Giyani Signs Construction Contract for a Demonstration Plant for the K.Hill Battery Manganese Project

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TORONTO, Sept. 06, 2022 - Giyani Metals Corp. (TSXV:EMM, GR:A2DUU8) ("Giyani" or the "Company"), developer of the K.Hill battery-grade manganese project in Botswana ("K.Hill Battery Manganese Project" or "K.Hill"), is pleased to announce that it has signed a design-build contract ("Contract") with specialist South African-based hydrometallurgical engineering firm Met63 (Pty) Ltd. ("Met63") for the construction of a demonstration plant ("Demo Plant").

Highlights

- Specialist hydrometallurgical engineering and consulting company Met63 engaged to construct and commission the Demo Plant in Johannesburg, South Africa;
- The Demo Plant will be built according to the process flowsheet developed by Coffey Geotechnics Ltd., a Tetra Tech company ("Tetra Tech"), and completed and accepted by Met63;
- The Demo Plant will produce high-purity manganese sulphate monohydrate ("HPMSM") samples that will be sent for testing by lithium-ion battery manufacturers and automotive original equipment manufacturers ("OEM"); and
- Construction of the Demo Plant currently anticipated to be completed by mid-2023 with first HPMSM product samples expected to be available for shipment in H2 2023.

The Demo Plant project has the following key objectives:

1. To demonstrate that Giyani's HPMSM product specifications can be achieved based on the process flowsheet developed by Tetra Tech, and completed and accepted by Met63 earlier this year, for the K.Hill Battery Manganese Project;
2. To provide HPMSM samples to potential buyers for their supply chain testing and product qualification;
3. To de-risk the commercial plant development by using the Demo Plant for optimization of the ongoing process engineering work; and
4. To use the Demo Plant as a training facility.

The Contract covers the engineering, construction and commissioning of the Demo Plant, on an open book and cost-reimbursable basis. The capital expenditure of approximately USD9.2 million, plus incentives for Met63 based on delivery of the Demo Plant on time, within budget and on specification, will be funded from the Company's existing cash resources. Met63 is a specialist hydrometallurgical engineering and consulting company based in South Africa with a team that has extensive experience in designing hydrometallurgical circuits and specializes in advanced modular process plants for battery-grade metals.

The Demo Plant is designed for a continuous process, so that HPMSM crystals meeting the stringent product specifications set by potential off-takers can be produced in a steady state operation. To support the continuous process, the Demo Plant will be equipped with a sophisticated instrumentation and control system that also provides the flexibility to use the Demo Plant for de-risking the commercial plant development and as a training facility. The Demo Plant can produce up to 600kg of dry HPMSM crystals per day depending on feedstock characteristics.

Met63 and the Company have selected a construction site in Johannesburg where the Demo Plant will be commissioned and operated before expected relocation to Botswana. Completion of the construction of the Demo Plant is currently anticipated by mid-2023 with commissioning, ramp-up and first HPMSM product samples expected to be available for shipment in H2 2023. This timeline has been made possible by the early procurement of the longest lead items, in particular the two crystallizers and associated accessories that were ordered in March and June 2022, which are currently scheduled for delivery in Q1 2023, and make up the entire crystallization unit of the Demo Plant that will allow for it to operate on a continuous process.

The Company intends to dispatch HPMSM product to potential off-takers in the European, North American and Asian markets, a number of whom have already requested samples. Giyani's HPMSM product will then be tested to verify quality and performance characteristics prior to the conclusion of any potential off-take contracts.

Robin Birchall, CEO of the Company, commented:

"The Demo Plant is a cornerstone of our strategy for full commercial development. Its objectives are to validate our process flowsheet, de-risk commercial development of K.Hill and facilitate off-take contracts with battery and OEM customers. Signing this contract with Met63, an experienced specialist hydrometallurgical engineering firm with a proven track record in engineering and construction of battery-grade metal projects, is another step towards production and first shipments of HPMSM in the second half of 2023.

The support of our shareholders has allowed us to fund the construction and commissioning of a larger Demo Plant than originally envisaged, with a capacity of up to 600kg per day, despite inflationary pressures and cost increases across the mining industry. An increasing number of OEMs have highlighted the potential of manganese-rich cathodes and so our enlarged facility will be able to cater for increased demand for HPMSM samples.

Our low carbon process makes Giyani an ideal partner for the supply of this critical battery material. With several key catalysts on the horizon, including the release of our feasibility study on K.Hill, we are entering a very exciting phase of development."

About Giyani

Giyani is a mineral resource company focused on becoming one of Africa's first low-carbon producers of high-purity manganese sulphate precursor materials directly from manganese oxide ore, used by battery manufacturers for the expanding EV market, through the advancement of its manganese assets in the Kanye Basin in south-eastern Botswana, (the "Kanye Basin Prospects") through its wholly-owned Botswana subsidiary Menzi Battery Metals (Pty) Limited. The Company's Kanye Basin Prospects consist of eight prospecting licences and include the past producing Kgwakgwe Hill mine and project, referred to as the K.Hill Battery Manganese Project, the Otse manganese prospect and the Lobatse manganese prospect, both of which have seen historical mining activities.

The Company is currently undertaking a feasibility study on the K.Hill Battery Manganese Project, following an updated preliminary assessment report announced on April 12, 2021, with a post-tax NPV of USD332 million and post-tax IRR of 80%, based on a development plan to produce around 891,000 tonnes of HPMSM over a ten year project life. An updated 43-101 technical report on the K.Hill Battery Manganese Project is available on www.sedar.com and on the Company's website at giyanimetals.com.

About Met63

Met63 is a dynamic, technology-based engineering and consulting company with expertise in providing tailored engineering solutions utilising innovative and cost-effective mineral processing options. The Met63 team has extensive experience in designing hydrometallurgical circuits and specializes in advanced modular process plants for battery-grade metals. For more information about Met63, please visit met63.com.

About Tetra Tech

Tetra Tech is a leading provider of high-end consulting and engineering services for projects worldwide. With 21,000 associates working together, Tetra Tech provides clear solutions to complex problems in water, environment, sustainable infrastructure, renewable energy, and international development. We are Leading with Science® to provide sustainable and resilient solutions for our clients. For more information about Tetra Tech, please visit tetratech.com

Qualified Persons / NI 43-101 Disclosures

Mr. Jacques du Toit CEng. PrEng. MscEng. PMP is a qualified person, as defined by National Instrument 43-101. Mr. du Toit is the Company's VP, Technical Services and has reviewed and approved the scientific and technical content contained in this press release but is not independent for the purposes of NI 43-101.

On behalf of the Board of Directors of Giyani Metals Corp.

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