Energy Fuels and Hyperion Sign MOU for the Supply of Monazite to Produce Rare Earth Products

written by Raj Shah | April 21, 2021

April 21, 2021 (Source) – **A Further Step in the Development of a Fully Integrated U.S. Rare Earth Element Supply Chain**

- Energy Fuels and Hyperion have signed a memorandum of understanding to evaluate the potential supply of monazite sands from the Titan Project in Tennessee to Energy Fuels' White Mesa Mill in Utah for the production of rare earth products.
- Monazite is a very valuable rare earth-bearing mineral, planned to be produced at the Titan Project as a component of its heavy mineral sand concentrate product.
- The MOU highlights the potential importance of Hyperion's Titan Project, as Energy Fuels advances its initiatives to establish a fully integrated, low-cost U.S rare earth element supply chain.
- Energy Fuels and Hyperion will also evaluate a potential arrangement to collaborate in the development of an integrated U.S. rare earth supply chain.

Energy Fuels Inc. ("Energy Fuels") (NYSE: UUUU) (TSX: EFR) and **Hyperion Metals Limited ("Hyperion") (ASX: HYM)** are pleased to announce the execution of a non-binding memorandum of understanding ("**MOU**") for the supply of natural monazite sands ("**Monazite**") from Hyperion's Titan Project in Tennessee (the "**Titan Project**"). Energy Fuels plans to produce mixed rare earth element ("**REE**") products from processing the Monazite at its White Mesa Mill in Utah.

The parties have also agreed to evaluate a potential teaming, joint venture, equity investment or other arrangement under which Hyperion would collaborate with Energy Fuels, and potentially other parties, in advancing Energy Fuels' current initiative to establish a fully integrated, "mine to market" U.S. rare earth supply chain for the electric vehicle and renewable energy sectors, as well as other specialty uses.

The collaboration between Energy Fuels and Hyperion will initially focus on the potential commercial supply of Monazite from Hyperion's Titan Project to Energy Fuels' White Mesa Mill. Under the MOU, the parties have agreed to negotiate a definitive sales agreement for this supply of Monazite. In addition, subject to Hyperion supplying Energy Fuels with a sufficient quantity of Monazite from the Titan Project within a reasonable period of time, Hyperion and Energy Fuels will evaluate entering into a joint venture or other similar arrangement whereby Hyperion would participate with Energy Fuels, and potentially other parties, in the continuing development and operation of an integrated, low-cost and sustainable independent U.S. rare earth supply chain, under which Monazite would be supplied from The Chemours Company (NYSE: CC) ("**Chemours**") U.S. projects, the Titan Project, and potentially other U.S and international mines, with the Monazite to be processed and separated into value-added rare earth products at Energy Fuels' White Mesa Mill. This could potentially also result in the development of rare earth metal production capabilities.

Hyperion's Titan Project covers a large area of heavy mineral sands properties in Tennessee prospective for titanium, zircon, Monazite and other valuable minerals such as high-grade silica sand and other refractory minerals. The Titan Project is in an area which saw significant historic exploration from 1960 – 1990 by DuPont, BHP and others, strategically located in the southeast of the U.S., close to significant manufacturing

capacity, providing what Hyperion believes to be a significant logistical advantage over current U.S. supplies of imported titanium feedstock.

Hyperion is nearing completion of a three-phase drilling and bulk sampling test work program at the Titan Project. Results to date have successfully confirmed the high grade and significant thickness of mineralization over approximately a 3.6 km strike length. Assays from the drill programs to date have returned thick zones of high-grade Total Heavy Mineral ("**THM**") near surface, with highlights including:

- 47.2m @ 3.69% THM including 10.7m @ 8.09% THM and 10.7m @ 5.47% THM
- 36.6m @ 3.37% THM including 12.2m @ 7.65% THM
- 35.1m @ 3.04% THM including 10.7m @ 8.16% THM
- 41.1m @ 2.14% THM including 9.1m @ 5.55 THM
- 33.5m @ 2.21% THM including 12.2m @ 5.64% THM

Hyperion's bulk sampling test work for flow-sheet development is nearing completion, and is evaluating the production of a number of mineral products, including:

- Titanium minerals – used to produce titanium metal and for the production of paint and pigments;
- Monazite – used for the production of rare earth products;
- Zircon – used for the ceramic and foundry markets; and
- High quality silica – used in float glass, solar panel glass and pharmaceutical grade glass.

