Building a Globally Significant Critical Mineral Company in the US

August 2025

ENERGY FUELS

Forward Looking Statements & Notice Regarding Technical Disclosure

Certain of the information contained in this presentation constitutes "forward-looking information" (as defined in the Securities Act (Ontario)) and "forward-looking statements" (as defined in the U.S. Private Securities Litigation Reform Act of 1995) that are based on expectations, estimates and projections of management of Energy Fuels Inc. ("Energy Fuels") as of today's date. Such forward-looking information and forward-looking statements include but are not limited to: the business strategy for Energy Fuels; Energy Fuels expectations with regard to current and future uranium, vanadium, heavy mineral sands ("HMS") and rare earth element ("REE")market conditions; the uranium industry's ability to respond to higher demand; the impacts of recent market developments; business plans; outlook; objectives; expectations as to the prices of U_3O_8, V_2O_5, HMS products and REE's; expectations as to reserves, resources, results of exploration and related expenses; estimated future production and costs; changes in project parameters; expected permitting and production time lines; the Company's belief that it has the ability to develop an innovative, low-cost U.S.- centered REE supply chain or to build a globally significant critical supply chain company; the potential for additional business opportunities including vanadium, REE,HMS, alternate feed materials, and the cleanup of historic mines on the Navajo Nation and in other areas.; the potential for optimizing mining and processing; the Company's belief in its readiness to capitalize on improving markets; expectations with regard to the potential for U.S. government support of U.S. uranium miners and REE producers; global uranium supply risks; expected worldwide uranium supply and demand fundamentals; any expectation that the White Mesa Mill will be successful in producing REE Carbonate or separated REEs on a commercial basis; any expectation that Energy Fuels will be successful in developing its expanded U.S. separation capability, or other value-added U.S. REE production capabilities at the White Mesa Mill, or otherwise; any expectation that the Company will be successful in developing a fully integrated U.S.-European REE supply chain; any expectation that the Company will be successful in fully integrating the U.S REE supply chain in the future; any expectation with respect to the future demand for REEs; any expectation with respect to the quantities of monazite ore to be acquired by Energy Fuels, the quantities of REE Carbonate or separated REE oxides to be produced by the White Mesa Mill or the quantities of contained TREO in the Mill's REE carbonate; any expectation as to future exploration results for the Bahia Project; any expectation that acceptable fiscal terms and stability mechanisms will be successfully negotiated with the government of Madagascar; any expectation that all government approvals will be obtained, such that development may proceed at the Toliara Project; any expectation that the recovery of monazite will be added to the permits for the Toliara Project; any expectation that all permits will be obtained for the Donald Project; any expectation that the Company will be successful in permitting and developing the planned Phase 2 and Phase 3 REE Separation Facility at the White Mesa Mill; and any expectation that the Company will be successful in recovering radioisotopes for use in emerging TAT cancer therapeutics or that the program will be economically viable.

All statements contained herein which are not historical facts are forward-looking statements that involve risks, uncertainties and other factors that could cause actual results to differ materially from those expressed or implied by such forward-looking information and forward-looking statements. Factors that could cause such differences, without limiting the generality of the foregoing include: risks that the synergies and effects on value described herein may not be achieved; risks inherent in exploration, development and production activities; volatility in market prices for uranium, vanadium, HMS products and REEs; the impact of the sales volume of uranium, vanadium, HMS and REEs; the ability to sustain production from mines and the mill; competition; the impact of change in foreign currency exchange; imprecision in mineral resource and reserve estimates; environmental and safety risks including increased regulatory burdens; changes to reclamation requirements; unexpected geological or hydrological conditions; a potential deterioration in political support for nuclear energy; changes in government regulations and policies, including with respect to tariffs, trade laws and related policies; demand for nuclear power, vanadium, HMS and REEs; replacement of production and failure to obtain necessary permits and approvals from government authorities; weather and other natural phenomena; ability to maintain and further improve positive labor relations; operating performance of the facilities; success of planned development projects; other development and operating risks; the Company not being successful in selling any uranium into the proposed Uranium Reserve at acceptable quantities or prices, or at all in the future; available supplies of monazite sands; the ability of the White Mesa Mill to produce REE Carbonate or separated REE oxides to meet commercial specifications on a commercial scale at acceptable costs; market factors, including future demand for REEs; actions or inactions by foreign governments, such as the government of Madagascar; instability of foreign governments; the inability to receive or delays in the receipt of all required permits for the Toliara project and the Donald Project; the ability of Energy Fuels to potentially recover radioisotopes from its existing process streams for use in TAT therapeutics; the ability to obtain permitsto support any scale-up of radioisotope or REE production at the Mill; and the future development of the TAT market. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those anticipated, believed, estimated or expected. Although Energy Fuels believes that the assumptions inherent in the forward-looking statements are reasonable, undue reliance should not be placed on these statements, which only apply as of the date of this presentation. Energy Fuels does not undertake any obligation to publicly update or revise any forward-looking information or forward-looking statements after the date of this presentation to conform such information to actual results or to changes in Energy Fuels' expectations except as otherwise required by applicable legislation.

