanding historic resources;
- Drilling in 2024 will expand on existing historic resource areas and evaluate historic targets areas for resource potential.





Significant 2023 Drilling Results

- Nuclear Fuels started drilling at the Saddle Zone in November 2023 – completed 89 holes in 6 weeks;
 - Confirming existing Historic drilling grades and thicknesses;
 - Drilling both infill and extension of historic drilled trends;
 - Identifying new mineralized zones in the Fort Union Formation at Saddle.
- Drilling at Saddle and Spur Separated by 2.3 miles
- High potential to build pounds in between the two areas:

Drill holes are reported that returned significant zones of uranium mineralization with >2 ft thickness at or above a grade cut-off of 0.02 per cent eU3O8 or that are relevant to exploration targeting. (1) %U₃O₈ by Gamma logging is a measure of gamma intensity from a decay product of uranium. Gamma log assays may be in disequilibrium with ICP-MS assays. Comparisons of U₃O₈ Gamma log and ICP-MS assays of Powder River Basin core samples indicate that U₃O₈ Gamma is comparable to ICP-MS uranium assay in the Powder River Basin. (2) Grade Thickness, or GT, is defined as the product of the mineral grade multiplied by the thickness of the mineralization.

Drill Hole ID	Zone	From (ft)	Thickness (ft)	Grade (%U3O8)	GT (Grade X Thickness)	Total Hole GT
Saddle Zone Drilling						
SD23_001	1	248.0	3.5	0.126	0.441	
SD23_008A	3	293.5	7.0	0.097	0.679	
SD23_009	3	331.0	4.0	0.227	0.908	
SD23_010	2	330.5	3.5	0.240	0.840	
SD23_012	1	285.5	4.0	0.180	0.720	
SD23_015	1	165.5	3.0	0.134	0.402	
SD23_020	1	178.0	3.5	0.252	0.882	
SD23_020	2	184.5	4.0	0.121	0.484	1.366
SD23_022	2	207.0	4.0	0.134	0.536	
SD23_048	1	254.0	3.5	0.187	0.655	
SD23_050	2	291.5	7.0	0.142	0.994	
SD23_051	4	287.5	5.0	0.082	0.410	
SD23_052	3	278.5	6.5	0.187	1.216	
SD23_053	2	257.5	3.5	0.172	0.602	
SD23_054	1	270.5	4.0	0.218	0.872	
SD23_065	1	297.5	6.5	0.077	0.501	
SD23_065	2	305.5	4.5	0.237	1.067	1.567
SD23_067	3	287.5	3.0	0.147	0.441	
SD23_067	4	298.0	4.0	0.117	0.468	0.909
SD23_081C	1	277.0	6.0	0.081	0.486	
Spur Zone Drilling						
SR23_001	1	401.5	5.5	0.141	0.776	
SR23_002	2	415.5	3.5	0.141	0.494	
SR23_002	3	422.0	4.5	0.233	1.049	1.542
SR23_006	1	416.0	3.0	0.117	0.351	



Bootheel Project Wyoming

- Unique opportunity to expand historic resources as roll-front mineralization occurs in three ages of sandstone;
- Mineralization is amenable to ISR extraction with unusually positive fluid dynamics;
- Historic NI 43-101 Resources*:

Resource Category	Formation	Short Tons	Grade %U ₃ O ₈	Contained U ₃ O ₈ (lb)
Indicated	Sundance	1,433,000	0.038	1,089,000
Inferred	Sundance	3,637,000	0.031	2,268,000
Inferred	Wind River	762,000	0.064	981,000
Inferred	Total	4,399,000	0.037	3,249,000

Resource Criteria:

