

Bidding for Reverse Circulation Drilling
Madneuli/Sakdrisi Project, Georgia, Bolnisi Region

June 2021

INFORMATION AND SPECIFICATIONS FOR THE DRILLING PROGRAM

Purpose of the Bidding

RMG is inquiring proposals for reverse circulation drilling of approximately 30,000 meters. The program will be used to define the grade control drilling of the Madneuli/Sakdrisi mine project.

The project is located near the town of Bolnisi, Qvemo Kartli region, in south-eastern Georgia. The average depth of the holes is expecting to be 30m with some exception of 50m.

General Information

Madneuli and Sakdrisi Cu-Au mines are located in Georgia approximately 80 km South from Tbilisi, the capital city. The closest city is Bolnisi around 15km to the NW within the Kvemo-Kartli Province. The mines are located some 17km north from the Armenian border. The access to the mine is via a wide tar road passing through the small towns of Bolnisi and Kazreti. The Bolnisi mining district is connected by railway with Tbilisi (70 km) and Black sea ports (400-500 km).

The Madneuli deposit was discovered in 1942 and exploration was completed in 1969. Mine operation commenced in 1975 and till now over 50 mln/t of ore have been processed. The mine tenement covers area of 4.8 km². The current depth of the Madneuli open pit is 330m.

The area is part of the Central mountain chain of Small Caucasus extending beyond the borders in Turkey, Armenia and Azerbaijan, south of the Trialetian ridge.

The moderate topography is rolling hills marked by rock knobs and ridges with elevations ranging from 700m to 1300m above sea level. The highest peaks are Zurab-Kabakrev 1210.9m (NW direction); Pilotrope 1200m to the South, Demurslu 1098.7 (SE direction) and Degurdag 1502.2m.

The overall river system is mountainous with high density of 0.45 - 0.63 km/km² and distinguished V-shape profile. The river draining is highly seasonal and rain dependant.

The climate is typical continental, arid with subtropical influence. Summer temperatures range from 20 to 24 °C, winter temperatures are 2-4°C, while annual average is 12-14°C. The overall humidity is low with annual rainfall of 200 to 800 mm. In winter there is a persistent snow cover between December and March.

Commencement and Duration

It is required that the drilling program begins in early July and be completed at the end of December. The Contractor needs to specify when it is able to commence work and the anticipated duration of the work program, including time for mobilization and demobilization.

Submitted bids should demonstrate the good standing of the company and that the bidder is able to commence and complete the work in professional manner and as specified.

Mobilization/Demobilization

Various options could be considered for the mobilization, import, export, and demobilization of drilling and ancillary equipments from sources to the site. The Contractor is requested to provide a detailed list of all necessary equipment to be shipped from inside and/or outside of the Georgia. The Contractor is requested to provide details and costs for the transport of equipment from its base to site, including all necessary permits such as temporary import and work permits.

Geological and Ground Conditions

Madneuli mine is located within the Somheto-Karabakhkaya environ, comprising Jurassic extrusive formations. The Somheto-Karabakhkaya anticlinorium is the oldest structure forming the Little Caucasus mountain chain, comprising Palaeozoic granitic and volcanic rocks, superimposed by metamorphic units.

The Lower-Jurassic extrusive formation consists of tuffs, porphyritic breccias and keratophyres with widths reaching up to 2700m.

The Madneuli and Sakdrisi deposits is hosted by an upper Cretaceous sequence of volcanic-sedimentary rocks. The deposit is characterised by a north-east trending dome, with the limbs of the dome dipping at between 10 to 40 degrees. A number of steeply dipping faults occur throughout the deposit. Strata are mainly composed of rhyodacitic pyroclastic rocks, with the core of the dome comprising coarse-grained and medium-grained tuffs. These rocks are overlain by a package of alternating tuffs and tuffaceous sandstones.

Madneuli deposit is a transitional type between VMS type and epithermal gold type and can be classified as VMS-epithermal transitional deposit according Hannington, 1999.