Additional information about the material factors or assumptions on which forward looking information is based or the material risk factors that may affect results is contained under "Risk Factors" in Energy Fuels' annual report on Form 10-K for the year ended December 31, 2024. The annual report on Form 10-K is available on SEDAR at www.sedar.com and on EDGAR at www.sec.gov.

All technical information including mineral estimates constituting mining operations that are material to our business or financial condition included in this presentation, have been prepared in accordance with both 17 CFR Subpart 220.1300 and 229.601(b)(96) (collectively, "S-K 1300") and Canadian National Instrument 43-101 - Standards of Disclosure for Mineral Projects ("NI 43-101") and are supported by pre-feasibility studies and/or initial assessments prepared in accordance with both the requirements of S-K 1300 and NI 43-101. S-K 1300 and NI 43-101 both provide for the disclosure of: (i) "Inferred Mineral Resources," which investors should understand have the lowest level of geological confidence of all mineral resources and thus may not be considered when assessing the economic viability of a mining project and may not be converted to a Mineral Reserve; (ii) "Indicated Mineral Resources," which investors should understand have a lower level of confidence than that of a "Measured Mineral Resource" and thus may be converted only to a "Probable Mineral Reserve"; and (iii) "Measured Mineral Resources," which investors should understand have sufficient geological certainty to be converted to a "Proven Mineral Reserve" or to a "Probable Mineral Reserve." Investors are cautioned not to assume that all or any part of Measured or Indicated Mineral Resources will ever be converted into Mineral Reserves as defined by S-K 1300 or NI 43-101. Investors are cautioned not to assume that all or any part of an Inferred Mineral Resource exists or is economically or legally mineable, or that an Inferred Mineral Resource will ever be upgraded to a higher category.

Qualified Person Statement

The scientific and technical information disclosed in this news release was reviewed and approved by Daniel D. Kapostasy, PG, Registered Member SME and Vice President, Technical Services for the Company, who is a "Qualified Person" as defined in S-K 1300 and National Instrument 43-101.

Building a Globally Significant Critical Minerals Company Based in the U.S.

On the Foundation of Our Core Uranium Business

01

<u>Uranium</u>
A leading U.S. producer of U_3O_8

02

<u>Rare Earth Elements</u>
Emerging global leader in producing separated oxides (NdPr, Dy, Tb)

03

<u>Heavy Mineral Sands</u>
An emerging leading global producer of TiO_2, ZrO_2 minerals

=

Value

EF ENERGY FUELS

<u>Common Thread</u>: We produce high-value materials from minerals that naturally contain uranium, or are found alongside minerals that naturally contain uranium

In-Demand Materials Central to Energy, Defense, Mobility & Health

URANIUM

UUUU is the leading U.S. producer of U_3O_8, which is the first step in the production of fuel for clean, baseload nuclear energy

RARE EARTHS

UUUU is a leading U.S. producer of rare earth oxides, which are used in a variety of energy, automotive, advanced manufacturing, defense, robotics, and other technologies

HEAVY MINERAL SANDS

UUUU is advancing 'world-scale' rare earth, titanium & zirconium mineral sand projects globally