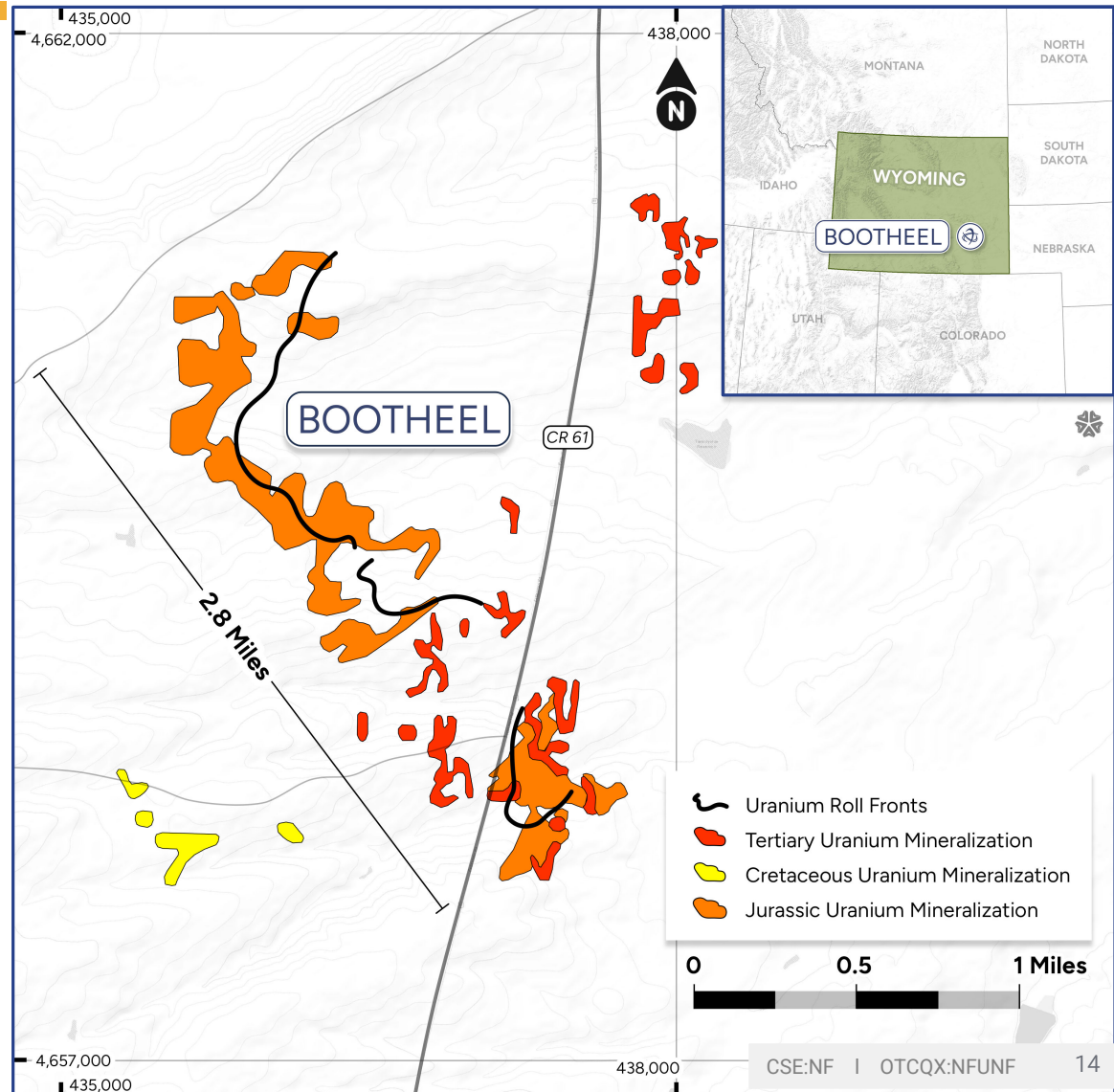
Sundance Formation >0.015% eU₃O₈, >4 ft thickness, Min GT of 0.15

Wind River Formation >0.020% eU₃O₈, >4 ft thickness, Min GT 0.15

Long term price of US\$70 per pound U₃O₈, Tonnage factor of 16 ft/ton for the Sundance Formation and 15 ft/ton for the Wind River Formation.

High grades where not cut for the Mineral Resource estimate.

