American Manganese Successfully Produces NMC-532 Cathode Precursor from Recycled NMC Cathode Waste

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Legislation Could Encourage Vertical Integration of RecycLiCo™ Alongside Battery Gigafactories

Results Suggest AMY RecycLiCo Process May Allow Upcycling of Older Cathode Chemistries Directly into New Chemistries Favored by Industry

SURREY, June 29, 2021 - American Manganese Inc. ("AMY" or the "Company") (TSXV:AMY)(OTCQB:AMYZF)(FSE:2AM), a pioneer in advanced lithium-ion battery cathode recycling, and its independent R&D contractor Kemetco Research Inc. ("Kemetco") are pleased to report the successful production of NMC-532 cathode precursor from recycled NMC (lithium-nickel-manganese-cobalt oxide) cathode waste. The number designation following NMC indicates the ratio of nickel, manganese, and cobalt contained (i.e. the NMC-532 ratio is 50% nickel, 30% manganese, and 20% cobalt). American Manganese has also planned future test work to produce NMC-622 and NMC-811 cathode precursor materials.

"Modern lithium-ion battery cathode chemistries have rapidly evolved to having less cobalt and more nickel or manganese materials, which does not reflect the cathode chemistries of older batteries approaching their end-of-life," said Larry Reaugh, President and CEO of American Manganese. "Adjusting the ratio of the leached metals enhances the RecycLiCo™ process giving us flexibility to directly 'up-cycle' older cathode chemistries, such as NMC-111, into modern electric vehicle cathode chemistries, such as NMC-532."

The improved flexibility of the RecycLiCo™ direct recycling process demonstrates the potential to compress traditional lithium-ion battery supply chain into one closed-loop process:

1. Leach NMC cathode waste to produce a pregnant leach solution (PLS) that contains lithium, nickel, manganese, and cobalt.
2. Adjust the ratio of cathode metals in the PLS to the desired composition (e.g. NMC-532).
3. Produce cathode precursor directly from the adjusted PLS.

With up to 100% cathode material recovery and high-quality cathode precursor production, American Manganese believes that the RecycLiCo™ patented process offers a more practical, cost-effective, and efficient solution for achieving a circular economy, relative to competing recycling technologies that undergo multiple steps to produce lower-value intermediate products that require additional refining before production into cathode precursor material.

At present, cathode precursor production is dominated by a few geographical locations, and as highlighted in the White House's recent '100-Day Battery Supply Chain Review':

"Without a footprint in the earlier stages of manufacturing (including materials processing, as well as electrode, cell, and pack manufacturing), intermediate recycled products will be exported to markets/countries that have these capabilities."

"Currently, the United States has limited raw material production capacity and virtually no processing capacity. Without processing capacity, the United States exports the limited raw materials produced today to foreign markets…"

The RecycLiCo™ process could offer a complete solution that includes recycling and cathode

precursor production in one closed-loop process. The White House supply chain report suggests policy initiatives that could encourage the vertical integration of RecycLiCo™ alongside Gigafactories, where production waste accounts for at least 10% of a Gigafactory's production capacity - a ready source of recycling feedstock for the AMY process.

About Kemetco Research Inc.
Kemetco Research is a private sector integrated science, technology, and innovation company. Their Contract Sciences operation provides laboratory analysis and testing, field work, bench scale studies, pilot plant investigations, consulting services, applied research and development for both industry and government. Their clients range from start-up companies developing new technologies through to large multinational corporations with proven processes.

Kemetco provides scientific expertise in the fields of Specialty Analytical Chemistry, Chemical Process and Extractive Metallurgy. Because Kemetco carries out research in many different fields, it can offer a broader range of backgrounds and expertise than most laboratories.

About American Manganese Inc.
American Manganese Inc. is a critical metals company focused on the recycling of lithium-ion batteries with the RecycLiCo™ patented process. The RecycLiCo™ patented process was developed to offer a closed-loop and environmentally friendly solution for the recycling of cathode materials used in lithium-ion batteries. The recycling process provides high extraction and purity of cathode metals, such as lithium, cobalt, nickel, manganese, and aluminum. The RecycLiCo™ process was designed with the goal to produce recycled battery products that could be seamlessly and directly integrated into the re-manufacturing of battery cathodes using minimal processing steps.

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