

Lack of Critical Minerals Prompts Increased Interest in U.S. Mining

by Julie Chapel, Tom Chamberlin, Robert Swiech, and Darice Henritze



Julie Chapel



Tom Chamberlin



Robert Swiech



Darice Henritze

Julie Chapel and Robert Swiech are directors in the Washington National Tax practice, passthroughs, incentives, credits, and methods group of KPMG LLP and key members of KPMG's global energy team. Tom Chamberlin is a managing director in KPMG's international tax practice and has extensive experience with the 1980 Federal Investment in Real Property Tax Act as it applies to the mining industry. Darice Henritze is a partner in international tax at KPMG, and was the former global industry lead for KPMG's global mining practice for many years.

In this article, the authors provide an overview of the growing demand for critical minerals needed to make the batteries in electric vehicles, and they examine tax issues involving common funding structures for mineral interests.

Copyright 2022 KPMG LLP.
All rights reserved.

As the world continues to move its focus to global warming solutions, the electric vehicle appears to be a clearly accepted solution to auto industry carbon emissions. What was once a futuristic idea, with zero electric car sales in 2010, is now a scarce resource in huge demand, with nearly 2.5 million EVs sold in the fourth quarter of 2021.¹ Most EV models now come with a multi-

month waiting list, something unheard of outside the exotic car market.²

As U.S. car manufacturers are expanding EV offerings and making large investments in battery manufacturing, the demand for minerals crucial for their manufacture is at an all-time high. This includes many so-called critical or rare-earth minerals, including lithium, a key element in the batteries that power EV motors, and others that are critical to the components required to produce

¹Velox.com. Catalytic converters have used minerals such as rhodium, platinum, and palladium to neutralize toxic gases emitted by burning fossil fuels.

²Mike Colias, "Looking to Buy an EV? Get on a Wait List," *The Wall Street Journal*, Mar. 28, 2022.

renewable energy solutions like geothermal, solar, wind, and hydro power solutions. Shortages of those key minerals, however, have renewed interest in mining.

I. Shortages in Critical Minerals

The Energy Act of 2020 defines “critical mineral” as a mineral, element, substance, or material that the secretary of energy determines is essential to the economic or national security of the United States, has a supply chain vulnerable to disruption, and serves an essential function in the manufacturing of a product — the absence of which would have significant consequences for the economic and national security of the United States.³

The World Bank report in 2020 highlighted 17 minerals that are essential for a clean energy transition to renewables and found that the production of minerals, such as graphite, lithium, and cobalt, could increase by nearly 500 percent to meet the growing demand.⁴ Also, the absolute amounts of aluminum and copper needed for the energy transition are significant. The report estimates that over 3 billion tons of minerals and metals will be needed to deploy wind, solar, and geothermal power, as well as energy storage.⁵

Further, on February 22 the U.S. Geological Survey released its list of 50 critical minerals — including lithium, nickel, and cobalt — that are crucial to both EVs and energy storage.⁶ In the case of lithium, recycling currently accounts for 1 percent of demand.⁷ The remaining demand must be filled through mining.

II. Legislative Solutions

Congress has attempted to address the shortage of critical minerals in key legislation. The Infrastructure Investment and Jobs Act (IIJA, P.L. 117-58), enacted in November 2021, recognizes

that critical minerals are fundamental to the economy, competitiveness, and security of the United States and states a goal for the critical mineral needs of the United States to be satisfied by minerals responsibly produced and recycled in the United States.⁸

The IIJA has several provisions designed to improve the supply chain for clean energy technologies. It creates a critical minerals subcommittee to coordinate efforts to ensure secure and reliable supplies of critical minerals to the United States and establishes an EV working group tasked with identifying areas of opportunity in research and development to improve battery manufacturing and mineral mining.

Also, the IIJA establishes an earth mapping initiative for the location of critical mineral resources; funds a facility to support energy and minerals research; funds a facility to demonstrate the commercial feasibility of a full-scale integrated rare-earth element extraction and separation facility and refinery; mandates federal agencies to complete permitting and review processes regarding critical mineral production on federal land with maximum efficiency; authorizes various grant programs and awards to support critical mineral mining, recycling and reclamation strategies, battery material processing, and the manufacturing and recycling of EV batteries; and provides loan guarantee programs for projects that increase the domestically produced supply of critical minerals.⁹

Moreover, on March 31, President Biden invoked the Defense Production Act to increase domestic production of minerals used in making EVs, such as nickel, lithium, and cobalt. The press release stated that the country depends on unreliable foreign sources for many materials necessary for transitioning to the use of renewable energy, and the act gives the Department of Defense authority to increase domestic mining and processing of these critical minerals.¹⁰

³ 30 U.S.C. section 1606(a)(3), (c).

⁴ The World Bank, “Mineral Production to Soar as Demand for Clean Energy Increases,” May 11, 2020. Current research indicates that lithium may be extracted from producing shale reservoirs.