VANADIUM

UUUU is a leading U.S. producer of V_2O_5, another critical mineral used in steel, chemical, and battery applications

MEDICAL ISOTOPES

UUUU is performing R&D on potential recovery of radium for use in emerging medical technologies

Our Products Power Several Critical Technologies


Nuclear Fuel Assembly (Uranium)

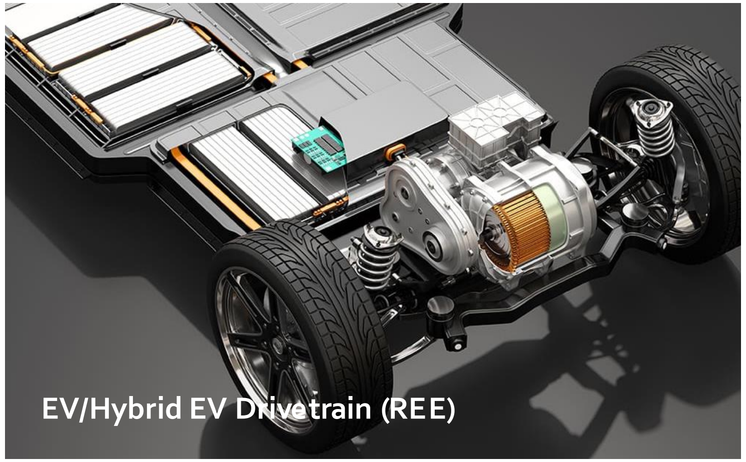

Steel (Vanadium)


Virginia-Class Submarine (REE)


F-35A Jet (REE)


Medical Isotopes (Uranium/Thorium)


Robotics (REE)


EV/Hybrid EV Drivetrain (REE)

Diversified Asset Portfolio To Drive Long-Term Value

Across geography, commodity and stage of development

Energy Fuels Headquarters
(Denver, CO)

Bullfrog (100%)	
Stage	Permitting
Commodity	Uranium

La Sal Complex (100%)	
Stage	Production
Commodity	Uranium, Vanadium

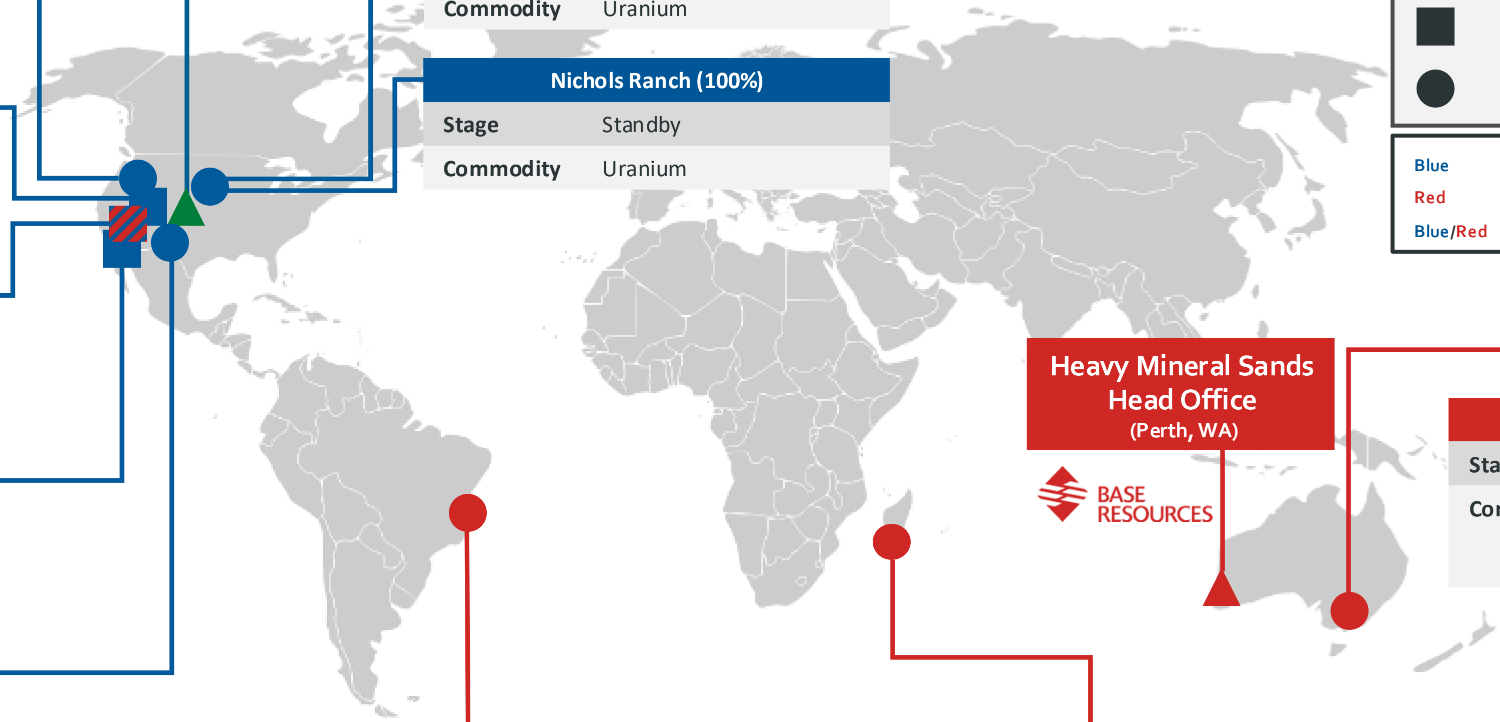
White Mesa Mill (100%)	
Stage	Processing Facility in Production
Commodity	Uranium, REEs, Vanadium

