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PREMIUM LIFESTYLE

Challenging China, Graphite Production Returns to US, Revives New York Mining Town

A century-old mine and mill in rural St. Lawrence County will be producing concentrates for U.S. manufacturers—now totally reliant on imports—by year's end.



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By John Haughey | November 19, 2025 Updated: November 19, 2025

FOWLER, N.Y.—A fierce wind is slinging sleet and forcing 30-foot hemlocks to genuflect in its gusts this gray, cold November morning, but Joel Rheault is

enjoying a warm and fuzzy moment atop a dynamited blast bowl.

Below, a bulldozer is churning through newly dredged soil and shoving boulders aside in an open pit burrowed into the sandy, finely ground waste tailings from the nearby zinc mine.

“Drilling and blast rocking,” Rheault, vice president of operations for Titan Mining Corporation, said. “It’s a beautiful thing.”

The “beautiful thing” taking shape is Titan Mining Corporation’s \$360 million Kilbourne Graphite Project within Empire State Mines’ century-old zinc mine and mill, a nationally vital venture in the United States’ drive to develop a domestic manufacturing supply chain free of China’s mineral market manipulation that could revitalize New York’s rural St. Lawrence County, where small towns with proud mining heritages have languished for decades.

Graphite is among 54 commodities [deemed](#) “essential to economic or national security” by the Department of the Interior’s Geological Survey. In 2022, the United States was 100 percent import-reliant for graphite, along with 11 other critical minerals. China-based processors control at least 75 percent of the global market for at least 30 of these commodities.

“As a critical mineral, graphite has not been produced in the United States for more than 70 years,” Rheault told The Epoch Times. “We aim to be first in the market to do that.”

Graphite’s high temperature tolerance and electrical conductivity make it ideal for lithium-ion batteries, industrial lubricants, and fire-resistant, lightweight machines and parts across multiple industries.

As of 2024, no natural graphite was [produced](#) in the United States, according to the 2025 U.S. Geological Survey. Domestic manufacturers rely on foreign sources and imported more than 60,000 tons that year. Between 2020 and 2023, 43 percent of U.S. graphite imports came from China, which produced 78 percent of graphite consumed worldwide last year.

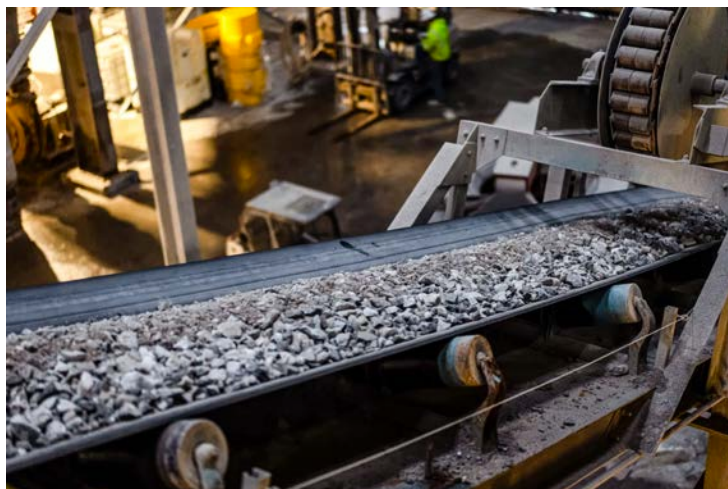
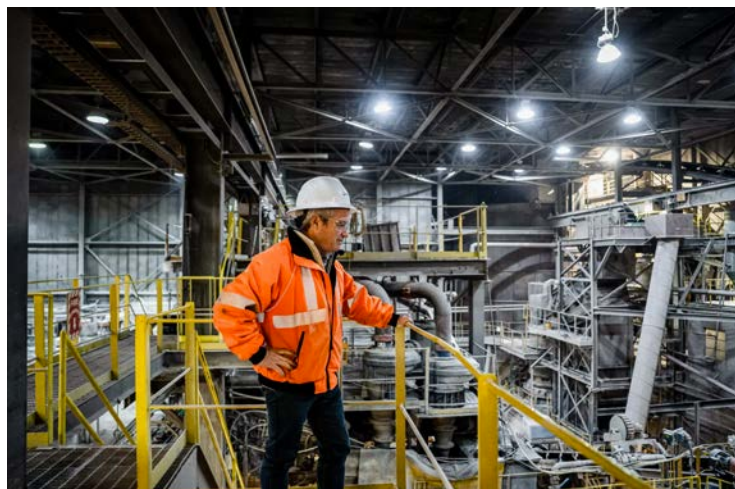
Increasing reliance on imported critical minerals largely caused by a lack of “mid-stream” capacity—mills, smelters, refineries—in

