

VBKOM MANAGES ARME ZANDHEUVEL PHOSPHATE PROJECT DRILLING & SAMPLING CAMPAIGN

Background

Adelaide Ruiters Mining and Exploration (ARME) appointed VBKOM in 2019 to conduct and manage the entire bankable feasibility study of the Zandheuvél Phosphate Project close to Saldanha in the Western Cape. The appointment included all aspects of project management for the integration of all technical disciplines to ensure that work packages are delivered in time and that sufficient knowledge of the processes is gained to be able to do a reserve sign-off in accordance to the SAMREC Code. Engineering support to submit a revised Mine Works Programme ('MWP') and Environmental Impact Assessment ('EIA') was also given.

A fair amount of historical, as well as recent, test work was conducted by Maelgwyn. Despite the aforementioned, and after much deliberation of the beneficiation properties, a decision was made to also conduct pilot plant test work to finalise the process flow diagram for the beneficiation plant. It was calculated that a 5-tonne sample will be required to enable pilot-scale test work to confirm the bench scale milling and flotation characteristics of the phosphate ore.

As a result a drilling campaign was planned and successfully executed in July 2020 to acquire a bulk sample for the aforementioned pilot test work. Five wet rotary core drill holes were planned and drilled at a 30-centimeter outer hole diameter. The samples were collected in lined sumps, from where it was transferred into bins for transport to Johannesburg.

The value to the client:

The campaign was executed on time during the Cape winter amid COVID control protocols and highly erratic weather conditions. Despite all these challenges 165 meters were drilled in total, of which 72 meters were within the ore zones. The value to client was that the final estimated bulk sample size equalled roughly 4.9 tonnes: sufficient to enable pilot scale test work.



George Olivier (VBKOM Director), Paul Obermeyer (VBKOM Principal Geologist) and Adelaide Ruiters (CEO and Founder ARME) at the drilling site.

Says Adelaide Ruiters CEO and Founder of Adelaide Ruiters Mining and Exploration Pty Ltd: *"My Technical Team and I, lead by VBKOM are indeed building a New Phosphate Competency for our country. This is vital for our nation to ensure that we as a country remain in control of our food security. Our South African Sedimentary Phosphate Rock Resources are known to contain one of the lowest Cadmium levels in the world and should be recognised locally and regionally by our agriculture industry. There are many health risks associated with high levels of Cadmium in fertilizers. Most of our phosphate rock are currently being imported into our country by fertilizer blenders. We are aiming to provide the farmer with a cheaper, more environmentally friendlier alternative Direct Application Fertilizer that can also lead to a healthier nation. We are also aiming to further downstream beneficiate our phosphate resources for the better of our country, our nation and help our country recover economically from this Covid Pandemic."*

Tags: Metallurgy, Geometallurgy, EIA, Environmental Impact Assessment, MWP, Mine Works Programme, Bulk Sample, Drilling Campaign, COVID, Phosphate Drilling, ARME, Adelaide Ruiters Mining and Exploration, Zandheuvél Phosphate Project, Pilot Plant Test Work