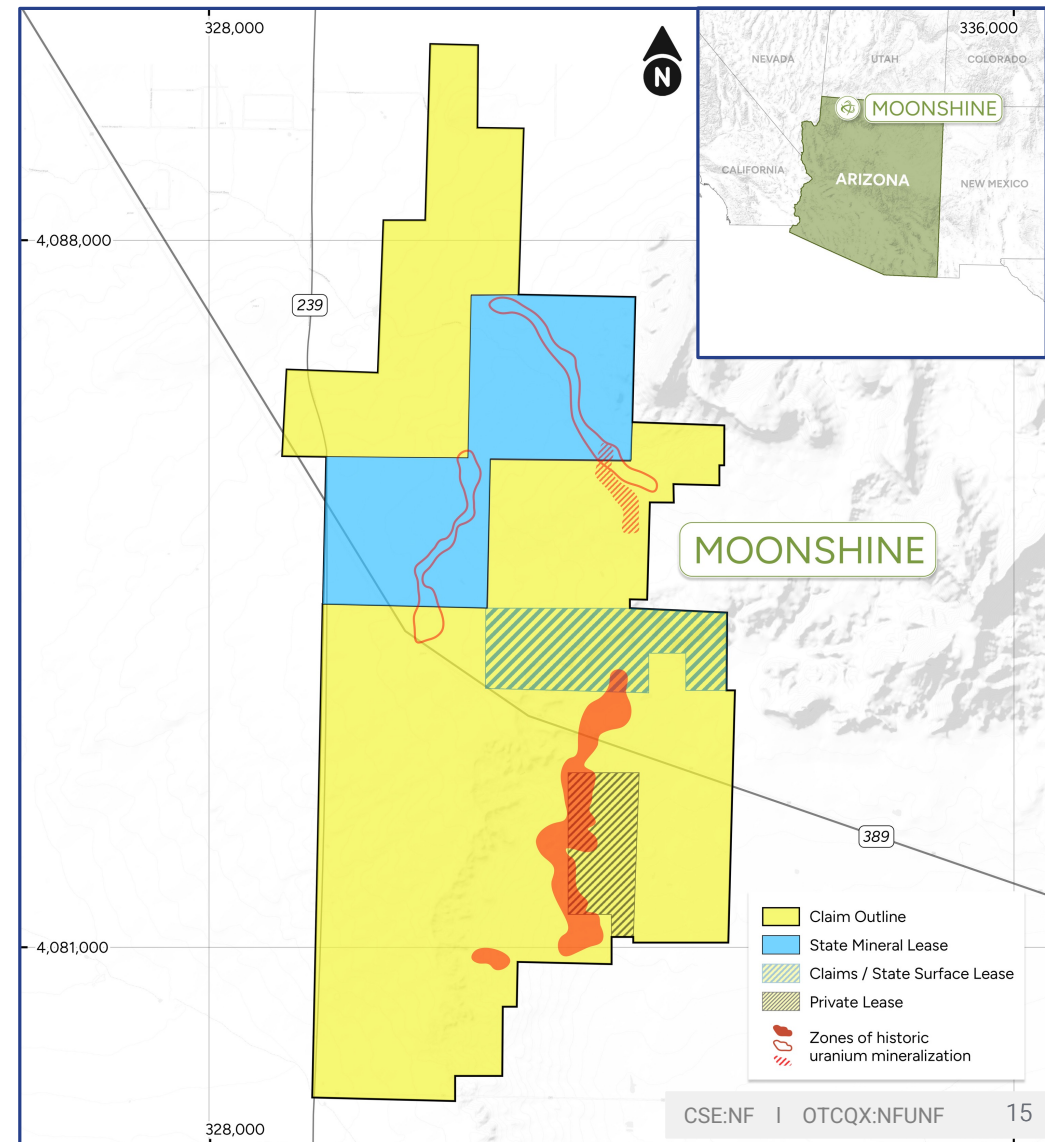
*Readers are cautioned that a qualified person has not done sufficient work to classify any of the historical estimates as current mineral resources or mineral reserves as defined by NI 43-101. The Company is not treating the historical estimates as current mineral resources or reserves as defined by NI 43-101. Further compilation of the historic geological and drilling data, and resource modelling will be necessary to convert the historic estimates outlined above to NI 43-101 conforming mineral resources. The historic resource is found in "TECHNICAL REPORT ON THE BOOTHEEL PROPERTY, SHIRLEY BASIN MINING DISTRICT, ALBANY COUNTY, WYOMING, U.S.A. (2009) by D.H Underhill and W.E. Roscoe



Moonshine Project, Arizona

- An uncategorized historic resource of 3.6 million pounds grading 0.186% U_3O_8 *;
- Potentially amenable to ISR extraction process;
- 3-mile of trend of uranium mineralization identified with limited drilling;
- High grade results for ISR when compared to peers, where typical production grades range from 0.04 to 0.07% U_3O_8 .