⁵ World Bank Group, “Minerals for Climate Action: The Mineral Intensity of the Clean Energy Transition” (2020).

⁶ U.S. Geological Survey, Department of the Interior, “2022 Final List of Critical Minerals,” 87 F.R. 10381.

⁷ United Nations Environment Programme, “Recycling Rates of Metals: A Status Report” (2011).

⁸ *Id.* at section 40206.

⁹ *Id.* at sections 250006, 40201-40211, 40401.

¹⁰ Department of Defense, “Defense Production Act Title III Presidential Determination for Critical Materials in Large-Capacity Batteries,” Apr. 5, 2022.

The government's focus on increasing production has stimulated a market in the United States by investors (both domestic and foreign) intent on identifying, exploring, and exploiting these resources. Those projects will require funding to advance, and material tax issues will arise depending on the structure of the financing package.

Below we review the more common types of funding structures and highlight major tax issues that may be apply.

III. Financing for Mining Activities

As noted, growing demand creates an expectation of additional transactions involving mining interests.

Beyond the grants and loans made available in the IJA and discussed above regarding critical mineral mining and recycling, there are multiple financing options for the acquisition of mining interests, each with advantages and disadvantages.

A. Production Payments

A production payment is a right to minerals in place that entitles its owner to a fraction of production for a limited time, or until a specified sum of money or number of units of minerals has been received.¹¹ That right must be an economic interest in the mineral in place.¹² It may burden more than one mineral property, and the burdened mineral property need not be an operating interest.¹³

The characteristic that distinguishes a production payment from an overriding royalty is that a production payment is limited in time or amount so that its expected duration when it is created isn't coextensive with the producing life of the property from which it is payable.¹⁴

Production payments may be created in two ways. A production payment is retained if the owner of any interest in a mineral property assigns its interest and retains a production

payment, payable out of future production from the property interest assigned. A production payment is carved out if the owner of any interest in a mineral property assigns a production payment to another but retains its interest in the property from which the production payment is assigned.¹⁵

The general rule is that a production payment carved out of a mineral property or retained in a transaction won't be treated as an economic interest in the property and will be treated as if it were a mortgage loan on the property.¹⁶ In the larger picture, a third party is advancing cash to the mineral owner, and the advance will be repaid through either cash or the shipments of the severed mineral. In this fact pattern, the production payments are treated as a return of the principal along with interest.

For a foreign investor, those investments come with dual concerns: ensuring that the agreement passes muster under section 636 and considering how it will be affected by the 1980 Foreign Investment in Real Property Tax Act. An agreement that meets the requirements of section 636 may be attractive if it doesn't convey a right to share in the appreciation in value of the underlying mineral property, thus meeting the "solely as a creditor" rule, and therefore not considered a "U.S. Real Property Interest."¹⁷

An exception to the general treatment of production payments exists, however, when a production payment is carved out for exploration or development of the property. In this case, the production payment will be treated as an economic interest, so the holder is entitled to depletion.¹⁸ The production payment is considered an expenditure for exploration and development to the extent that it is necessary for ascertaining the existence, location, extent, or quality of any deposit of mineral or is incident to or necessary in preparing the deposit for production.

¹¹ Reg. section 1.636-3(a)(1); Robert Swiech et al., *Income Taxation of Natural Resources*, section 2.16 (2014).

¹² Reg. section 1.636-3(a)(1).

¹³ *Id.*

¹⁴ Swiech, *supra* note 11, at section 7.10.

¹⁵ *Id.* at section 7.13.

¹⁶ Section 636(a), (b).

¹⁷ Reg. section 1.897-1(c)(1). A production payment limited by a quantum of mineral, or a time period, would be subject to FIRPTA.

¹⁸ Section 636(a).

The production payment won't be treated as carved out for exploration or development to the extent the consideration for it: (1) isn't pledged for use in future exploration or development of the property burdened; (2) may be used for the exploration or development of any property other than the burdened property; (3) doesn't consist of a binding obligation to pay expenses of the exploration or development of the property burdened by the production payment; or (4) doesn't consist of a binding obligation of the payee to provide services, materials, supplies, or equipment for exploration or development of the property burdened by the production payment.¹⁹ The requirements of this exception from the general rule for the treatment of production payments create a substantially high bar not often overcome.

Production payments may also be pledged for the acquisition of mining equipment. The resulting tax treatment depends on whether the cost of acquiring the equipment is a development expense, a determination made based on all the facts and circumstances.²⁰

Another exception to the rule is that a production payment retained by the lessor in a leasing transaction remains an economic interest in the property. Any payments received shall be ordinary income, subject to depletion.²¹ The lessee must capitalize the amounts paid when the proceeds of production are applied to the production payment and may recover the amounts through cost depletion.²²

A common issue across all production payments is that industry lenders frequently require securitization of the production payment, which can cause the transaction to fail the section 636 requirements. As discussed earlier, a

production payment must be an economic interest in the mineral in place. A right to the mineral in place that can be required to be satisfied in ways other than the production of the mineral isn't an economic interest.²³ To qualify for section 636 loan treatment, caution should be exercised when structuring a production payment to ensure that the payment is satisfied only by production.