43%

Between 2020 and 2023, 43 percent of U.S. graphite imports came from China.

markets dominated by China has been a concern for decades. Since President Donald Trump's November 2024 reelection, securing domestic supply chains has garnered "a lot more attention," Rheault said.

Titan's planned 40,000-ton-a-year [operation](#) is one of at least five graphite projects being developed in the United States under Trump administration inducements, according to a [report](#) from the Colorado School of Mines.



(Left) Joel Rheault, vice president of operations at Empire State Mines, gives a tour in Gouverneur, N.Y., on Nov. 6, 2025. (Right) Empire State Mines, a Titan Mining Corp. company, in Gouverneur, N.Y., on Nov. 6, 2025. The \$380 million Kilbourne Graphite Project at the century-old zinc mine and mill is part of the United States' effort to build a domestic supply chain less dependent on China. Madalina Kilroy/The Epoch Times

But Empire State Mines' Kilbourne Graphite Project has an advantage over the others.

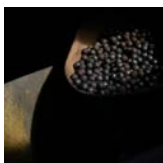
The 800-acre open pit mine is within an existing zinc mine's footprint and is less than a mile from a mill, meaning little additional infrastructure is needed, according to Titan.

"Existing advanced mining process—it's all here already," Rheault said. "We will be making graphite concentrate before the end of the year."

Zinc is also among the survey's 54 critical minerals. In 2024, U.S. manufacturers imported 73 percent of zinc they used, despite that domestic mines exported 580,000 tons of ore to be processed, according to a May [analysis](#) by the Center for Strategic and International Studies.

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Rheault arrived at Empire State Mines in 2018 to “restart the zinc play” following Titan’s 2016 purchase of the shares of the Balmat Holding Corporation. Titan, which is a part of Toronto-based Augusta Group, led by Canadian investor Richard Warke, changed the name to Empire State Mines in 2017.

A Canadian citizen “working on a green card,” Rheault has managed mines across Canada, the United States, South America, and Europe.

“I’ve been at this for 40 years, almost,” he said.

As many as six mines across a 30-mile swath of St. Lawrence County have produced zinc since 1915, with at least one “continuously operating from the 1930s to 2001,” Rheault said.

The mines were in “care-and-maintenance mode” for more than a decade when Rheault arrived to reopen them.

“The resource was left in the ground until somebody could make it a viable business,” he said. “That somebody was Titan.”



(Top) The open pit at Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Titan's planned 40,000-ton-a-year operation is among at least five U.S. graphite projects moving forward under Trump administration incentives. (Bottom Left) Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. (Bottom Right) The price of zinc is displayed at the Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Titan says the project's proximity to the existing zinc mine and mill means little additional infrastructure is needed. Madalina Kilroy/The Epoch Times

Titan received a \$15.8 million Export-Import Bank of the United States loan to renew extraction for six to seven more years, he said, although a parallel focus was “exploration and development” of “other zinc ore bodies” across the 120,000 acres on which Titan owns mineral rights.

In 2023, geologists led by Empire State Mines Exploration Manager Connor Messler were analyzing rock in 45 diamond drill holes across 42,000 feet of drilling and realized they contained graphite.

