

## MINING COMPLEX KAZANDOL



Production plant:

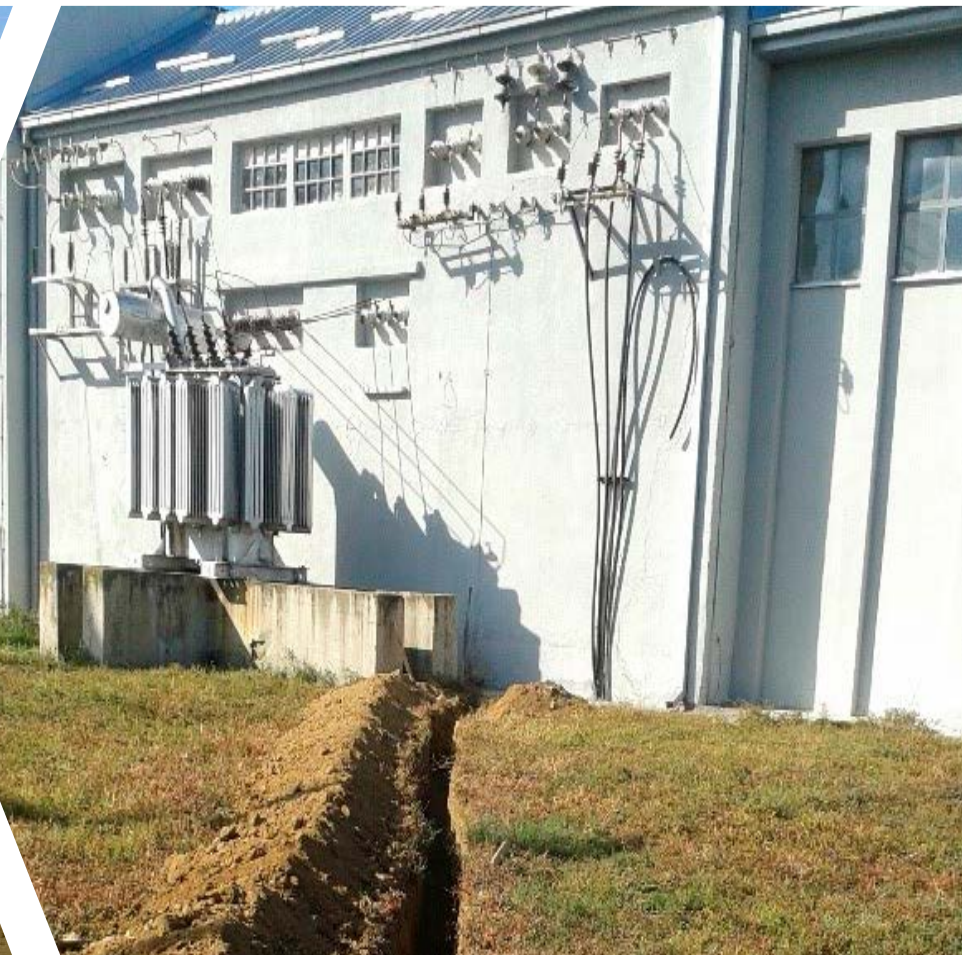
- installation of the equipment for solvent extraction and electrowinning



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### Power supply:

- power cable laying was completed, the transformer substation was installed and connected, power supply was provided for all facilities





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### Water supply:

- **p**ump stations constructed, completed installation of pumps, pipelines, hydrants, power supply of pump stations connected
- **w**ater supply of the site is enabled





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### Main pipeline:

- installation and laying in trenches of pipelines for transport of pregnant leach solution from the Dam E2 to the production plant, as well as for transport of raffinate from the production plant to the Dam E2 and to the floors for ore leaching have been made
- installation and laying in trenches of pipeline for transport of technical water from the Dam E2 to the production plant as well as installation of the discharge pipeline from the Dam E3 have been made
- installation of the irrigation pipeline on the floors for ore leaching





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### Dam E2 with working accumulation space:

- berms of the dam are constructed
- drainage wall construction and drainage pipeline installation are completed
- dam body laying is finished
- construction of an access road to the dam berm is completed
- completed construction of the spillway
- completed construction of the shaft of Pump Station 1 as well as the installation of the waterproofing materials





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Dam E3 with accumulation space for atmospheric water:

- construction of the approach road is completed
- dam berms are constructed
- dam body has been constructed and the side spillway installation has been completed
- water intake facilities installed
- waterproofing liner installation has been completed





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Dam E1 with emergency accumulation space:

- dam body construction is finished





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### Floor for ore leaching 192.1:

- **e**arth works for trench construction for the laying of drainage pipeline are completed
- **d**rainage pipeline laying is completed
- **c**onstruction of four protective drainage walls made of waterproof material is completed
- **c**onstruction of the western berm of the floor for ore leaching is completed
- **f**inished construction of a circulation channel on the western berm
- **f**ormation of the slopes as well as installation of waterproofing materials are completed
- **i**nstallation of the protective and drainage layers is completed





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Warehouse of sulfuric acid, extractant and diluent:

- tanks for storing reagents have been completed





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### Pump station 1:

- installation works completed



### Pump station 2:

- installation works completed





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### Preparatory works at the mine:

- completed clearing of vegetation and humus on the surface layer of the horizon at 320 m
- pre-exploitation exploration works are completed
- ore crushing machinery has been delivered on-site
- protective and drainage layers installation preparatory activities are being carried out at the Mining facility - floors for ore leaching (Heaps)





## EQUIPMENT ORDER AND DELIVERY

- 1 An advance payment was made to Outotec (Finland) and other equipment suppliers.



- 3 Visits to plants that use Outotec's equipment (Asarel-Medet, Mazidagi) were carried out in order to inspect the conditions of its installation and operation.



- 2 Visits to manufacturing plants were carried out in order to check the quality and the terms of delivery.



- 4 Outotec's equipment is being delivered and installed.