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An Alarming Addendum to America's Mineral Angst

A Monday Morning Musing from Mickey the Mercenary Geologist

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Today's effort is my third detailing America's reliance on foreign sources for its supply of industrial metals, minerals, and materials (**Mercenary Musings:** March 26, 2018; April 22, 2019). I also reviewed a book, *Groundbreaking! America's New Quest for Mineral Independence*" (February 4, 2019), that addresses the issue.

Subsequently to posting the latter, I spoke with the authors, Dr. Ned Mamula and Ann Bridges, about our increasing dependence on rogue countries for essential raw materials.

In my review and afterward in our discussions, I affirmed my overall agreement with their analysis and also pointed out some differences of opinion for remedying the situation.

In particular, I suggested that the three branches of the United States federal government have thrown us into this quagmire. Therefore, I do not wholly subscribe to the premise that an often antagonistic and largely unresponsive federal bureaucracy can provide the solution to America's minerals deficit. However, I do agree with their ideas that the federal level is where we must start.

As a free market capitalist and libertarian, I propose that the government's role should be limited to these tasks:

- removing land withdrawals, restoring reasonable access, resetting policy to encourage development, and revamping regulations for exploration, development, and production;
- streamlining the permitting process with hard deadlines and timely decisions;
- allowing the business of exploration and mining to operate within the context of strong environmental protection but otherwise without burdensome restrictions, capital-consuming regulations, bureaucratic delays, and frivolous lawsuits.

In my opinion, Congressional appropriation of more budgetary funds for committees, studies, grants, credits, and subsidies will not further our shared goal of American mineral independence and will only serve to deepen an already unmanageable federal debt.

The authors and I are in strong agreement that the task at hand requires involvement and support of the domestic mining industry. However, that is a big challenge in motivating an industry with little vested interest in the United States of America.

In the early 1990s, onerous government regulations, permitting delays, mineral stockpile sales, and environmental lawsuits led the American mining industry to shift focus on new opportunities outside of this country. Smelters were closed and concentrates were shipped abroad or mine-mill complexes ceased production for lack of US refining options.

Once domestic production declined, large American base metal companies were acquired by integrated multi-national miners. In the smaller cap gold sector, Canadian-based miners bought out mid-tier American gold and silver operations. Most specialty metals producers simply went out of business.

And now a very small portion of the world's mining business is actually controlled by American-based companies that mine metals, minerals, and materials in the United States. Let's compile a list of them.

First is my accounting of the major precious and base metal miners domiciled in the United States and with major production in this country:

- Of the ten largest metal mining companies by annual revenue, in eighth place is Freeport-McMoRan (FCX.NY), headquartered in Phoenix, Arizona. It is the world's largest publicly-listed copper company with significant production (plus molybdenum) in Arizona and New Mexico.
- Of the world's ten largest gold companies, the newly-combined Newmont-Goldcorp (NEM.NY) is headquartered in Denver, Colorado, USA. It produces significant gold and minor copper from mines in Nevada and Colorado.
- Of the world's 40 largest mining companies by market capitalization, three are domiciled in the US and have significant domestic production. They include the aforementioned Newmont-Goldcorp and Freeport-McMoRan and also The Mosaic Company (MOS.NY), an integrated agricultural minerals and fertilizer producer based in Plymouth, Minnesota.
- Materion Inc (MTRN.NY) is the world's primary source of beryllium from its mine located in central Utah. It is a fully-integrated beryllium miner, alloy, and materials producer.
- The Doe Run Company is a privately-held, integrated lead mining, milling, fabricating, and recycling operation in the Viburnum Trend of Missouri. By-products are zinc and copper concentrates. The company operates six mines, four mills, and a battery recycling and alloy refining plant in Missouri with lead fabricating facilities in Arizona and Washington.

Next, let's tally the domestic mid-cap miners. This once robust sector has shrunk to three public corporations and one private company over the past 30 years:

- Hecla Mining Company (HL.NY) produces base and precious metals at underground mine-mill complexes in Alaska, Nevada, and Idaho.
- Coeur Mining (CDE.NY) produces gold and silver from mine-mill complexes in Alaska, Nevada, and South Dakota.

- Compass Minerals International (CPM.NY) is a multi-national rock salt, magnesium chloride, and sulfate of potash producer. It operates mines and plants in Louisiana, Kansas, and Utah.
- Montana Resources is a privately-held copper-molybdenum mine-mill operation in Montana.

The microcap category includes the following:

- Energy Fuels Inc (UUUU.AM) operates a uranium and vanadium mill in Utah, produces uranium from ISR operations in Wyoming, and is developing underground mines in Utah and Arizona.
- UR-Energy (URG.AM) produces uranium from an ISR complex in Wyoming.
- Uranium Energy Corp (UEC.AM) owns a shuttered ISR mine with a central recovery plant in Texas and a development project in Wyoming.
- Gold Resources Corp (GORO.AM) recently commenced gold-silver production at the Isabela-Pearl mine in Nevada.
- MP Materials LLC is a privately-owned rare earth mine-mill complex at Mountain Pass in California. It was acquired out of bankruptcy from Molycorp in 2016.

The nanocap junior exploration sector is overwhelmingly headquartered in Canada but holds numerous projects in the Western US mostly geared toward gold and to a lesser extent, copper.