In December 2024, Titan [estimated](#) there were 22 million tons of ore averaging nearly 3 percent graphite—enough for 650,000 tons of the critical mineral.

Rheault said the Trump administration’s critical minerals push is fostering a domestic mining revival.

“It’s great they recognize that if you don’t have control of your own resources, you don’t control your destiny,” he said.

Trump issued two Day One executive [orders](#), “Declaring a National Energy Emergency” and “Unleashing American Energy,” to “ensure a more secure, predictable, affordable supply of critical minerals,” according to the Department of Energy, followed by a March executive [order](#) requiring agencies to streamline permitting. In July, he placed a 93.5 percent tariff on graphite from China.

On Oct. 7, the Export-Import Bank expressed “financing interest” of up to \$120 million to [subsidize](#) construction of Titan’s graphite project as “a strategic U.S. critical-minerals asset aligned with national priorities that will create high-quality American jobs and strengthen U.S. supply chain resilience.” On Oct. 14, the Federal Permitting Improvement Steering Council [qualified](#) the project for accelerated regulatory review.

An updated technical report is expected soon, Rheault said, although the loan, the relaxed permitting, and its Nov. 3 [listing](#) on the New York Stock Exchange are spurring investment.

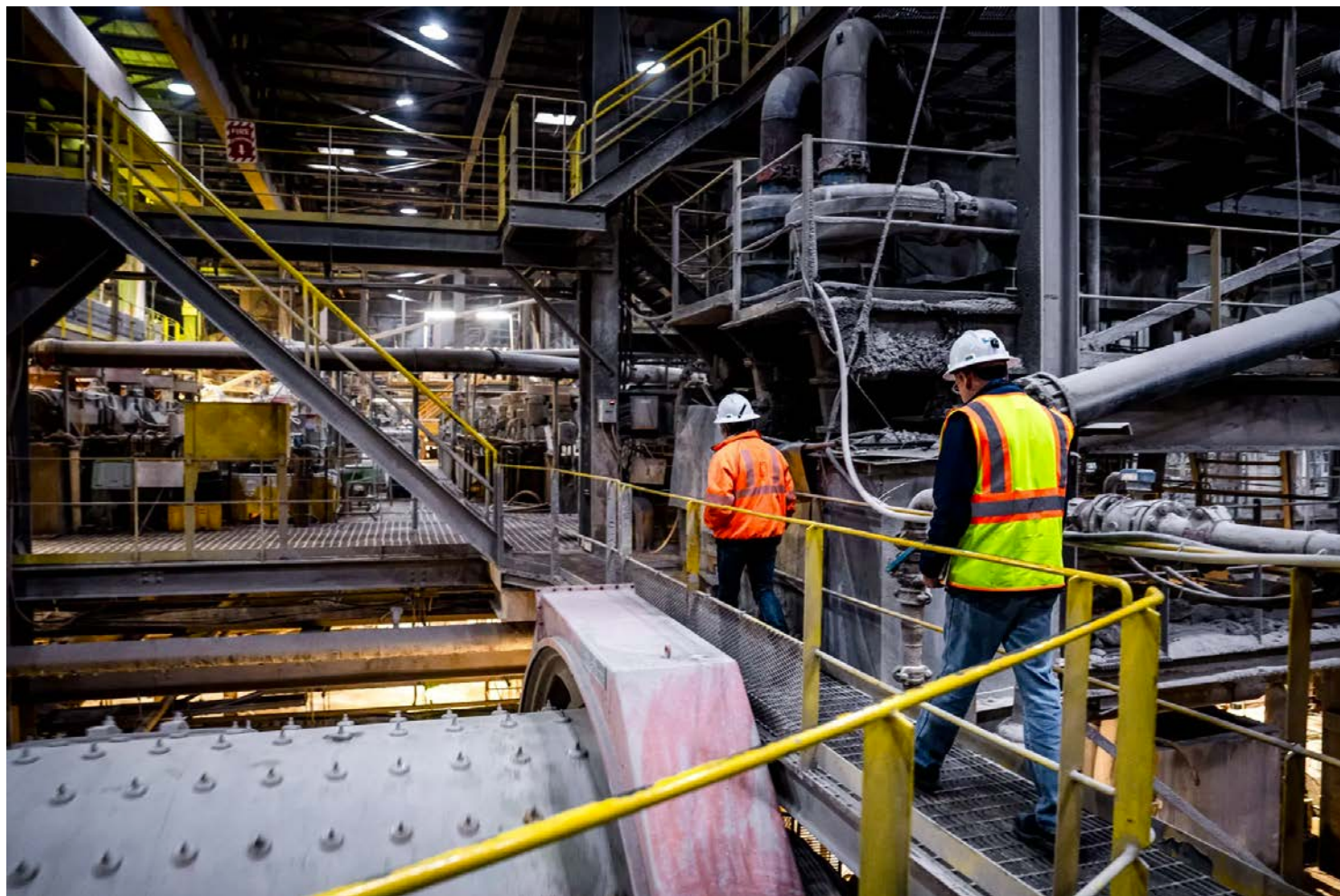
“We’re seeing a lot of interest,” he said.