B. Sharing Arrangements

In a typical sharing arrangement, the grantor conveys some interest in the mineral in return for the grantee's contribution of cash or other property to the development of the property. The principal consideration for the assignment is the contractual assumption by the assignee of all or some portion of the burden of the development of the property. An example is an owner of a working interest conveying a 50 percent working interest to another in exchange for the contributions of funds to develop a mine.

Under the pool of capital doctrine, neither the assignor nor the assignee of the working interest realizes income when the interest is assigned in exchange for capital or services provided by the assignee for the development of that property.²⁴ The same economic effect can also be accomplished using tax partnerships and section 754 elections.

C. Streaming Agreements

A streaming agreement is a contract through which U.S. mining companies sell future production in return for an upfront cash payment and periodic payments when the minerals are delivered. Those transactions are generally treated as a purchase of a severed mineral or inventory for U.S. tax purposes, which may have advantages for foreign investors who may export those minerals and are concerned about the effect of FIRPTA on their U.S.-based subsidiaries or

¹⁹ Reg. section 1.636-1(b); *but see* Rev. Proc. 97-55, 1997-2 C.B. 582 (IRS will consider issuing an advance ruling that a right to mineral is a production payment if the right is an economic interest without regard to section 636; the right is limited to a specified dollar, quantum of mineral, or time; it is reasonably expected that it will terminate upon production of not more than 90 percent of the reserves known; and the present value of the production expected to remain after the right terminates is 5 percent or more of the present value of the reserves known to exist.).

²⁰ Rev. Rul. 92-38, 1992-1 C.B. 197.

²¹ Section 636(c); reg. section 1.636-2(b). This is usually done to accumulate tax basis for use in later tax years.

²² Reg. section 1.636-2(a), (c).

²³ Reg. section 1.636-3(a)(1).

²⁴ GCM 22730 (1941). GCM 38883 (July 26, 1982) generally obsoleted all general counsel memoranda (1-28099) issued before the enactment of the 1954 code (Aug. 16, 1954) except those published in the Internal Revenue Bulletin. GCM 38906 (Oct. 13, 1982) noted, in part, that GCM 22730 had been published in the Internal Revenue Bulletin and was "still current." *See also* ILM 201520004.

have an interest in selling the contract. This wouldn't be the case with arrangements — including royalties and production payments other than section 636 transactions — that are considered an investment in a U.S. real property interest that is subject to U.S. taxation under FIRPTA.²⁵

The timing of taxation for some advance payments, including those for future mineral production and delivery, has changed since the amendment of section 451(c) in 2019 and the finalization of Treasury regulations in 2021. These amendments made the use of streaming agreements less attractive in the United States, preventing deferral treatment for specific advance payments for future mineral deliveries.

Today a taxpayer using the accrual method of accounting for a U.S.-based mining operation that receives any advance payment during the year generally includes the advance payment in gross income in the year of receipt.²⁶ Limited deferral is allowed for taxpayers with applicable financial statements, requiring the taxpayer to include the portion of the advance payment in gross income in the year of receipt to the extent taken into account as revenue in the applicable financial statements, and include any remaining portion of the advance payment in gross income in the next tax year.²⁷

IV. Conclusion

Those considering an investment in a mining interest should carefully consider the structure and potential tax consequences of the investment.²⁸ ■

²⁵ Production payments limited by volume or time are subject to FIRPTA, but production payments limited by dollars are just effectively connected income.

²⁶ Reg. section 1.451-8(b).

²⁷ Reg. section 1.451-8(c).

²⁸ The foregoing information is not intended to be “written advice concerning one or more Federal tax matters” subject to the requirements of section 10.37(a)(2) of Treasury Department Circular 230. The information contained in this article is of a general nature and based on authorities that are subject to change. Applicability of the information to specific situations should be determined through consultation with your tax adviser. This article represents the views of the authors only and does not necessarily represent the views or professional advice of PwC or KPMG LLP.

Copyright 2022 KPMG LLP, a Delaware limited liability partnership and a member firm of the KPMG global organization of independent member firms affiliated with KPMG International Limited, a private English company limited by guarantee. All rights reserved.

taxnotes®

Education | Debate | Fairness | Transparency



We're on a mission.

Creating a marketplace of ideas and an atmosphere that fosters public debate, where exchanges are open, all sides of the aisle are represented, and all ideas are welcome.

We publish world-class news and analysis, host and provide speakers for conferences on topics that matter, provide material for free on our site, and pursue the release of important public information through the Freedom of Information Act.

Find out more at
taxnotes.com/free-resources.