Barite is a critical mineral on the 2018 USGS list with significant US production. That said, we import 85% of our supplies and over 60% comes from China. Depending on demand, there are four to six operating barite mines in Nevada and one in Georgia. Owners include American-based, multi-national oil field services corporations including Baker-Hughes Inc (BHGE.NY), Halliburton (HAL.NY), and National Oilwell Varco (NOV.NY), and privately-owned, Georgia-based Chemical Products Corp. Barite is a minor part of the overall activities of the large services companies.

The authors of "Groundbreaking" draw an analogy of our minerals net import reliance to the domestic petroleum industry from the mid-1970s to the late 2000s when the United States was subject to the capricious whims of OPEC. By the 2010s, American ingenuity and technology turned former petroleum source rocks into reservoir rocks by exploiting tight shale formations via horizontal drilling and fracking.

Despite continually-rising world demand, booming US oil production now dictates the quantities that OPEC, Russia, and other exporters can pump to maintain relatively high prices and meet their internal revenue requirements. Both OPEC and Russia have set quotas and cut back production over the past two years because they cannot compete with low-cost, high demand American light crude.

However, there is a huge difference between these two businesses. A robust and independent US petroleum industry led the shale gas and shale oil revolutions from 2006 to the present. These American entrepreneurs had a vested monetary interest in domestic petroleum production and as a result, we became the world's largest gas producer in the early 2010s and the world's largest oil producer in 2017.

The capital interests for advancing American mineral production are lacking. We have few American-domiciled mining companies; most of our mineral supplies come from foreign sources; most of our domestic mineral production is controlled by foreign corporations; and US-based venture capitalists

rightfully choose the relatively unregulated Canadian stock markets to float startup exploration and mining companies.

Therefore, comparing energy to minerals is like mixing oil with water.

Now back to the topic at hand.

So what can we do to reduce our dependence on unfriendly, unstable, corrupt, and/or fascist foreign governments for essential metals, minerals, and materials supplies?

I wish there were easy answers but they simply do not exist.

We are encouraged by the current executive branch with its repeal of onerous, anti-development regulations; there is a group of politicians in control of the Senate who repeatedly introduce pro-mining legislation; and President Trump is appointing many young, conservative, pro-development judges to lifetime positions in the federal system.

On the lobbying front, the National Mining Association, the American Exploration and Mining Association, and the Women in Mining Coalition are active in Washington, D.C. These organizations are likely best-situated to push for policies of the federal government designed to reduce foreign dependence on mineral supplies. State and local associations are active where mining is a significant part of the economy.

Pro-American, pro-development, conservative, and libertarian-leaning think tanks such as The Cato Institute and the Heritage Foundation produce research and analysis that has occasionally touched on mineral policy and the current dilemma.

Section 232 petitions to address national security issues for critical minerals are making their way thru the bureaucracy in a timely fashion. Aluminum and steel trade tariffs, sanctions, and anti-dumping regulations were initiated last year. Administrative actions promoting domestic mining of uranium are expected in mid-July.

On the other hand, the United States House of Representatives is controlled by a divided Democratic party with a far-left wing that is pushing the country toward becoming even more a nanny state and part of a one-world government.

This cabal of avowed socialist politicians with their "green new deal" and NIMBY-BANANA agenda has submitted a bill to Congress that would void the Mining Law of 1872. Among its provisions: a mineral leasing system on federal lands; retroactive 4% gross royalty on existing mines; 12.5% gross royalties on new mining operations; and a sunset clause of 20 years on mining leases with requirement for continuous production after that.

With half of all federal lands already withdrawn from mineral entry, it would also give federal land managers authority to deny a permit or revoke a lease at any stage of a project and lockup even more land based on "suitability" criteria.

Although the bill has zero chance of becoming law in this session of Congress, similar attempts by Democrats have been ongoing since 1980. Passage of such draconian measures would surely destroy hard rock mining in the Western United States and result in even further American dependence on foreign mineral sources.

The United States of America became the greatest country in the world because of our individual rights and freedoms, free markets and entrepreneurial spirit, and capitalistic economic system that has fostered development and exploitation of our abundant natural resources.

We can choose to act now on the issue of foreign mineral dependence or we can choose to do nothing.

For the future of our republic, we cannot allow eco-fascists and environmental fundamentalists to stop progress and development with their horde of legal beagles funded by global socialists and supported by left-wing judges.

If that continues, a world resource war is inevitable in the coming decades.

Do you really want your children and grandchildren to exist in a centrally-planned, command economy controlled by a collective committee of Chinese communists?

Folks, our American way of life is at stake, the choice is ours, and it is now.

Ciao for now,

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The Mercenary Geologist Michael S. "Mickey" Fulp is a Certified Professional Geologist with a B.Sc. in Earth Sciences with honor from the University of Tulsa, and M.Sc. in Geology from the University of New Mexico. Mickey has 35 years of experience as an exploration geologist and analyst searching for economic deposits of base and precious metals, industrial minerals, uranium, coal, oil and gas, and water in North and South America, Europe, and Asia.

Mickey worked for junior explorers, major mining companies, private companies, and investors as a consulting economic geologist for over 20 years, specializing in geological mapping, property evaluation, and business development. In addition to Mickey's professional credentials and experience, he is high-altitude proficient, and is bilingual in English and Spanish. From 2003 to 2006, he made four outcrop ore discoveries in Peru, Nevada, Chile, and British Columbia.

Mickey is well-known and highly respected throughout the mining and exploration community due to his ongoing work as an analyst, writer, and speaker.

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