The loan “has greatly de-risked” investing in the project.

650K
TONS

Titan says the deposit could yield about 650,000 tons of graphite, based on a December 2024 estimate of 22 million tons of ore averaging nearly 3 percent graphite.





(Top) Workers at the Kilbourne Graphite Project in Gouverneur, N.Y., on Nov. 6, 2025. (Bottom) Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. In December 2024, Titan estimated the site contained 22 million tons of ore averaging nearly 3 percent graphite—enough for about 650,000 tons of the mineral. Madalina Kilroy/The Epoch Times

Empire State's Empty Quarter

This is welcome national news and front-page material in St. Lawrence County, a sparsely dotted sprawl along the St. Lawrence River between the Adirondacks and Lake Ontario that is larger than both Rhode Island and Delaware.

“We’re a large rural county with a lot of natural resources, minerals, timber, agriculture, dairy,” Patrick Kelly, executive director of the St. Lawrence County Industrial Development Agency, told The Epoch Times.

The county, which is New York’s largest, includes an Amish community with horse-drawn buggies trotting along backroads.

“This is an opportunity to support an industry that’s been so important for 100 years in the county with new growth, new development, in combination with a company with the right business model at a time when the geopolitical situation aligns in a way that, hopefully, is beneficial for us,” he said.

St. Lawrence County has stagnated for decades. According to U.S. Census [records](#), there were more people living here in 1960—111,200—than the 107,733 in 2022. Enrollment at many of its school districts has declined since 1990.



High quality jobs in rural, somewhat economically disadvantaged counties, are absolutely important.

Patrick Kelly, executive director, St. Lawrence County Industrial Development Agency

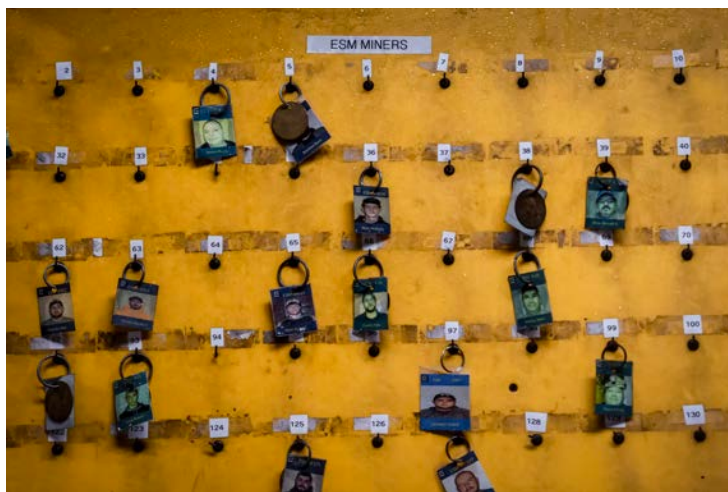
Fowler Town Supervisor Ricky Newvine said the population declined because people are “sick of New York taxes,” which only get higher when businesses leave.

