MUSTANG
RESOURCES LTD

COMPANY INFORMATION

Mustang Resources Ltd
ABN 34 090 074 785
ASX Code: MUS

Current Shares on Issue:
940,111,309

Market Capitalisation:
$18.8M as at 11 June 2018

COMPANY DIRECTORS

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Ore sorting tests highlight scope to increase production and cut costs at Caula Graphite-Vanadium Project

Key Points

- **Preliminary ore sorting testwork was conducted by specialists TOMRA Sorting at its Test and Demonstration Centre at Castle Hill, NSW Australia**
- **X-Ray Transmission and Conductivity (EM) sorting were both evaluated**
- **The tests found:**
  - **in a full-scale mining operation, EM sorting would efficiently reject barren waste with minimal loss of graphite or vanadium values**
  - **a moderate-grade ore sample with no visible waste was successfully split into high-grade and low-grade fractions**
  - **potential to use ore sorting to upgrade graphite and vanadium grades**
- **TOMRA recommends a larger-scale formal testwork program based on these strong results**
- **The results demonstrate the potential to increase production rates without increasing the plant size and to reduce operating costs**

Mustang Resources (**ASX: MUS**) is pleased to announce that it has received strong results from preliminary ore sorting testwork conducted on drill core from its Caula Graphite-Vanadium project in Mozambique.

This testwork demonstrated that the Caula ore is highly amenable to sensor-based ore sorting. Results showed that an ore sample with no visible waste could be split into high-grade and low-grade streams.

Both X-Ray Transmission and Conductivity-based (EM) sorting were evaluated with the EM sorting generating the best result. The EM sensors evaluate the proportion of electrically-conductive mineral (in this case graphite) in each rock particle. Vanadium values are closely associated with graphite and show a similar response to sorting.

Ore sorting enables waste rock and low-grade ore to be separated from run-of-mine ore. Sorting saves costs by rejecting waste rock and low-grade ore ahead of expensive processing steps such as milling and froth flotation. In many cases, sorting delivers additional environmental benefits to projects due to reduced tailings volumes, enhanced tailings storage stability and other factors.

High capacity, sensor-based ore sorting is an emerging technology which can deliver enormous value, particularly when considered for a new mining project. TOMRA has a successful track record in the mining industry with sensor-based sorting installations operating at feed rates ranging up to several hundred tonnes per hour. These systems are fully automated and have very low costs per tonne processed.

The Caula Project is located along strike from Syrah Resources' (ASX: SYR) world-class Balama graphite project in Mozambique.

Sample Tested

The sample selected was a continuous portion of quartered NQ diamond drill core from 58m to 88m downhole in borehole MODD015. The sample was chosen to represent fresh ore with moderate grades of graphite and vanadium and no visible barren rock intersections.

Test Procedure

The selected quarter core sample with a total weight of 66kg was first broken into approximately 50mm lengths. It was then split into two portions using a rotary riffle and one of these portions, with a weight of about 30kg, was sent to the TOMRA Test and Demonstration Centre at Castle Hill, NSW Australia.

At TOMRA, the sample was screened at 16 mm to remove fines ahead of sorting tests. About 30% of the sample reported to fines. The screen oversize was then subject to sorting tests on both XRT and EM based machines. After discussion of preliminary results with Mustang, the sorting parameters of each machines were adjusted to give an approximate 50% mass split between concentrate and reject.

The screen oversize material was then recombined before being split into two portions. One of these portions as sorted by XRT, the other by EM. With the screen undersize, this gave 5 product samples which were returned to Nagrom Laboratories in Perth for analysis.

The samples were individually crushed and blended. Analysis samples were then split out and sent for graphite analysis, multi element XRF analysis and semi-quantitative XRD mineral analysis.

Results

The mass split and the distribution of contained graphite and vanadium between the five samples is shown in Figure 1. It can be seen that the unsorted fine material was significantly enriched in both graphite and vanadium. This is not surprising as the graphite-rich zones of ore tend to be quite friable compared with lower grade zones. It is also immediately apparent that the EM sorting achieved greater levels of separation of graphite and vanadium values than the XRT sorting.