A 70-hole Phase 3 drill program is nearing completion, and together with the bulk sample program will form the basis for Hyperion's initial mineral resource estimate expected to be delivered in Q2 2021. For more information about the Titan Project go to: www.hyperionmetals.us

Energy Fuels and Neo Performance Materials Inc. (TSX: NEO) ("**Neo**") recently announced the joint launch of a U.S.-European REE supply chain involving Energy Fuels, Neo and Chemours. Under this emerging initiative, Energy Fuels is currently purchasing 2,500 tons of Monazite per year from the Chemours Company's Georgia (USA) heavy mineral sand operations. Energy Fuels is currently processing this Monazite at its White Mesa Mill in Utah into a clean, mixed REE carbonate, as well as recovering the contained uranium. Energy Fuels is selling this intermediate REE product to Neo's REE separations facility in Sillamae, Estonia for the production of commercial value-added REE products, supplying U.S. and European markets.

In addition to producing mixed REE carbonate, Energy Fuels is also evaluating the potential to develop U.S. separation, metals, alloys, and other downstream REE capabilities at the White Mesa Mill, or nearby, thereby fully integrating a U.S. rare earth supply chain in the coming years. Energy Fuels is seeking to increase its supply of Monazite feed to approximately 15,000 tons per year (or greater) for this initiative. Subject to completion of permitting, development and commencement of operations, the Titan Project is expected to be a potential future source of Monazite to supplement Chemours' supply of Monazite to Energy Fuels.

The MOU highlights the importance of Hyperion's Titan Project as a potentially important source of high value American rare earth minerals, expected to play an integral role in rebuilding sustainable, robust and resilient transportation, energy and defense sectors, and the desire of Energy Fuels to build diversified and significant Monazite feedstocks from various sources.

Energy Fuels' President and Chief Executive Officer, Mr. Mark Chalmers, said: *"Energy Fuels, along with Chemours and Neo, are*

creating a new U.S.-Europe rare earth supply chain. For this initiative to achieve its full potential, we are actively seeking new, ethically-produced sources of Monazite, with sources from the U.S. being our first priority. Therefore, we are excited to work with Hyperion to secure additional sources of Monazite for processing at the White Mesa Mill. Through their association with Piedmont Lithium's project in North Carolina, members of the Hyperion team have demonstrated to us that they have the know-how and resources to bring U.S. critical mineral projects into production. We look forward to working with the Hyperion team and potentially seeing our relationship grow through their participation in a fully-integrated, low cost U.S. rare earth supply chain in the future. We are particularly excited about the prospect of sourcing U.S. mined Monazite, which together with our current supplies from Chemours' Georgia operations and the unique capabilities of the White Mesa Mill, demonstrates to us that a world-competitive and world-scale, fully integrated U.S. rare earth supply chain is becoming a reality."

Hyperion's Managing Director, Mr. Anastasios Arima, said: *"We are excited to progress the potential supply to Energy Fuels of American Monazite for its rare earths supply chain right here in the USA, bringing back sustainable American industry and skilled jobs for generations. The import dependence of the U.S. for key critical minerals, including rare earths and titanium, presents a huge threat to the security of key domestic industries, including defense, space, aerospace, renewables and electric vehicles. Our collaboration with Energy Fuels highlights the importance of Hyperion's Titan Project in the U.S. as a leader in American sourced critical minerals through its plans to produce zero carbon titanium metals, delivering a clean energy future through the supply of rare earth elements for electric vehicles and the renewable power sectors."*

This announcement has been authorized for release by Hyperion's Managing Director.

About Energy Fuels: *Energy Fuels is a leading U.S.-based uranium mining company, supplying U_3O_8 to major nuclear utilities. The Company also produces vanadium from certain of its projects, as market conditions warrant, and is in the process of ramping-up to commercial production of REE carbonate in 2021. Its corporate offices are in Lakewood, Colorado near Denver, and all of its assets and employees are in the United States. Energy Fuels holds three of America's key uranium production centers: the White Mesa Mill in Utah, the Nichols Ranch in-situ recovery ("**ISR**") Project in Wyoming, and the Alta Mesa ISR Project in Texas. The White Mesa Mill is the only conventional uranium mill operating in the U.S. today, has a licensed capacity of over 8 million pounds of U_3O_8 per year, and has the ability to produce vanadium when market conditions warrant, as well as REE carbonate and uranium from Monazite. The Nichols Ranch ISR Project is currently on standby and has a licensed capacity of 2 million pounds of U_3O_8 per year. The Alta Mesa ISR Project is also currently on standby. In addition to the above production facilities, Energy Fuels also has one of the largest NI 43-101 compliant uranium resource portfolios in the U.S. and several uranium and uranium/vanadium mining projects on standby and in various stages of permitting and development. The primary trading market for Energy Fuels' common shares is the NYSE American under the trading symbol "UUUU," and the Company's common shares are also listed on the Toronto Stock Exchange under the trading symbol "EFR." Energy Fuels' website is www.energyfuels.com.*