When Newvine was first elected in 1990, property taxes were “very low.”

“Much of the homeowners’ share was paid by commercial landowners, but it’s around 50–50 now,” he told The Epoch Times.

“There are fewer businesses in town. We’ve lost three or four over the years, and it makes a big difference.”

Before Empire State Mines reopened in 2018, a few dozen employees were maintaining the property. Rheault expanded staff to 90 and has added 58 new hires so far in 2025, including 30 between July and September. The workforce now stands at 165, with a \$16 million annual payroll.



(Top Left) Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. (Top Right) Workers at the Kilbourn Graphite Project in Gouverneur, N.Y., on Nov. 6, 2025. (Bottom Left) Workers at the Kilbourn Graphite Project in Gouverneur, N.Y., on Nov. 6, 2025. (Bottom Right) Empire State Mines, a Titan Mining Corporation Company in Gouverneur, N.Y., on Nov. 6, 2025. Madalina Kilroy/The Epoch Times

“That money travels through the regional economy,” Kelly said. “You see it in restaurants, at car dealerships. You see it in school enrollments, in the payer mix at local hospitals. Those are all hidden benefits. High quality jobs in rural, somewhat economically disadvantaged counties, are absolutely important.”

Ryan Powers, who owns Fun Unlimited, a snowmobile and all-terrain vehicle dealership near the mine, said he has seen an increase in sales of “recreational stuff” to young people who work at the mine.

“That’s a very healthy job,” he told The Epoch Times. “I hear them every morning going to work—4:30, 5 a.m. My biggest complaint? Get the speed limit lowered out here.”

Empire State Mines spans the town of Fowler, population 2,145, and the village of Gouverneur, population 3,579, according to World Population Review.

The latter straddles Route 11 and is divided by the Oswegatchie River, six miles from the mine. It has two grocery stores, several restaurants, and one hotel, but “calling it a ‘commercial center’ is being gracious,” Gouverneur Mayor Ron McDougall told The Epoch Times.

Titan’s graphite discovery “is the best potential economic news [in Gouverneur] in quite some time,” he said.

“We ought to thank the geologists,” said McDougall, who has acted as a board member for the Jefferson, Lewis, and St. Lawrence Counties Central Trades and Labor Council since the 1980s. “We ought to give them a memorial. This is a big deal. It creates a lot of economic opportunity for our people.”





(Top and Bottom) Joel Rheault, vice president of operations at Empire State Mines, speaks during an interview at Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Rheault said reopening the operation could boost not only the mining sector, but also the regional economy. Madalina Kilroy/The Epoch Times

‘This Is a Mining Town’

The Adirondacks’ western flanks include some of the nation’s best fishing and hunting and the largest old-growth hardwood forests east of the Mississippi, but they can be sparse territories for development, McDougall said.

Titan has exceeded expectations with its zinc mine restart and its graphite discovery, Newvine said.

“They said 10 to 15 new jobs, now saying more than 50,” he said.

Rheault said nearly doubling the workforce over the past few years “means a lot for this small town.” He isn’t making promises about “bringing it back to its heydays of the ’60s and ’70s, but there’s potential to be stable and profitable.”

Local job-seekers have an ally in Empire State Mines Human Resources Manager Clara Cummings, a lifelong Gouverneur resident whose family once owned the village's only motel.

"This is a mining town," Cummings said, and that comes with ups and downs.

"When I grew up, St. Lawrence County was one of the poorest counties in the state."

Clara Cummings, Empire State Mines human resources manager and lifelong Gouverneur resident, takes pride in hiring local high school graduates for the mines, often from families she's known all her life.

Her focus is on keeping as much of the mine's payroll local as possible, she told The Epoch Times.

Cummings takes pride in hiring local high school graduates, often from families she's known all her life.

