FOR IMMEDIATE RELEASE

Murray & Roberts Cementation Zambia Reports Progress On Synclinorium Shaft Sinking Project

Murray & Roberts Cementation Zambia has reported completion of the sinking of the Synclinorium Shaft project in Kitwe, Zambia for its client Mopani Copper Mines (MCM). "The last blast of the Main shaft took place on 30 September 2014 with the shaft at a final depth of 1 280.85 m below the shaft collar," Neil Mackay, project manager, says.

The scope of work comprised a blind sink of a 7 m diameter downcast lined shaft with a bulk air cooler level, two electrical cubbies and two stations. The equipping and commissioning of the shaft commenced at the end of October with the erection of a new headgear, winder and roping up the shaft scheduled for 2015.

The current date for commissioning of the shaft is December 2015. The Murray & Roberts Synclinorium shaft team has worked closely with the Mopani Copper Mine Synclinorium Project team towards the common goal of helping the project reach the safe stage where it is today.

Noteworthy achievements at the Synclinorium Shaft project to date include a record 96 m of sinking and lining achieved for the month of August 2013 and a Lost Time Injury Free figure of 290 days to date. A challenge to date has been the pumping of up to 24 000 litres of ground water daily from the shaft. This groundwater is pumped to the surface from where it is diverted into a settlement pond for treatment.

"We intersected a 28 m dyke, from 1 040 m from 1 068 m, and sank through it without incident, a notable achievement given that the rock is very hard and susceptible to scaling. This has necessitated support to within 1 m of the shaft bottom in order to increase worker safety," Wyllie Pearson, senior project manager, Murray & Roberts Cementation Zambia, says.

Equipment deployed on the project by Murray & Roberts Cementation Zambia includes stage and kibble winders, a five boom jumbo shaft drill rig, a five deck working stage with a cactus grab, two mini excavators and an automated batch plant. All equipment is serviced in a comprehensive on site

synclinorium update

workshop by a well trained team to ensure operational excellence and adherence to stringent safety

measures.

Murray & Roberts Cementation Zambia has also pioneered several health and safety innovations at

the Syclinorium Shaft project. These include a new system to replace the old system of hand signals

and pull bells to communicate from the shaft bottom to the working stage platform. The new system

consists of a radio installed in a worker's hardhat, with a built in speaker and microphone to enable

hands free operation. The shaft bottom signalling system allows the sinker at the shaft bottom to

give the kibble winding engine driver signals from a hand held unit.

Electronic alcohol testing equipment has also been deployed to measure the blood alcohol levels of

all workers entering and leaving the site. The system is linked to the entrance turnstile and will not

allow a worker to enter if he is in violation of the zero parameter. Another innovation has been the

introduction of directional rope lights on the stage to indicate to all workers which direction the

kibble is at any given time.

While the Synclinorium Shaft represents Murray & Roberts Cementation Zambia's first project for

MCM, subsequent similar projects managed from its Kitwe office have underlined the contractor's

excellent track record in the country. The team is 1 084 strong, comprising accountants, human

resources coordinators, training facilitators and raise bore, mining and engineering teams.

Of these 141 are expatriate workers, ranging from management to shaft sinking specialists. A full

project management, shaft sinking, raise boring and development portfolio offering is provided by

Murray & Roberts Cementation Zambia, in addition to training and technical support.

SYNCLINORIUM UPDATE PIC 01: The final depth of the shaft was 1 280.85 m below the shaft collar,

with the last blast having taken place on 30 September 2014.

ENDS ... OCTOBER 2014

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