* After Energy Fuels, 1993 quarterly report. A Qualified Person (as defined in NI 43-101) has not done sufficient work to classify the historical estimate as a current mineral resource. Nuclear Fuels believes the historical results are relevant and reliable for the purposes of defining areas for further exploration work. Additional work will be required to verify and update historical estimates, including a review of assumptions, parameters, methods and testing. The historical estimates does not use the current mineral resources categories prescribed under NI 43-101. Nuclear Fuels is not treating the historical estimate as a current mineral resource.

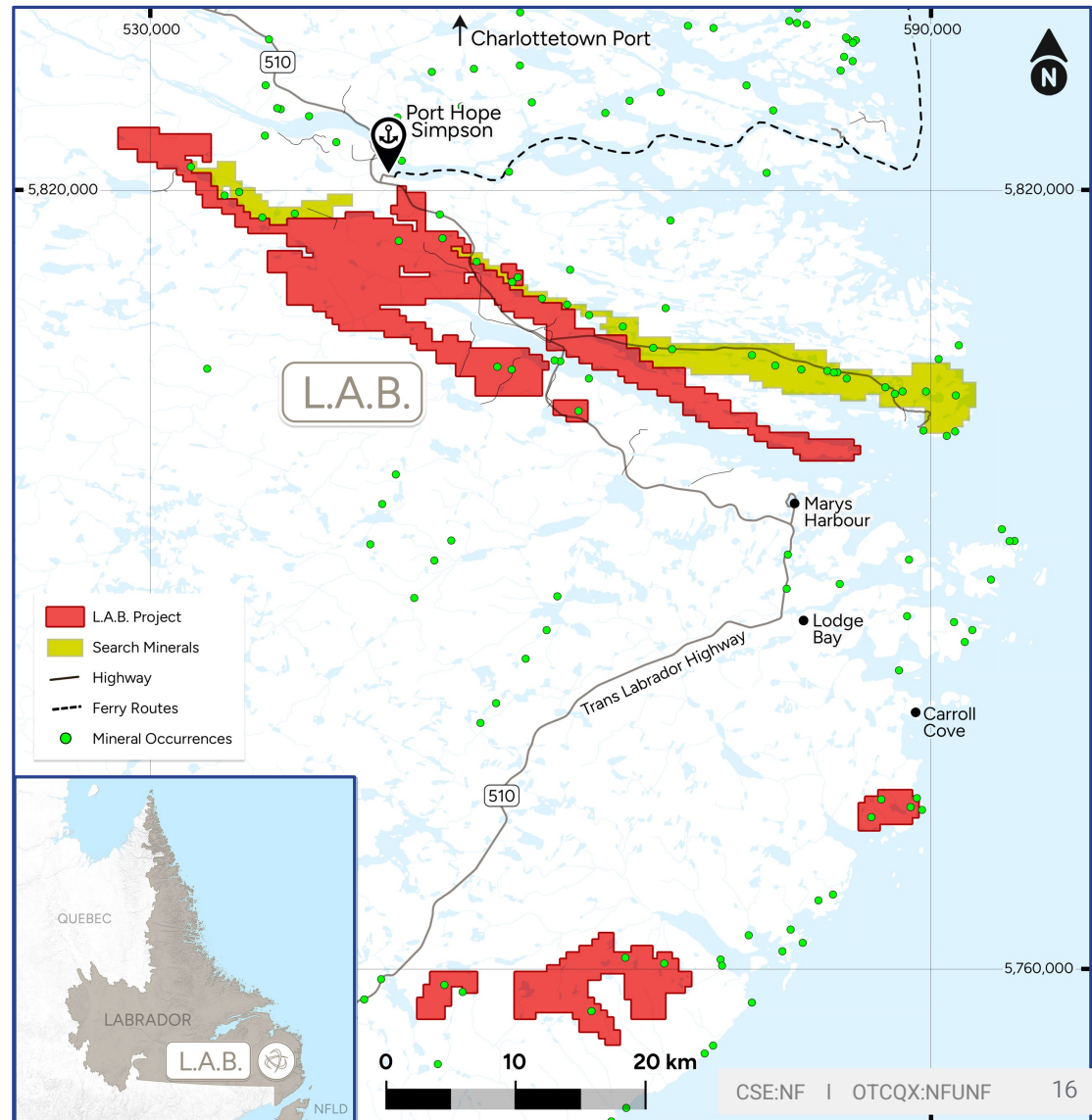


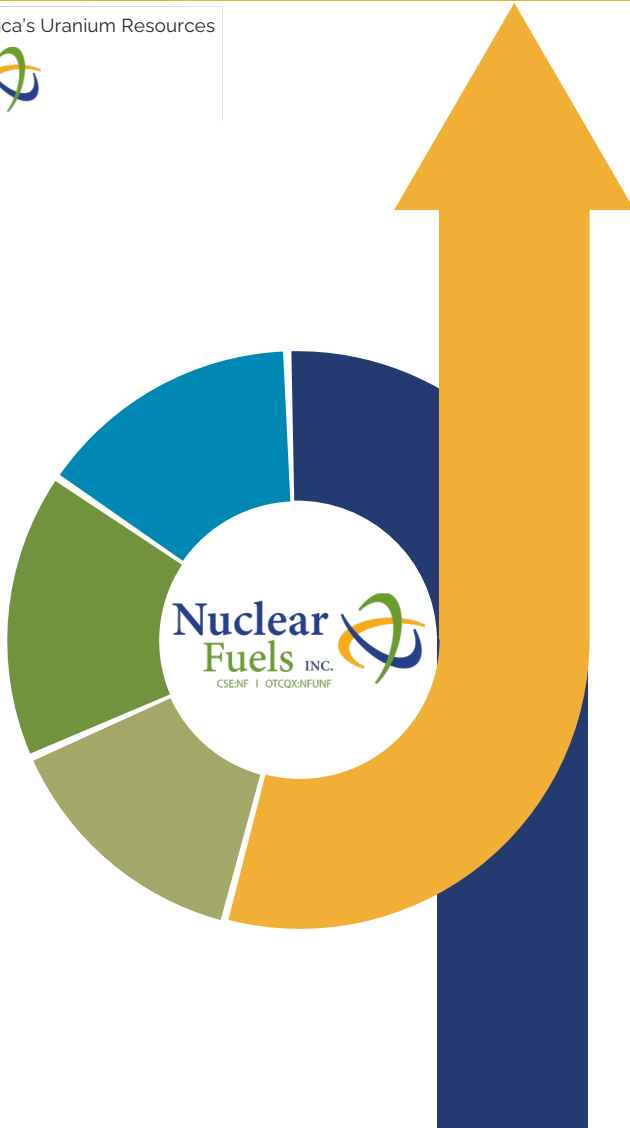
L.A.B. Critical Metals Project, Labrador

- Uranium values in outcrop with grades of 1 to 6.7%*;
- District-scale potential with numerous highly-enriched rare earth element (REE) occurrences along 30km trend.

Alexander, S., Mac Gillivray G., Dimmell P., Silver Spruce Resources Inc. 2008 assessment Report, Straits Property. NL Geoscience reference LAB1505

The technical content of the LAB Critical Metals Summary has been reviewed and approved by Michael Collins, P.Geo., (BC Permit #1003770 and PEGNL), an officer of the Company, and a Qualified Person as defined in National Instrument 43-101.





Investment Summary

- United States focus – Opportunity to address the import challenges in the US nuclear power sector where 60% of uranium comes through Russia and only a small percentage is produced domestically today;
- Priority - Kaycee Project, Wyoming with planned 2024 drilling and permitting for 600 drill hole program with 2 drill rigs under contract;
- Expanded 2024 drill program has started which has been built on, and guided by successful 2023 drilling;
- enCore Energy Corp. with the right to back-in to 51% ownership by paying the Company 2.5X its exploration expenditures and financing the project to production under certain circumstances;
- Experienced and proven leadership in the uranium sector;
- Growing demand & support for nuclear energy.