"To me, it's very rewarding to offer these jobs to kids I know—kids my kids grew up with—18-year-olds out of high school," she said.

Among these "kids" is Cayden Stowell, 23, who was hired in November 2021 as surface labor and is now an excavator operator and fourth-generation miner working with his father, uncle, and twin cousins.

This wasn't his plan. A star Gouverneur High running back, in 2019 he averaged nearly 10 yards per carry, scored 17 touchdowns, and was ranked among the state's top prep halfbacks.

"I was trying to get a football scholarship, applying to lots of colleges," Stowell told The Epoch Times. "My mom was sticking [responses] in a junk drawer. I got one from Norwich University, but by the time I saw it, it was too late."



(Left) Clara Cummings, Empire State Mines human resources manager, speaks during an interview at Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Cummings said her focus is on keeping as much of the mine's payroll local. (Right) Cayden Stowell, fourth-generation miner at the Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Madalina Kilroy/The Epoch Times

He said the teamwork skills he learned in football are now being applied in “a different world, 5,000 feet below” and “a mile out” from the mine shaft.

“One goal—every step aligns with it,” he said. “Everyone’s on the same page, but in different places.”

Empire State Mines’ miners see themselves as part of a bigger team working to build critical mineral supply chains impervious to China’s market manipulations.

“It’s important not just for us but for the country,” Stowell said.

Possible 3rd Act

Titan’s zinc mill’s grated iron walkways and ladders built around spiked-wheel grinders that feed crushed rock into chemical flotation tanks are reminiscent of an aircraft carrier engine room.



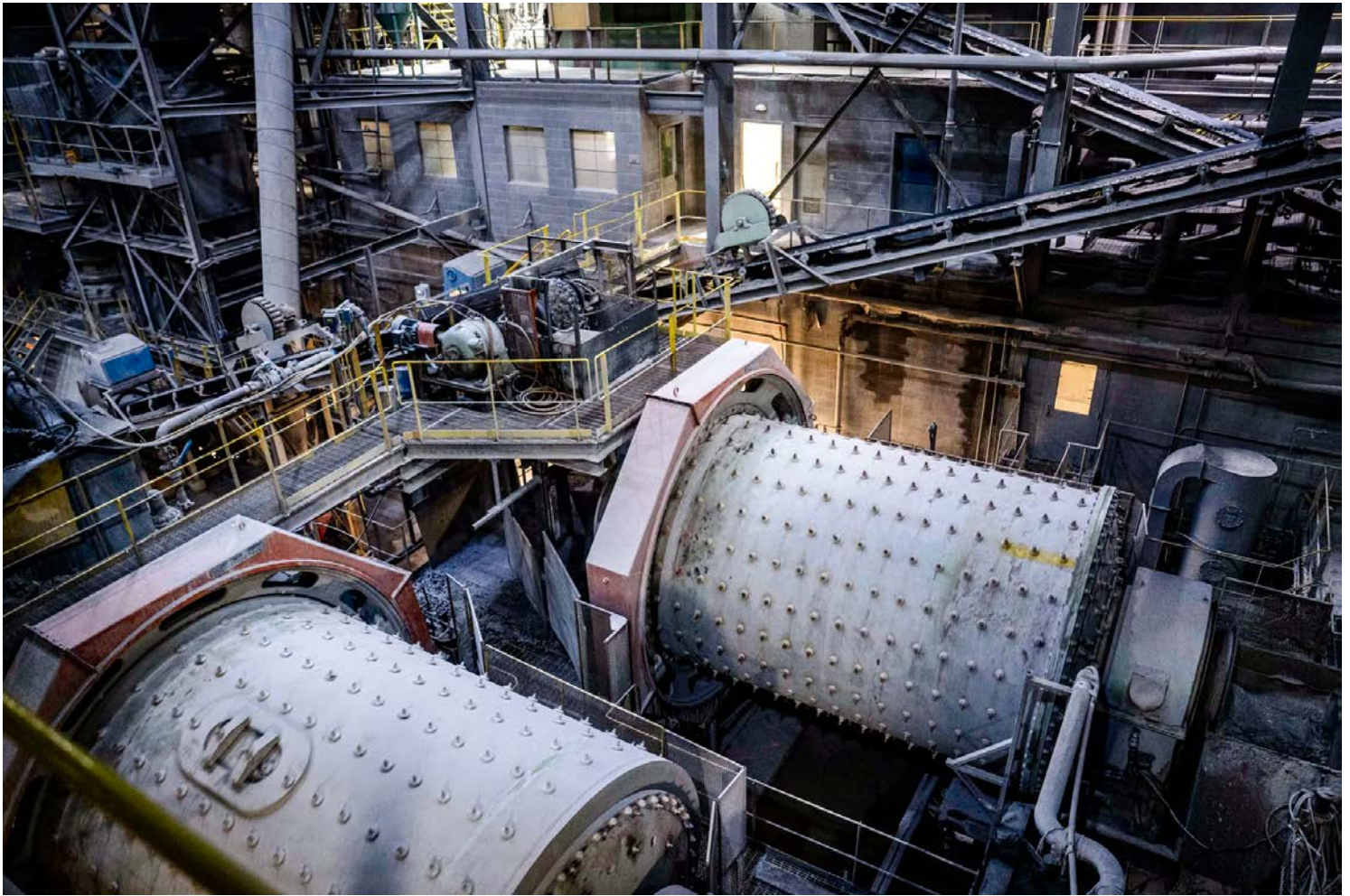
The EV market is growing. It's not going to shrink, it's going to grow. Electrification will need infrastructure. We're part of that infrastructure story.

