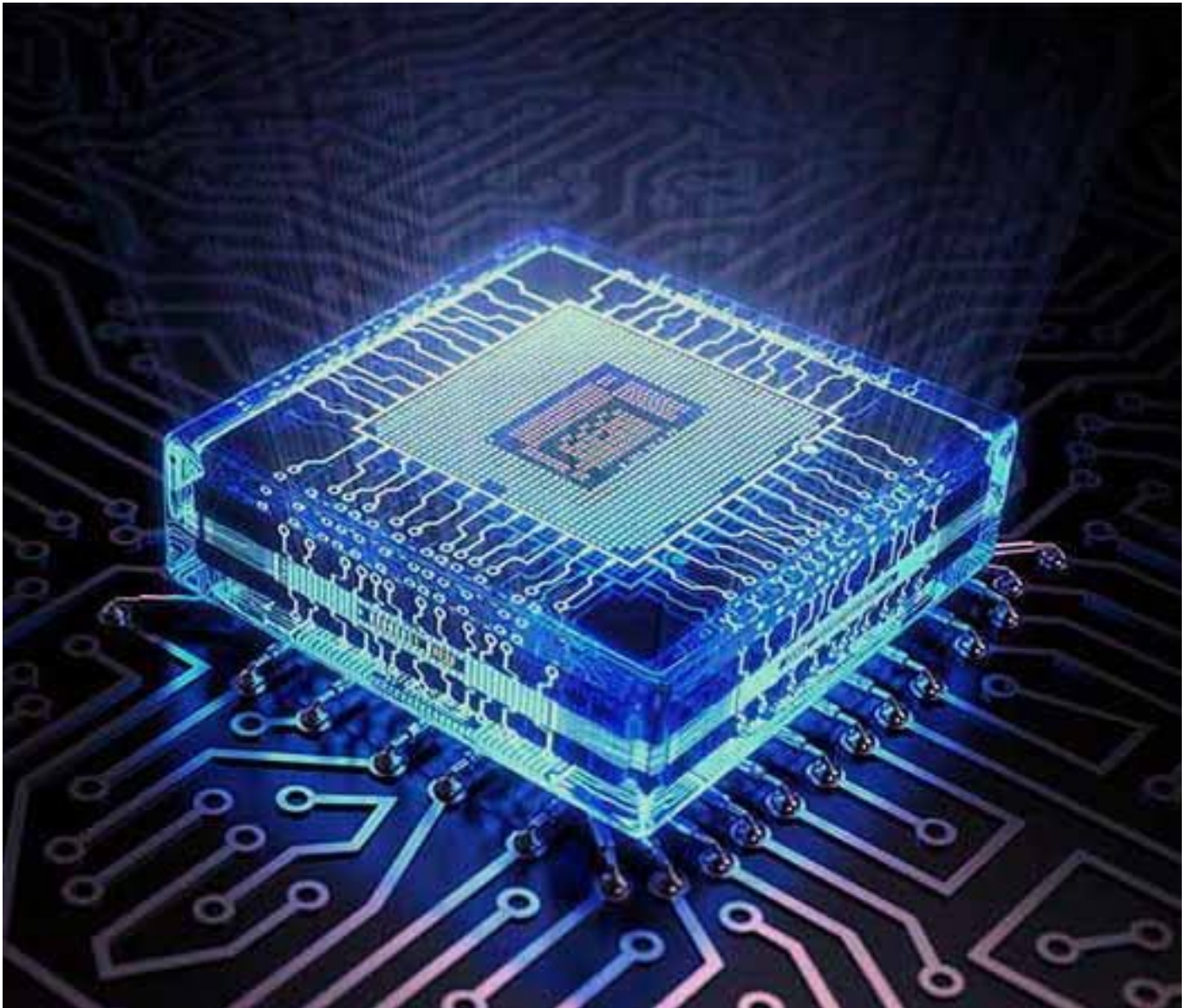


NEWS | TECHNOLOGY

Ramaco Resources and Bedrock Semiconductor Explore Domestic Gallium Supply for Advanced GaN Devices

Non-binding MOU outlines potential supply relationship linking Ramaco's Wyoming Brook Mine critical-mineral project with Bedrock's gallium nitride semiconductor technology for AI data centers, EVs and industrial applications.

By **Ankit Kankar** | September 12, 2026



Picture Courtesy | Public Domain

Ramaco Resources, Inc. ("Ramaco" or the "Company") announced that it has executed a non-binding memorandum of understanding ("MOU") with Bedrock Semiconductor Inc. ("Bedrock"). The MOU confirms potential strategic relationships involving critical minerals from Ramaco's exploratory Brook Mine rare earth and critical-mineral project in Wyoming (the "Brook Mine").

Bedrock is a Pennsylvania-based corporation engaged in the development, manufacturing, and commercialisation of gallium nitride (GaN) semiconductor materials and device technologies. Their technology for high-voltage GaN-on-GaN power devices is intended to transform energy efficiency and performance for AI data centres, electric vehicles, renewable energy and industrial power

systems. Under the MOU, Ramaco and Bedrock agree to negotiate a supply of gallium feedstock or other essential elements from the Brook Mine project. The contemplated relationship is intended to support the development of a resilient, secure, and domestic supply chain for gallium-based semiconductor devices starting from the raw materials.

The MOU is non-binding, and any future supply or offtake arrangements will be subject to the completion of due diligence, negotiation and execution of definitive agreements, successful development of the Brook Mine project, and other applicable conditions.

"It is important to Ramaco to remain aligned with the technologies that will shape the next generation of gallium devices and semiconductor manufacturing. Bedrock represents the type of innovative company driving future demand for ultra-high-purity gallium materials, and this MOU displays how Brook Mine critical minerals can support those emerging applications.

By combining Ramaco's potential domestic resource base with Bedrock's expertise in advanced gallium nitride materials and high-performance semiconductor technologies, we believe this proposed relationship could help strengthen and diversify the supply of materials that are increasingly critical to the U.S. defence, electronics and semiconductor industries," said Randall Atkins, Chairman and CEO of Ramaco Resources.

"Bedrock's GaN substrates and GaN-on-GaN devices require a lot more gallium than GaN devices grown on silicon or silicon carbide substrates. But currently over 95% of gallium is produced in China. Developing a supply relationship with Ramaco is important for Bedrock to be able to source gallium domestically. Fortunately, Ramaco's Brook Mine is expected to meet Bedrock's demand for gallium for decades to come," said Troy Baker, CEO of Bedrock Semiconductor Inc.

Read online: <https://worldbusinesswatch.com/news/13/22/ramaco-resources-and-bedrock-semiconductor-explore-domestic-gallium-supply-for-advanced-gan-devices.html>

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