Pinyon Plain (100%)	
Stage	Production
Commodity	Uranium

Roca Honda (100%)	
Stage	Permitting
Commodity	Uranium

Sheep Mountain (100%)	
Stage	Development
Commodity	Uranium

Nichols Ranch (100%)	
Stage	Standby
Commodity	Uranium



Legend

- ▲ *Head office*
- ■ *Producing Asset*
- ● *Development Asset*

Blue	Uranium & vanadium focus
Red	Heavy mineral sand & rare earth focus
Blue/Red	Uranium, rare earth & vanadium processing

Heavy Mineral Sands Head Office
(Perth, WA)

BASE RESOURCES

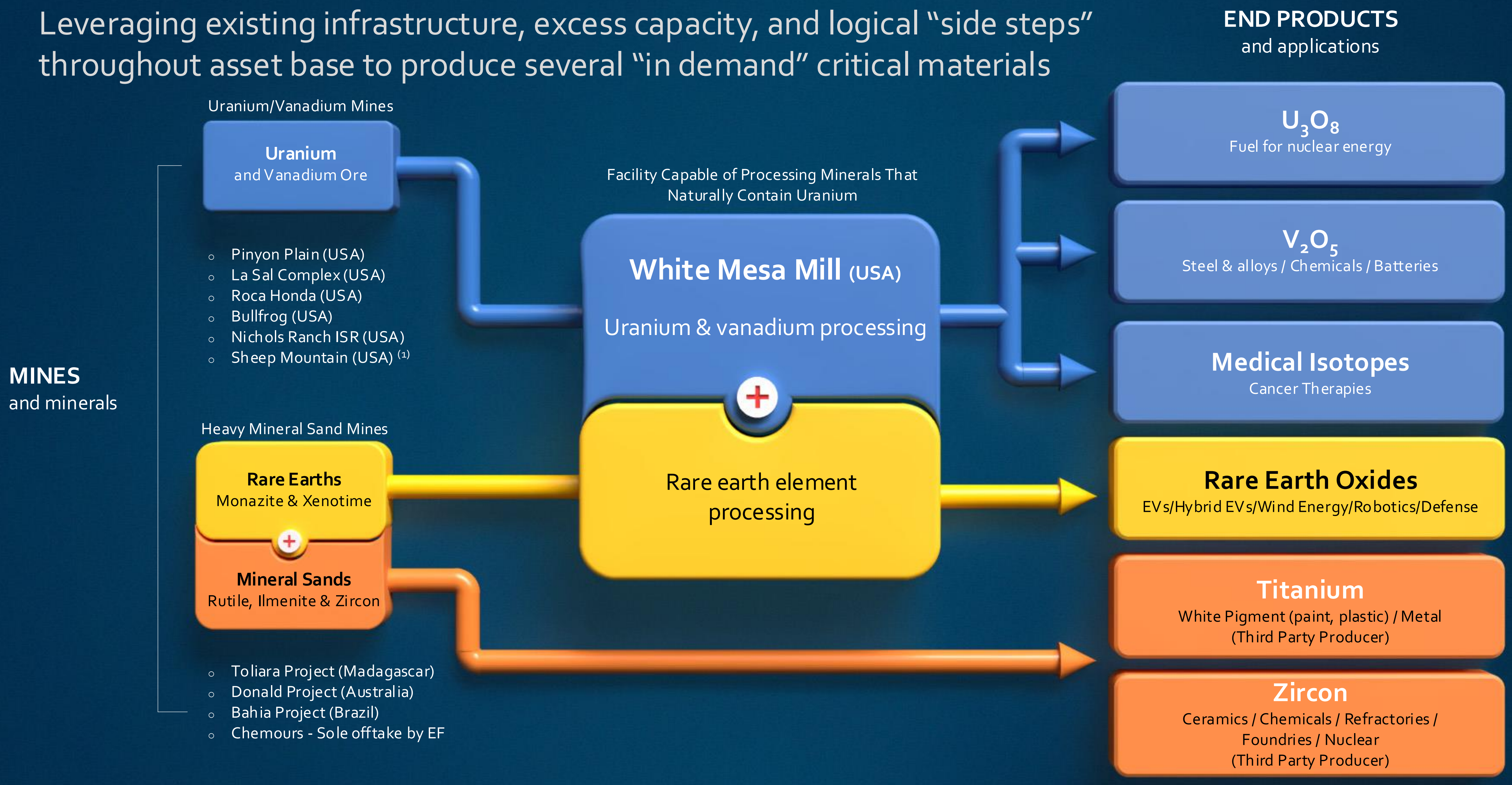
Donald (up to 49% JV interest)	
Stage	Development
Commodity	Monazite, Ilmenite, Zircon, Rutile, Leucoxene

Bahia (100%)	
Stage	Exploration/ Permitting
Commodity	Monazite, Ilmenite, Zircon, Rutile

Toliara (100%)	
Stage	Government Approvals; Development
Commodity	Monazite, Ilmenite, Zircon, Rutile

Complementary Critical Mineral Product Suite

Leveraging existing infrastructure, excess capacity, and logical "side steps" throughout asset base to produce several "in demand" critical materials



(1) The Company is currently evaluating the appropriate processing facility for the Sheep Mountain Project.

The White Mesa Mill (Utah)

Uranium + Rare Earths

Our Mill Makes Everything Possible

- **Only** operating conventional uranium Mill in USA
- The **largest** uranium processing facility in USA
- Fully licensed, permitted & producing
- Licensed capacity to produce 8,000,000+ pounds of U_3O_8 per year
- Only US facility able to recycle uranium-bearing "alternative feed materials" (very low cost)
- 40+ years of operation and expertise
- Opportunity for involvement in US government program to clean up old uranium mines left from "Cold War Era"
- **Only** facility in USA able to process monazite for production of REE oxides

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Energy Fuels' U.S. Uranium Mines

Current & Near-Term Production (increasing up to 2M Lbs of U_3O_8 per year)

Pinyon Plain Mine (Arizona)

In Production (Conventional)

- Potentially the highest-grade uranium mine in U.S. history
- Actively mining and shipping ore to Mill for processing and sale in 2025 and beyond

La Sal Complex (Utah)

In Production (Conventional)

- A complex of several mines along an 11-mile trend
- Adding more mining areas in 2025
- Actively shipping ore to Mill for processing and sale in 2025 and beyond

Nichols Ranch (Wyoming)

Pre-Production (ISR)

- On standby and ready for production pending uranium price increases
- Performing additional delineation & exploration drilling to enhance readiness

Pinyon Plain Mine and La Sal Complex expected to combine for 55,000 to 80,000 tons of ore production in 2025

