GM bets big on MP Materials being the Holy Grail for an American rare earth magnet supply chain

written by Tracy Weslosky | December 13, 2021

What a difference a year makes as we review the reincarnation of the rare earths mining project in California, just across the Nevada border at the Mountain Pass mine – MP Materials Corp. (NYSE: MP), which began trading on the NYSE on November 18, 2020…announces a new rare earths magnet facility and binding long-term agreement with General Motors (GM).

Looking in the rear-view mirror for a moment, "Best Quarter Ever" would be their headline for their Q3-2021 just announced last month. By the numbers from Q3 alone, they should be proud – 98% uptime, steady and sustainable processing cost improvements, 46% margin – all things that point to a great quarter, especially with the increases in rare earths prices in the past 12 months. MP Materials saw a 127% increase in their realized rare earths oxide price compared to Q3-2020.

My phones are ringing, the experts are whispering a wide range of feedback to me as the 'new and improved' MP Materials still has many bridges to cross before the trust of those that rode the dusty trails on Mountain Pass previously will be rebuilt. Surely this is a good sign?

The GM deal with MP Materials is to "supply U.S.-sourced and manufactured rare earth materials, alloy and finished magnets for the electric motors in more than a dozen models using GM's Ultium Platform, with a gradual production ramp that begins in

2023.”

The selection of Fort Worth, Texas as the location for the MP facility will be worthy of many debates but stands a distant second to the issues around securing the talent that can make this dream come true. These obvious challenges aside for a moment, management has delivered in clearly articulating where they are taking this REE program next. They told the market that the announcement of a Stage III facility would be made before the end of 2022 and here it is.

Kudos.

Mountain Pass is the only rare earths mining and processing site of commercial scale in the Western Hemisphere and currently produces approximately 15% of global rare earth content, according to them. The mine has been in production off and on since 1952 but was restarted in 2017. On going public, the MP Materials team highlighted their plan for Stage I (restore production and get the bugs out), Stage II (facilities to produce separated rare earths oxides) and Stage III (rare earths-based magnet production 2025-ish).

Sometimes you have to have a little luck to be good, toss in some deep pockets and MP Materials are reaching for quite a star, but I must confess their timeline is virtually inconceivable to everyone I know. Their original target for magnet production was 2025-ish and zealous. Now management is now saying 2023. In less than 24 months, MP Materials expects to permit and build a 200,000 square foot greenfield facility and commence commercial production of sintered permanent magnets. They also need equipment to do this – hopefully, it has already been ordered, because this is not a run-of-the-mill facility. Creating a sintered Neodymium-Iron-Boron (NdFeB) permanent magnet is not like building a washing machine, which GM must

certainly be aware of. The development of permanent magnets originated in the US, but other than the equipment formerly-owned by Hitachi Metals now acquired by another nascent US rare earth producer, the US has virtually no capacity to produce sintered NdFeB permanent magnets today.

Again, on paper, this looks like an absolutely incredible strategy to re-establish a domestic source of rare earths permanent magnets in NA. Music to many our ears, if they prove they can make this happen. Having been in these trenches for too long, my experience is that the few that have the experience may be counted on one hand, and while MP Materials pockets are deep – it's going take every bit of their cash to build the magnet facility and get it operational, especially with the Stage II plans for Mountain Pass still to be executed.

With the valuation on this stock being priced as if Stage III has been accomplished and at full production, MP Materials needs this to work, as does General Motors. It's a big bet.