## CNMC Luanshya and the University of Science & Technology Beijing Signing a Contract on Scientific Research for Open-pit Mining

On the morning of June 7 local time, CNMC Luanshya Copper Mines Plc, one of CNMCL's enterprises in Zambia, and the University of Science & Technology Beijing signed in Zambia the Technical Development Contract for "Side Slope Stability Evaluation and Control Technology Research Project of Muliashi Open-pit Mine." The event marked the further cooperation between the two sides by giving play to their own advantages as university and enterprise. Their overseas scientific research cooperation is based on their joint research of mining methods for Baluba Copper Mine and joint training of postgraduates.

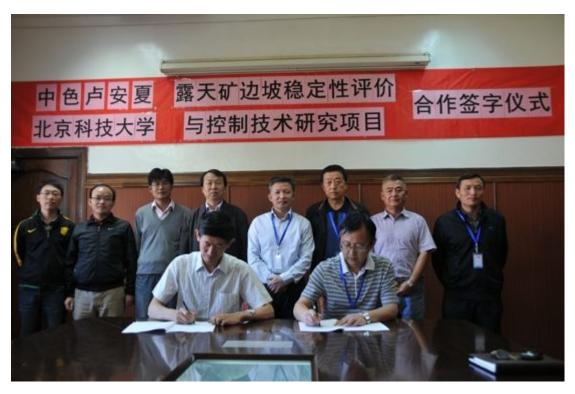
CNMC Luanshya is a backbone enterprise built in Zambia on CNMCL investment. Now, it runs two major projects, Baluba Copper Mine and Muliashi Copper Mine. Of these, Muliashi Copper Mine Project contains two parts, Muliashi Open-pit Mine and Muliashi Leaching Copper Smelting Plant. Muliashi Open-pit Mine has a designed annual production capacity of 4.50 million tons of ores while Muliashi Leaching Copper Smelting Plant has a designed annual production capacity of 40,000 tons of cathode copper.

The University of Science & Technology Beijing is one of the first key universities involved in China's National "211 Project." Its Civil and Environmental Engineering School boasts "Mine Engineering," a national level-one key discipline, and three national level-two key disciplines such as "Mining Engineering," "Mineral Processing Engineering," and "Safety Technology and Engineering." The university has formed its unique characteristics and discipline advantages in fields such as mine rock mechanics, mining theory and technology, mineshaft support and reinforcement, open-pit side slope stability study and application, and digital mine construction.

With the nonstop mining at Muliashi Open-pit Mine, its open-pit slopes cave in to different extents, which, as a hidden peril threatening work safety of the mine, has affected its production progress and cost to certain extent.With open-pit mining going to greater depths, the stability of the side slopes has greater and greater impact on work safety of the mine. To address the issue, CNMC Luanshya works with the University of Science & Technology Beijing to establish a task force on "side slope stability evaluation and control technical research for Muliashi Open-pit Mine." Targeting the landslide with the open-pit mine, the task force has studied the stability of the side slopes of Muliashi Open-pit Mine by carrying out engineering geological survey, rock-soil mechanics property test, and field in-situ testing and monitoring. Now, it has completed some preparation work in side slope stability study and application.

According to the task force, on the basis of the preparation, it is imperative that side slope stability evaluation and control technical research is done for Muliashi Open-pit Mine by considering the status quo of the open-pit side slopes and the feasibility of the side slope stability control technologies. The task force also holds that the anticipated technical results can be achieved.

LuoXingeng, executive director of CNMCL and president of CNMC Luanshya, Hu Nailian, president of the Civil and Environmental Engineering School of the University of Science & Technology Beijing, and other relevant leaders and personnel of the two parties attended the contract-signing ceremony.



(The Contract-signing Ceremony)



(Field Investigation)



(In-depth Discussion)