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Development Pipeline

Large-scale future uranium production

Sheep Mountain (Wyoming)

Development

Roca Honda (New Mexico)

Development

Henry Mountains – Bullfrog (Utah)

Development

Large-Scale In-Ground Uranium Resources

- Nearly 70,000,000 pounds of combined uranium resources
- Combined potential to produce roughly 6,000,000 pounds of uranium per year
- Sheep Mountain is fully permitted for mining; requires processing facility
- Roca Honda currently in permitting and selected by Trump Administration as a "Fast-41 Covered Project"
- Bullfrog is in pre-permitting

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Leading U.S. Rare Earth Production

We achieved commercial-scale production of high-purity NdPr at White Mesa Mill in 2024

Currently being validated for potential offtake

Our Structural Advantages = Top Global Competitor in Rare Earths

- Solvent Extraction ("SX") expertise
- Existing licenses & permits
- Existing U.S. infrastructure
- Proven at-scale
- Ownership of diversified low-cost supplies of feedstock

Monazite: Our Structural Advantage in Rare Earth Ore

Monazite is simply a superior rare earth mineral concentrate

- Super high-grade (50% - 60%+ total REE oxides)
- More NdPr
- More “mid” and “heavy” REE oxides
- Low-cost byproduct of HMS mining
- Value-add uranium
- Easier to process
- High recoveries

The White Mesa Mill is the **only** U.S. facility able to process monazite and produce high-purity REE oxides

Existing solvent extraction ("SX") circuit at the White Mesa Mill producing NdPr in 2024

One (1) tonne “supersacks” of NdPr oxide at the White Mesa Mill

Energy Fuels has proven our ability to produce NdPr at scale
We have also developed the technical ability to produce high purity “mid” and “heavy” REE oxides for Commercial and Defense needs

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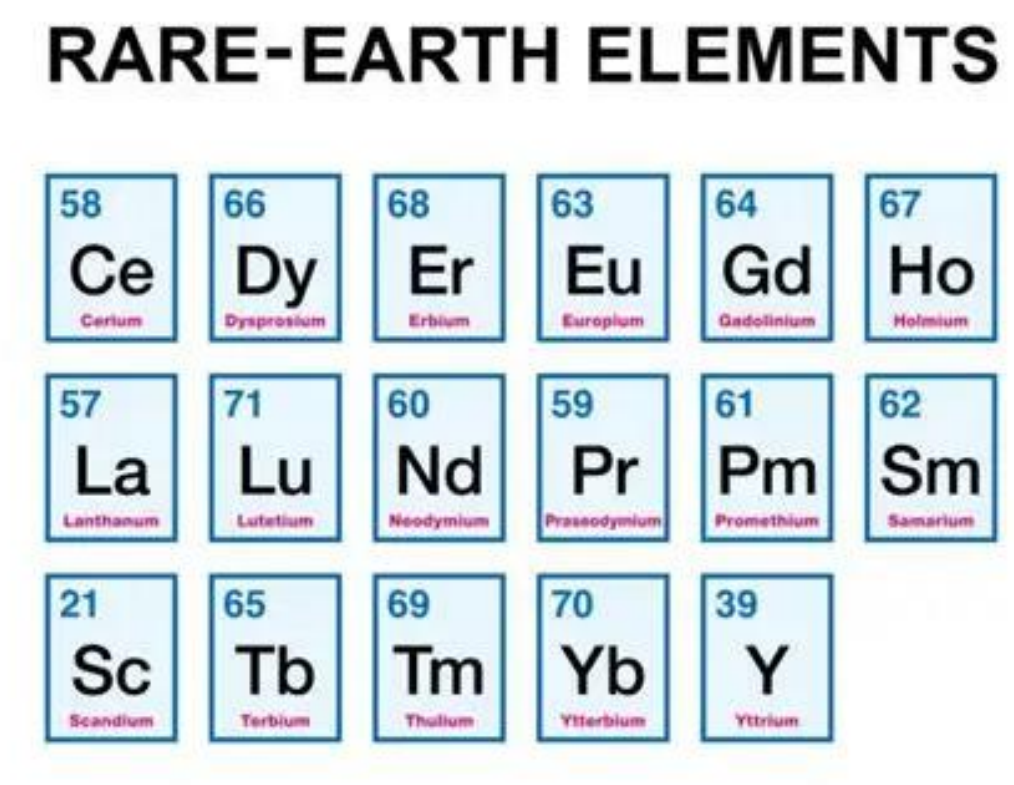
Growing Leader in U.S. REE Industry