Building America's Uranium Resources

www.nuclearfuels.energy
info@nuclearfuels.energy
+1 778 763-4670

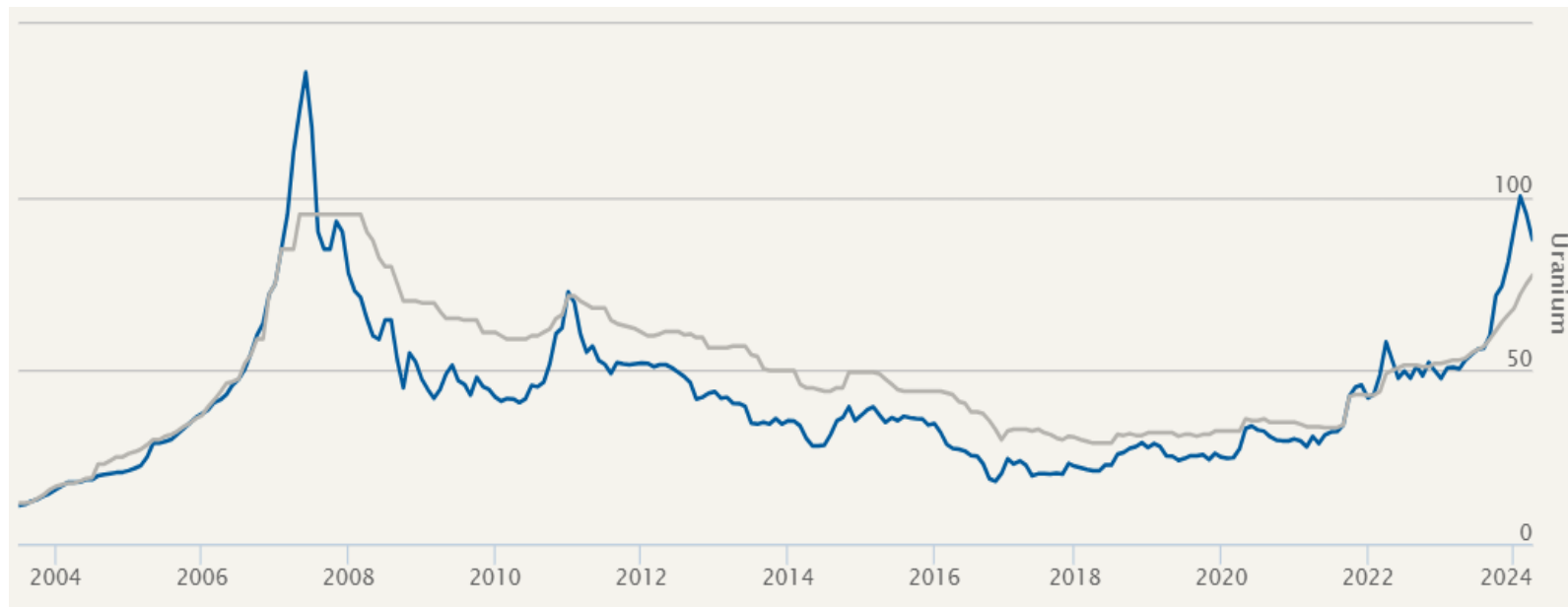
 Nuclear Fuels

 Nuclear Fuels

 @nuclearfuels

 @nuclearfuels

Why Uranium, Why Now



■ Uranium Spot Price (USD\$)

■ Uranium Long term Price (USD\$)