Joel Rheault, vice president of operations, Titan Mining Corporation

Grinders, tanks, and machinery are under tarp in an area within the plant, and the partially assembled graphite mill will eventually produce flake graphite crafted to manufacturers' specifications, Rheault said.

The mill can turn ore into metal and ultimately ingots, he said.

"Higher purity products," such as batteries for electric vehicles (EVs), require "tight specs" and "years of tests," Rheault said.





(Top) Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Grated iron walkways and ladders encircle spiked-wheel grinders that crush rock before it moves to chemical flotation tanks, evoking an engine-room layout.

(Bottom) Empire State Mines in Gouverneur, N.Y., on Nov. 6, 2025. Madalina Kilroy/The Epoch Times

“The EV market is growing. It’s not going to shrink, it’s going to grow,” he said.
“Electrification will need infrastructure. We’re part of that infrastructure story.”

In an adjacent warehouse, ore is stockpiled.

“We’re getting ready to feed it into the demonstration plant,” he said. “People are contacting us for samples.”

Locals are watching closely.

“There’s a lot of things yet to be done before this becomes a reality,” Newvine said. “But is it good? Yeah.”

McDougall said local officials hope the Pentagon becomes a primary customer and have little doubt the project is sustainable because former New York Gov.

George Pataki and former Speaker of the House John Boehner (R-Ohio) sit on Titan's board.

"Pataki was here," McDougall said. "He couldn't pronounce Gouverneur."

There is potential that Empire State Mines could produce a third critical mineral with Titan's Oct. 20 [revelation](#) that germanium has been "identified in [the] existing zinc-processing circuit," requiring no new mining.

Germanium is essential to semiconductors, fiber optics, and many military technologies. U.S. manufacturers rely on imports; 51 percent of germanium [came](#) from China between 2020 and 2023, according to the 2025 U.S. Geological Survey. The country is the world's leading producer of germanium, according to the survey.

"A lot of testing ahead," Rheault said. "Geologists are the most optimistic people."

That optimism is spreading, McDougall said.

"When something like this happens, we're very optimistic. I feel the same way," he said.

"The exciting thing is, there's a bigger picture story here with the supply chain and with the opportunities," Kelly said. "We're looking forward with hope."

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