About Hyperion: *Hyperion Metals' mission is to be the leading developer of zero carbon, sustainable, critical material supply chains for advanced American industries including space,*

aerospace, electric vehicles and 3D printing. The Company holds a 100% interest in the Titan Project, covering nearly 4,000 acres of prospective titanium, rare earth minerals, high grade silica sand and zircon mineral sands properties in Tennessee, USA, as well as an option to secure the exclusive license to produce low carbon titanium metal using the breakthrough HAMR technology, invented by Dr. Z. Zak Fang and his team at the University of Utah with government funding from ARPA-E. The primary trading market for Hyperion's common shares is the Australian Stock Exchange under the trading symbol "HYM." Hyperion's website is www.hyperionmetals.us.

Cautionary Statements Regarding Forward Looking Statements

This news release contains "forward-looking information" within the meaning of applicable securities laws in the United States, Canada, and Australia. Forward-looking information may relate to future events or future performance of Energy Fuels or Hyperion. All statements in this release, other than statements of historical facts, with respect to Energy Fuels' or Hyperion's objectives and goals, as well as statements with respect to their beliefs, plans, objectives, expectations, anticipations, estimates, and intentions, are forward-looking information. Specific forward-looking statements in this discussion include, but are not limited to, the following: any expectation that the Titan Project will be permitted and developed into a commercial producing mine; any expectation that the Titan Project will provide a significant logistical advantage over current U.S. supplies of imported titanium feedstock; any expectation that future exploration or bulk sample results at the Titan Project will meet expectations; any expectation that a JORC Code report will be prepared for the Titan Project and that it will confirm current exploration or bulk sampling results or otherwise meet expectations; any expectation that the Titan Project will contain Monazite in a commercial form or that the Titan Project

will be capable of producing satisfactory amounts of Monazite per year; any estimation of the mine life of the Titan Project or when it may commence production of Monazite, if at all; any expectation that the White Mesa Mill will be successful in producing REE carbonate on a commercial basis; any expectation that Neo will be successful in separating the White Mesa Mill's REE carbonate on a commercial basis; any expectation that Energy Fuels will be successful in increasing its supplies of Monazite, developing U.S. separation, metals or metal/alloy capabilities at the White Mesa Mill or nearby, or otherwise fully integrating a low cost U.S REE supply chain in the future; any expectation with respect to the quantities of Monazite to be acquired by Energy Fuels; any expectation with regard to the cost of producing and separating REE carbonate; and any expectation that Energy Fuels and Hyperion will be successful in completing definitive agreements and hence proceeding with their collaborative efforts . Often, but not always, forward-looking information can be identified by the use of words such as "plans", "expects", "is expected", "budget", "scheduled", "estimates", "continues", "forecasts", "projects", "predicts", "intends", "anticipates" or "believes", or variations of, or the negatives of, such words and phrases, or state that certain actions, events or results "may", "could", "would", "should", "might" or "will" be taken, occur or be achieved. This information involves known and unknown risks, uncertainties and other factors that may cause actual results or events to differ materially from those anticipated in such forward-looking information. Factors that could cause actual results to differ materially from those anticipated in these forward-looking statements include risks associated with: permitting and developing the Titan Project; exploration results not meeting expectations on the Titan Project; commodity prices; the Titan Project never going into production; legal challenges and injunctions; processing difficulties and upsets; available

supplies of Monazite; the ability of the White Mesa Mill to produce REE carbonate to meet commercial specifications on a commercial scale at acceptable costs; the ability of Neo to separate REE carbonate to meet commercial specifications on a commercial scale at acceptable costs; market factors, including future demand for REEs; and the ability of Energy Fuels and Hyperion to finalize definitive agreements. Forward-looking statements contained herein are made as of the date of this news release, and Energy Fuels and Hyperion disclaim, other than as required by law, any obligation to update any forward-looking statements whether as a result of new information, results, future events, circumstances, or if management's estimates or opinions should change, or otherwise. There can be no assurance that forward-looking statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, the reader is cautioned not to place undue reliance on forward-looking statements. Energy Fuels and Hyperion assume no obligation to update the information in this communication, except as otherwise required by law.

Competent Persons Statement

*The information in this announcement that relates to the Titan Project Exploration Results is extracted from Hyperion's ASX Announcements dated 10 March 2021 and 7 January 2021 ("**Original ASX Announcements**") which are available to view at Hyperion's website at www.hyperionmetals.us. Hyperion confirms that a) it is not aware of any new information or data that materially affects the information included in the Original ASX Announcements; b) all material assumptions included in the Original ASX Announcements continue to apply and have not materially changed; and c) the form and context in which the relevant Competent Persons' findings are presented in this report have not been materially changed from the Original ASX*

Announcements.