American Rare Earths Defines Wyoming-Led Pilot Plant Pathway to Accelerate Pre-Production Rare Earth Oxide

written by Raj Shah | April 9, 2026

April 9, 2026 (Source) – American Rare Earths (**ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) ("ARR" or the "Company")** is pleased to announce the next stage in its accelerated pilot plant program for the American Rare Earths Halleck Creek Project in Wyoming, with initial processing to be undertaken in Wyoming through DISA Technologies ("DISA") and Western Research Institute followed by final stage hydrometallurgical processing and oxide separation at the Saskatchewan Research Council ("SRC") in Saskatoon, Saskatchewan, Canada. The Company has executed agreements with Western Research Institute, DISA and SRC to provide mineral processing activities at their respective locations.

Building on the pilot plant pathway announced on April 1, 2026[1], the Company has now further defined an execution plan that keeps the front end of the pilot plant processing in Wyoming, close to the Halleck Creek ore source and the Company's operating base, while leveraging a proven downstream facility at SRC to accelerate the production of high purity separated rare earth oxide.

The pilot plant program has been structured in three stages: milling and sizing; mineral separation and concentration; and leaching, impurity removal and oxide refining. The first two stages will be undertaken in Wyoming, with milling and sizing at Western Research Institute in Laramie, Wyoming and mineral

separation and concentration at DISA’s facilities in Casper, Wyoming.

The Company will process ore which has already been extracted from the American Rare Earths Halleck Creek site and stockpiled in Laramie.

At DISA’s Casper facility, the pilot plant will utilize DISA’s patented High-Pressure Slurry Ablation (HPSA) technology to enhance mineral liberation at coarser particle sizes, followed by the use of the GradePro reflux classifier and Induced Roll Magnetic Separators to perform primary mineral separation and secondary concentration, producing an allanite-rich mineral concentrate for final treatment.

The final stage of the pilot plant program will be undertaken by SRC in Saskatoon, where the mineral concentrate generated in Wyoming will be processed through leaching, impurity removal and oxide refining to produce high purity separated rare earth oxide. SRC and the Company’s engineering consultants, Tetra Tech, will engineer this stage of the pilot plant based on the PFS flowsheet.

SRC has extensive rare earth metallurgical experience and has the facilities to process the mineral concentrate from Halleck Creek. The Company notes that the SRC facility selected for this work is almost identical in process configuration, albeit on a smaller scale, to the type of downstream processing facility American Rare Earths intends to construct in Wyoming as Halleck Creek advances toward commercial development. The data generated during this pilot campaign will be used to further develop the necessary design criteria for the advancement of the commercial plant and mine.

As previously announced the Company has engaged Jaye T. Pickarts, P.E. to lead the pilot plant process, bringing deep,

U.S.-based rare earth and project development experience to this critical next phase.

Mr. Pickarts is a metallurgical engineer and Registered Professional Engineer with more than four decades of experience in mine development, mineral processing and environmental compliance, including leading roles in rare earth demonstration plants and Wyoming-based permitting and operations. In prior roles, including a senior role in the engineering firm Knight Piesold, he has overseen the design, construction and commissioning of rare earth pilot and demonstration facilities, as well as multiple technical studies advancing projects from scoping through feasibility. His background in both flowsheet development and practical plant execution will be applied to integrate and de-risk the Halleck Creek pilot circuit.

Mark Wall, CEO of American Rare Earths, said:

“This is a massive step forward for the Company. The pilot plant and production of pre-production rare earth oxide were previously expected to take several years. This defined pilot pathway now materially shortens the timeline and positions the Company to deliver outcomes within months. We are laser-focused on accelerating the largest United States domestic resource of total rare earth elements towards production.”

By combining Wyoming-based front-end processing with proven downstream refining infrastructure, ARR expects to materially shorten the timeline to produce pre-production rare earth oxide, validate the broader process flowsheet and generate material for downstream evaluation and strategic engagement.

The Company believes this staged pilot approach materially de-risks execution by using available facilities, specialized operators and installed or ordered equipment, while preserving the strategic objective of developing a full Wyoming-based rare

earth project over time.

This release was authorized by the Board of American Rare Earths.

Investors can follow the Company's progress at www.americanree.com

About American Rare Earths Limited:

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) is a critical minerals company at the forefront of reshaping the U.S. rare earths industry. Through its wholly owned subsidiary, Wyoming Rare (USA) Inc. ("WRI"), the company is advancing the Halleck Creek Project in Wyoming—a world-class rare earth deposit with the potential to secure America's critical mineral independence for generations. Located on Wyoming State land, the Cowboy State Mine within Halleck Creek offers cost-efficient open-pit mining methods and benefits from streamlined permitting processes in this mining-friendly state.

With plans for onsite mineral processing and separation facilities, Halleck Creek is strategically positioned to reduce U.S. reliance on imports—predominantly from China—while meeting the growing demand for rare earth elements essential to defense, advanced technologies, and economic security. As exploration progresses, the project's untapped potential on both State and Federal lands further reinforces its significance as a cornerstone of U.S. supply chain security. In addition to its resource potential, American Rare Earths is committed to environmentally responsible mining practices and continues to collaborate with U.S. Government-supported R&D programs to develop innovative extraction and processing technologies for rare earth elements.

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[1] Refer ASX announcement dated 1 April 2026