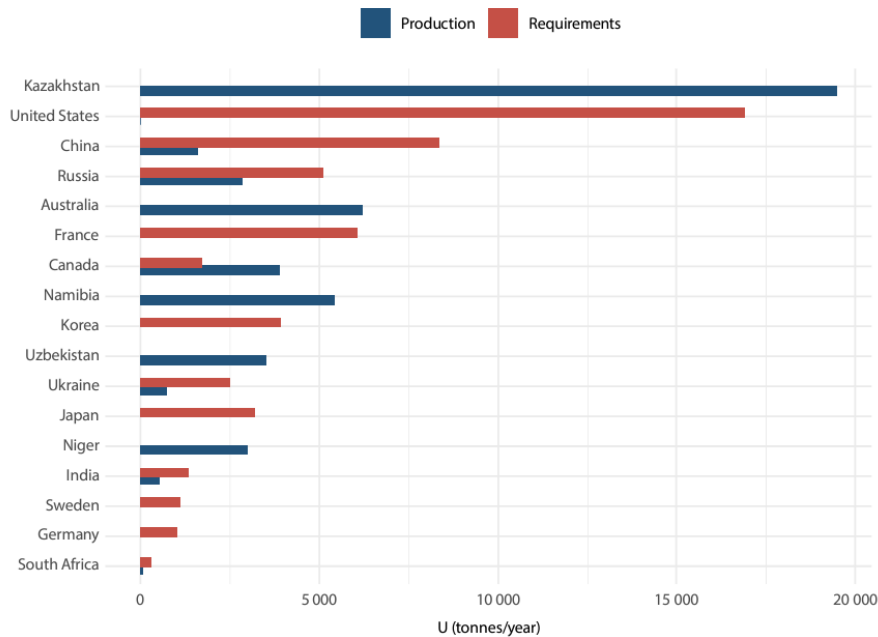
- The uranium price peak in 2007 was drive by supply disruption
- Today's increase in uranium spot price is drive by increase in demand

*<https://www.cameco.com/invest/markets/uranium-price>

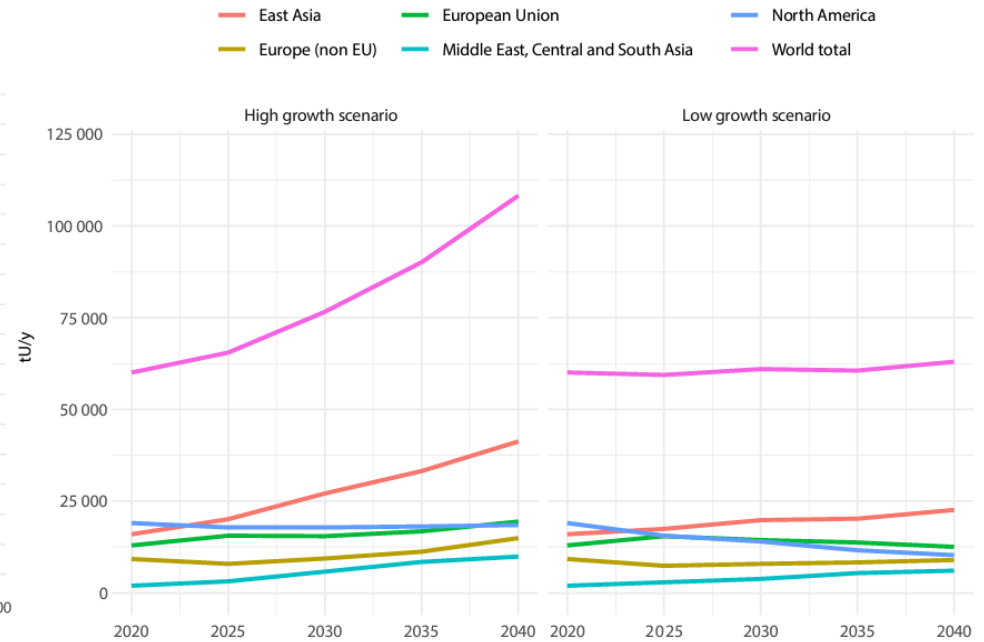


Uranium, Supply and Demand

Uranium Production and Reactor-related requirements for major producing and consuming Countries (as of Jan 1, 2020)



Projected annual reactor-related uranium requirements to 2040 (low and high projections)



- Russia and Kazakhstan produce over 50% of Uranium supply
- The United States of America is the largest consumer of uranium for power generation

* A Joint Report by the Nuclear Energy Agency and the International Atomic Energy Agency, Uranium 2022 Resources, Production and Demand