Hydrothermal alteration of the pyroclastic host rocks of the Madneuli deposit includes silicification, chloritisation, sericitisation and sulphidisation. Alteration is typically irregularly shaped and strongest in the core of the dome, decreasing towards the marginal zones.

Description of Sites and Access

The drilling sites will be located inside the old operating open pits. The boreholes will be sited in areas where accessibility is possible with 4x4 vehicles. The planning and marking of the borehole sites will be the responsibility of the engineer in charge of the program. The Contractor must satisfy himself as to the location of and access to all of the sites and shall make every effort to respect the proposed location of the borehole collars.

DRILLING SPECIFICATIONS

Program description

For the bidding purposes 30,000 meters should be considered as the basis for proposal submission, however it is expected the drilling may go beyond the above meterage. The holes to be drilled are within the existing open pit or mining area.

Average hole depths are planned to be 30m with some extension to 50m and maximum inclination of 60°. Drilling method should be percussion Reverse Circulation.

Diesel fuel for the drilling operations will be supplied by RMG at no cost to contractor. Drilling operations can be conducted with 2 shifts, to achieve a desirable daily production rate of 300-400 m/d. Bore hole spacing will be 10m. Commencement of operations is expected to be early/mid of July 2021.

The RMG will provide sample boxes/bags, Geologists and field assistance to undertake all sampling activities and will ensure that an adequate supply of sample containers is kept on site at all times.

The RMG will endeavor to achieve a minimum of 95% recovery by volume. In instances where the geological conditions can be proven to have an adverse effect on recoveries (i.e. broken ground, fissures, high ground water inflow or sheared formations) then the 95% recovery condition may be waived and agreed prior to continuation of the work with the Contractor's Site Representative.

Price Structure.

The contract should be bid as a cost per meters contract for normal drilling operation; Contractor will provide a cost per meter drilled.

DRILL HOLE ORIENTATION AND PRECISION

Prior to the commencement of each Drill hole, RMG geologist will give the Contractor's Employees a RC Drilling instruction sheet containing the following information:

Location of each planned drill hole:

- Number of each drill hole;
- Dip (inclination of drill hole from horizontal) and bearing (degrees from grid north) for each drill hole;
- Proposed depth of each drill hole;

Prior to the commencement of Drilling RMG's surveyor will mark in both foresight and back sight, showing the required rigging position and bearing of the drill hole.

The Contractor must accurately rig-up, in line with the surveyed drill line and at the dip specified by the RMG. The collar position shall be within 0.2m of the surveyed mark. Rigs orientation and inclination will need to be inside this tolerance at the hole collar:

±6° to the right or left of the designed bearing.

±4° of the designed dip.

QUALIFICATIONS OF PERSONNEL

The Contractor must provide the services of experienced onsite drilling personnel or who are otherwise required to ensure that the work is carried out safely, efficiently and promptly in accordance with the Agreement.

Drilling Reports

The Contractor must provide a daily drilling report for each drill rig at the end of every shift. Such report must record all activities of the Contractor with respect of each Drilling Program and must include, but not be limited to, the following:

- Names of drill crew;
- Date;
- Drill hole number/s;
- Drilling diameter;
- Drilling progress (metres drilled per Shift, from and to);
- Depth in hole where water is first encountered
- Accidents, “near misses”, and other safety matters.
- Any other relevant issues related to the drilling of the hole or abnormalities

On completion of the daily Drilling report, the Contractor's representative must sign it and hand it to the RMG representative who will check it for its correctness, accuracy and may advise to correct/amend the report, whereupon RMG representative will approve it by signature.

Holes siting

The siting of all drill holes will be under the control of the Company Engineer

Notifications of variations to the program shall be given to the Contractor by the Company Engineer in writing.

Any verbal instructions from the Company engineer must be confirmed in writing to the Contractor by the Engineer within three (3) days of the verbal instruction being given.