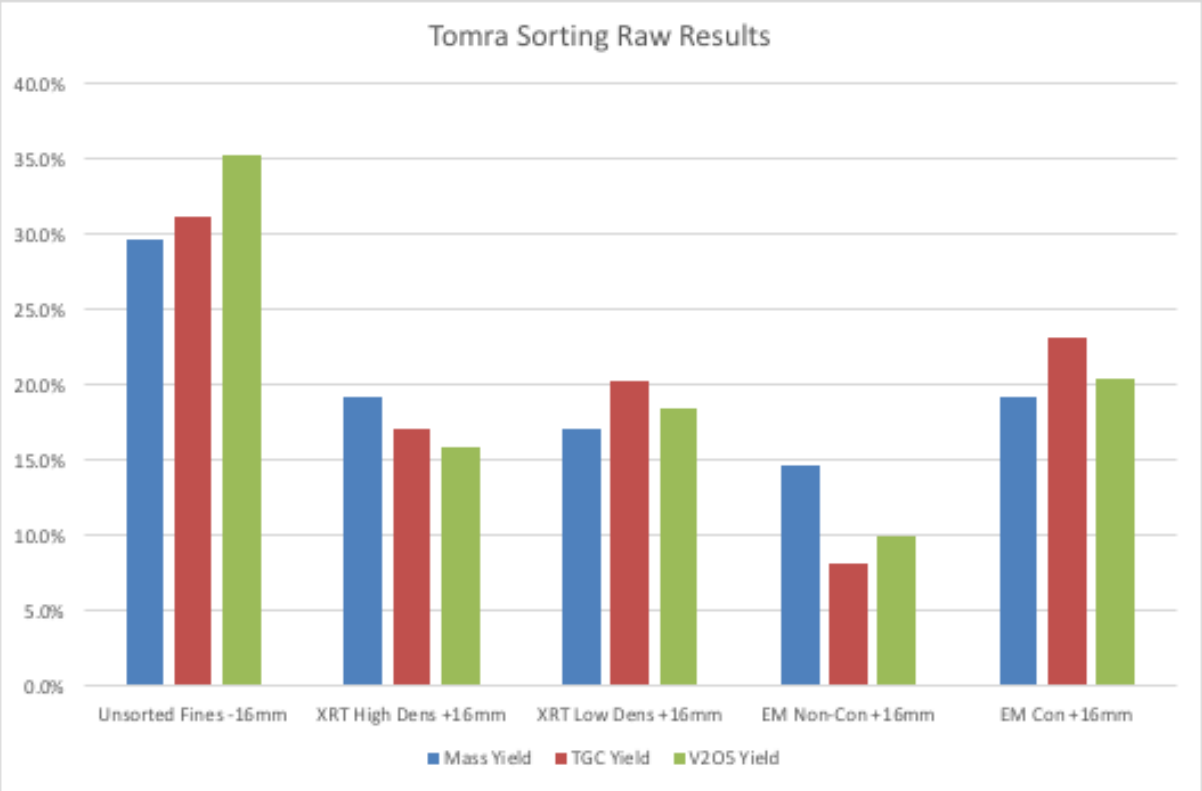

Figure 1. The mass split and the distribution of contained graphite and vanadium between the five fractions.

Sorting performance results were calculated by apportioning the screen undersize between the EM and XRT tests based on the weight of screen oversize used in each test. Screen undersize and the high-grade material from the sorting were then combined to give an overall high-grade stream. The low-value material from the sorting was then classified as the low-grade stream. This gives the results shown in Tables 1 and 2 for the EM and XRT Sort runs respectively.

Table 1. Results of EM Sorting Run

Stream	Yield			Assays	
	Mass	TGC	V2O5	% TGC	% V2O5
Feed	100%	100%	100%	11.18	0.274
High-Grade	70%	82%	79%	13.23	0.311
Low-Grade	30%	18%	21%	6.50	0.188

Table 2. Results of the XRT Sorting Run

Stream	Yield			Assays	
	Mass	TGC	V2O5	% TGC	% V2O5
Feed	100%	100%	100%	12.02	0.283
High-Grade	63%	68%	70%	13.04	0.315
Low-Grade	37%	32%	30%	10.30	0.229

For and on behalf of the Board

Dr. Bernard Olivier
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COMPETENT PERSON'S STATEMENT:

Information in this report that relates to the ore sorting and sample composites of the Caula Graphite & Vanadium Project's is based on information compiled by Dr. Evan Kirby, a Competent Person who is a registered member of the South African Institute for Mining and Metallurgy (SAIMM), which is a Recognised Professional Organisation (RPO) included in a list posted on the ASX website. Dr Kirby is a consultant who was engaged by the company to undertake this work. Dr Kirby is a Non-Executive Director of the company. Dr Kirby has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration and to the activity, which he is undertaking to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Dr Kirby consents to the inclusion of the data in the form and context in which it appears.

FORWARD-LOOKING STATEMENTS:

This document may include forward-looking statements. Forward-looking statements include, but are not necessarily limited to the Company's planned exploration program and other statements that are not historic facts. When used in this document, words such as "could", "plan", "estimate", "expect", "intend", "may", "potential", "should" and similar expressions are forward-looking statements. Although the Company considers that its expectations reflected in these statements are reasonable, such statements involve risks and uncertainties, and no assurance can be given that actual results will be consistent with these forward-looking statement.