Processing in Utah for a growing global market



Leading domestic "heavy" REE oxide separation

- Heavy REEs in high demand
- Anticipate commercial "heavy" REE separation at the Mill as early as Q4 2026
- World leading concentration of "heavies" feedstock identified in Donald Project
- Donald Project "shovel-ready" and fully permitted
- Rising prices for rare earth oxides with particular growth in "heavies" markets
  - NdPr price increase of 19.5% in last month ($61.89 to $73.93)
  - Dy price increase in Europe of 348% ($230 in China to $800 in Europe)
  - Tb price increase of367% ($988 in China to $3,625 in Europe)

Developing an Innovative, Low-Cost REE Supply Chain

Centered in the U.S.

- **Produce low-cost byproduct monazite concentrates from HMS mines globally**
- **Import into the U.S. for processing into separated REE oxides at the White Mesa Mill**

Capital Efficient Rare Earth Supply Chain

REE Process		REE Product
Mining & Beneficiation (Chemours today Toliara, Donald, Bahia in coming years)	Today	**Natural Monazite Ore**
Crack & Leach (White Mesa Mill)	Today	**Mixed REE Carbonate**
Separation (White Mesa Mill)	Today	**Separated REE Oxides**
Metal Making & Alloying (North America, Europe, Allied Asia/Others)	2026/27 (Potential)	**REE Metals & Alloys**
Magnet-Making (North America, Europe, Allied Asia/Others)	Thereafter	**REE Magnets**
Tier 1 Suppliers (North America, Europe, Allied Asia/Others)	Thereafter	**EV/Hybrid Drivetrains, Robots, Defense**

We believe importing high-grade monazite sand byproduct from HMS mines globally is a lower cost way to produce separated REE oxides versus primary REE production

Indicative REE Development Timeline

Monazite pipeline coincides with expansion of REE processing capacity at the White Mesa Mill

Monazite Feedstock Pipeline

FID, Development & Commissioning*

Toliara Project (Madagascar)
Stage 1: Monazite production of 17.4 ktpa
Stage 2: Increase Monazite to 26.1 ktpa

FID, Development & Commissioning

Donald Project (Australia, JV with Astron Corporation)
Phase 1: Monazite production of 7.0 ktpa
Phase 2: Expansion to 14.0 ktpa Monazite

Exploration, Permitting, FID, Development & Commissioning

Bahia Project (Brazil)
Monazite production of 3.0 – 5.0 ktpa

Current Offtake with Chemours Company: Expected to deliver 500 – 1,000+ tpa Monazite

2024	2025	2026	2027	2028	2029+

White Mesa Mill – REE Phase 1: Current installed capacity to process up to 10,000 tpa Monazite and produce up to 1,000 tpa NdPr oxide

Development & Commissioning

White Mesa Mill – REE Phase 2 Expansion
Increase capacity to process up to 60,000 tpa of Monazite to produce up to 6,000 tpa NdPr oxide + 300 tpa of Dy and Tb oxide (plus potentially Sm and other oxides)

White Mesa Mill REE Oxide Production & Expansion Expected Timeline

Ongoing uranium production and revenue with potential to increase production to 2M – 5M pounds of U_3O_8 per year

* Timing subject to receipt of government approvals and stability arrangements, which are currently underway.

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America’s Leading Producer of Uranium, Rare Earths, and Critical Materials

Titanium	Zirconium	Uranium	Rare Earths	Vanadium	Medical Isotopes	Recycling
22 Ti 47.867 Titanium	40 Zr 91.224 Zirconium	92 U 238.02891 Uranium	La Tb Ce Dy Pr Ho Nd Er Pm Tm Sm Yb Eu Lu Gd	23 V 50.9415 Vanadium	88 Ra 226 Radium	

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