Drilling Techniques and Capability

The Contractor shall supply, at its own cost and to its own account, all necessary equipment and other consumables including but not limited with: drilling machines, backup equipment, spares, tools, additives etc. The contractor should have on site to

achieve the normal objectives of the contract, and all labour necessary to perform the work at the rates and within the time contemplated. The Contractor shall employ only competent workmen for the execution of this work and all such work shall be performed under direct supervision of an experienced, competent and expert driller satisfactory to the Engineer.

The choice of drilling technique needs be guided by the requirement to maximize sample recovery and to be able to pass through fracture zones and open space due to underground mining.

The Contractor shall specify in a Schedule of Equipment the type of rig(s) to be used, its age or number of hours used, the method of operation and prove its capacity being sufficient to cope with the work within the Contract duration. It shall be kept at all times in full working order and safe in terms of operation. The Contractor shall also provide the details of the proposed drilling method(s) in order to successfully cross through voids as well as methods to be adopted in maximizing sample recovery, particularly fractures zones.

Site Facilities Available

Water supply

Water will be available from the pit for drilling water needs. The RMG will be responsible for the pumping and transport to the drill site.

Power

Electric power will not be available at the drilling sites and the Contractor is to make his own arrangements for night shift. Compressed air is not available and the Contractor is to make his own arrangements for air requirements.

Accommodation for Employees/Labour

Accommodation for drilling staff shall be provided by the contractor and /or organized with possible suppliers in the Kazreti town. This cost should be included in the cost per meter drilled.

Special Features Requiring Attention

Protection of Existing Services

The Contractor will ensure that site access and all drilling activities will cause minimal damage to vegetation and crops beyond the cleared drilling site areas and access routes. Any necessary enlargement of cleared areas must be discussed with and approved by RMG prior to any additional clearing to be undertaken.

Site Preparation

The coordinates and position of the holes to be drilled will be indicated to the Contractor by RMG Engineer. The Contractor is responsible for preparing the drill site and setting up its equipment.

Compliance with Regulations and Policies

All equipment and construction equipment must comply with any requirements and regulation specified within the Georgia.

Safety and Environmental Considerations

All safety standards regulations shall be respected. The contractor should include in the proposal own safety program. Contractor safety program must comply with international policies, and with the safety regulations of the Georgia.

The Contractor must inspect and acknowledge adherence to the various policies which relate to any activities on the site. These policies include environment, health and safety and employment. Drilling activities must be carried out with due regard for the environment and local communities, particularly with regard to spillage of drilling fluids and fuel. Provision should be made for the containment and clearance of such spill, and these facilities will be inspected by the Company Engineer. Any significant spill must be reported immediately to the Company Engineer or his designate. No containers should be washed out or drained onto bare ground and vehicles and equipment must not be washed in watercourses around the site. Damage to vegetation

and crops in the vicinity of the drill pads must be kept to a minimum required for safe operation, and due care and attention is required to prevent brush fires.

Upon the completion of each borehole, and at the end of the drilling program, the Engineer will inspect each drill pad. All waste material must be removed by the Contractor and disposed of at an approved dump site, and the drill site suitably rehabilitated to the satisfaction of the Engineer. No waste material shall be buried on site.

Security

At no time shall the Contractor, or his personnel, pass on any data or information to any person or agent other than the Company Engineer or his designate.

Insurance

The Contractor shall provide his own fully comprehensive insurance for labour, materials and equipment. No claim or recourse to RMG to be considered in case of any type of loss, theft, fire or accident. The Contractor shall also provide for third party insurance to cover all third party claims whilst on contract.

Material and information to be presented by the contractor with his quotation:

- Cost for mobilization and demobilization.
- Schedule A: Cost per meter drilled. (Cost should include: manpower, equipment, materials, consumables and services, fuel) Cost should exclude VAT.
- Contract Currency;
- Terms of payment;
- List of equipment to be used and country of manufacture.
- Requisites: actual and legal address, telephone number of contact person, e-mail Email address, bank requisites;
- Information about company experience;