

USA Rare Earth Reports Significant Progress at Its Round Top Mountain Heavy Rare Earth / Lithium / Critical Minerals Project in Texas and at Its Critical Minerals Processing Facility in Colorado

written by Igor Makarov | August 2, 2021
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- **Site Preparation for Round Top Demonstration Plant in Progress**
- **Successful Separation of Round Top and Third-Party Materials**
- **Phase II Expanded Critical Minerals Processing Facility Operational in August**

USA Rare Earth LLC, the operator and owner of 80% of the Round Top (“Round Top”) Heavy Rare Earth, Lithium and Critical Minerals Project in Hudspeth County, Texas, together with its joint venture partner Texas Mineral Resources Corp (OTCQB: TMRC), is pleased to announce significant progress at Round Top and its Rare Earth & Critical Minerals Processing Facility in Wheat Ridge, Colorado.

“We are excited by the progress at Round Top and at our processing facility,” said Pini Althaus, CEO of USA Rare Earth.

“The team has achieved important milestones as we build a resilient, long-term critical minerals supply chain that is totally independent of China.”

Mr. Althaus added, “The electric vehicle industry faces an enormous challenge to secure resilient supply chains required to meet electrification targets. We have positioned USA Rare Earth to be an important part of the solution, combining downstream processing capabilities, including permanent magnet manufacturing, with a rich endowment of heavy rare earths at Round Top, including dysprosium and terbium that are essential for sintered permanent rare earth magnets for high temperature applications such as large, higher performance electric motors. In addition to the processing of materials from Round Top, we have also focused our efforts on processing third-party materials, as the US supply chain will require materials from countries like Australia and Canada.”

Round Top Mountain

Round Top Mountain, located in Hudspeth County, Texas, is a large, polymetallic deposit comprising heavy rare earths, lithium, and other critical minerals that are essential for the green technology revolution and other advanced technologies. The project design includes an open-pit mine, crushing, and conventional heap leach. The leach solution will be processed through combination of membrane concentration/impurity removal and continuous ion exchange/chromatographic extraction, separation, and purification of rare earths and other critical minerals.

USA Rare Earth recently acquired additional surface land for construction of a Demonstration Facility that will provide support to the final design and regulatory review, and process representative material for evaluation by prospective customers.

Following receipt of its Construction Stormwater permit, USA Rare Earth has completed the first phase of its stormwater management plan and initiated site preparation for a laydown area for the bulk sample which will be processed through the Demonstration Facility.

In addition, USA Rare Earth's environmental team has completed important environmental baseline studies, including:

- Threatened and Endangered Species Report – showed no presence of threatened and endangered species or habitat likely to support threatened and endangered species
- Jurisdictional Waterway Report – showed no presence of jurisdictional waterways.
- Cultural Resources Review – initial surveys have confirmed no presence of cultural resources within the project area. USA Rare Earth is conducting a more detailed survey this summer.
- Phase I Environmental Site Assessment – found no evidence of past or present contamination or hazardous spills on the project site and recommended no further study.

Round Top Leach Testing

Continuing leach testing of surface samples and drill chips is confirming rare earth recovery of 85%-plus; an improvement on the assumptions in the 2019 Preliminary Economic Analysis (PEA). These results are extremely encouraging. An extended leach program has been awarded to a commercial laboratory to evaluate additional opportunities to optimize the leach process, including a focus on lithium.

Downstream Processing

USA Rare Earth's Critical Minerals Processing Facility in Wheat Ridge, Colorado has successfully completed its Phase I program,

separating the various coproducts and byproducts at Round Top and separating individual rare earth elements from both Round Top and third-party rare earth feedstock, which is a significant milestone not only for the Company, but also for project owners seeking alternative processing solutions to China.

The first phase comprising a single pass through the ion exchange chromatographic columns has achieved total rare earth (TRE) purity (including yttrium) of better than 99% and target rare earth content of more than 99.5% of TRE, which is consistent with commercial standards.

Phase II, scheduled to commence by early August, will involve larger volumes of feedstock from Round Top and third-party suppliers. An initial objective will be to precipitate high purity separated rare earth oxides. To facilitate both the larger volumes of feedstock and third-party materials, the company has expanded the facility in Wheat Ridge.

Future Milestones

The primary focus is to complete the Preliminary Feasibility Study (PFS) which USA Rare Earth intends to have summarized under the US Securities and Exchange Commission's new SK-1300 reporting guidelines. During preparation of the SK-1300 report, technical work will proceed seamlessly to the Definitive Feasibility Study and Front-End Engineering and Design.

The Company will continue to explore additional financing as required with its advisors, Goldman Sachs and Bank of Montreal.

About USA Rare Earth, LLC

USA Rare Earth, LLC owns an 80% operating joint venture interest in the Round Top Heavy Rare Earth and Critical Minerals Project located in Hudspeth County, West Texas. Round Top hosts a wide

range of critical heavy rare earth elements, high-tech metals, including lithium, gallium, zirconium, hafnium and beryllium. The Preliminary Economic Assessment (PEA, dated August 16, 2019) projects a pre-tax net present value using a 10% discount rate of \$1.56 billion based on a 20-year mine plan that is only 13% of the identified measured, indicated and inferred resources. The PEA estimates an internal rate of return of 70% and average annual net revenues of \$395 million a year after average royalties of \$26 million a year payable to the State of Texas. Based on the cost estimates set forth in the PEA, Round Top would be one of the lowest-cost rare earth producers, and one of the lowest cost lithium producers in the world.

The Round Top Deposit hosts 16 of the 17 rare earth elements, plus other high-value tech minerals (including lithium), including 13 of the 35 minerals deemed “critical” by the Department of the Interior and contains critical elements required by the United States, both for national defense and industry. Round Top is well located to serve the US internal demand. In excess of 60% of materials at Round Top are expected to be used directly in green or renewable energy technologies. In 2020 USA Rare Earth opened a rare earth and critical minerals processing facility in Wheat Ridge, Colorado and in April 2020 USA Rare Earth acquired the neodymium iron boron (NdFeB) permanent magnet manufacturing system formerly owned and operated in North Carolina by Hitachi Metals America, Ltd.

For more information about USA Rare Earth, visit www.usare.com

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