Why Nuclear Now



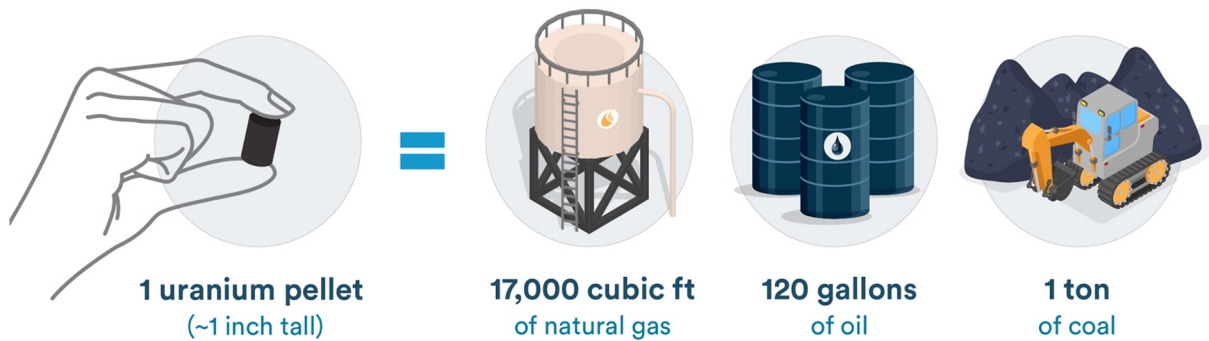
- ✓ With virtually no domestic uranium production, the US is the world's largest consumer using approx.. 47 MM lbs annually
- ✓ Carbon-free & scalable source of electricity available.
- ✓ Nuclear energy is a viable and affordable energy source providing 20% of US electricity, 10% globally.
- ✓ Domestic resource reduces reliance on foreign, producers, many in often unreliable jurisdictions.
- ✓ Ambitious accelerated growth plans for nuclear reactors and small modular reactors in the US and globally.

Nuclear Energy is Clean, Reliable Energy

Fast Facts on

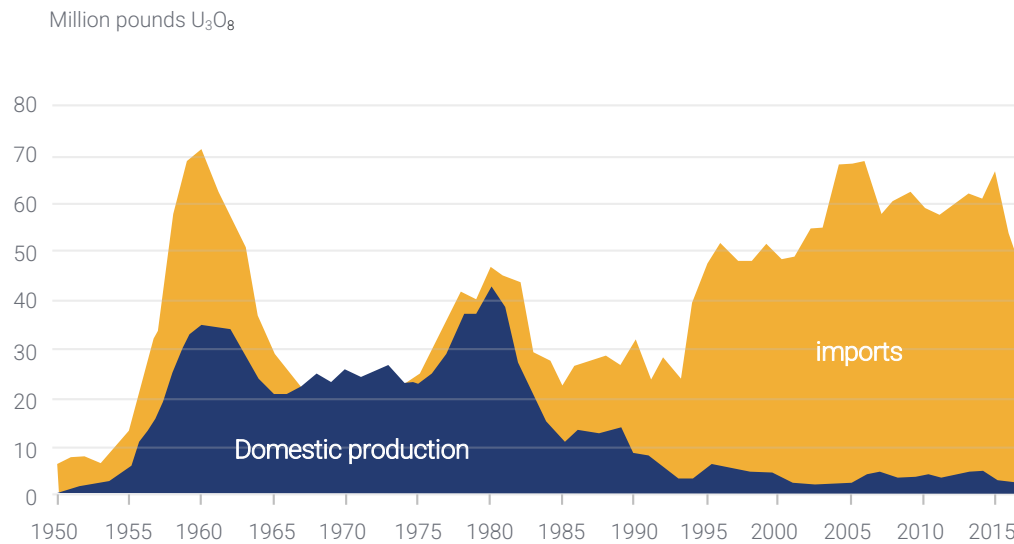
NUCLEAR ENERGY

Nuclear fuel is **extremely energy dense.**



The Nuclear Renaissance

U.S. uranium supply to commercial nuclear reactors (1950-2017)



Domestic Supply Needs

60% of US uranium flows through Russia and is "no longer a trustworthy source of our fuel, and we need to find alternatives here and build up that supply chain" (Kerry Huff, Asst Secretary of Energy).

Bi-Partisan Support

Bi-partisan Infrastructure Law: \$6Bn Nuclear Credit Program.

Inflation Reduction Law provides \$700 million for the nuclear power industry advance reactor design and fuel.