

For: Ronald Toledo

MGS Testwork on a Tungsten Ore


Reference: C24_14_PRP_01_02A_00

11 October 2024

PROJECT INFORMATION

Project Number	C24_14	To be added after project registration is complete
Planned Start Date	TBC	
Planned End Date	TBC	
Contact Person	Johnny Mogalanyane 082 500 9178 Johnny.mogalanyane@coremet.co.za	CoreMet Representative

DOCUMENT APPROVAL

CoreMet, Technical Director	Albert Venter	
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ACRONYMS AND SYMBOLS

ABBREVIATION	INTERPRETATION
µm	Micro metre
kg	kilogram
mm	millimetre
MGS	Multi Gravity Separator
XRF	Xray fluorescence
ICP	Inductively Coupled Plasma

1. BACKGROUND

Trinity Metals' Nyakabingo tungsten ore mine is located approximately 19 kilometers northwest of Kigali in the Northern Province, near the village of Shyorongi. Operating under a 25-year license initiated in 2015, the mine has a monthly production exceeding 50 tonnes. Ronald Toledo, on behalf of Trinity Metals, requested Coremet to prepare a proposal for conducting MGS testwork work on samples tungsten bearing samples from the Nyakabingo mine.

CoreMet serves as the primary supplier for Gravity Mining's Multi Gravity Separator (referred to as the MGS). The MGS is an advanced gravity-based separation device, designed for the recovery and cleaning of tin. The MGS has shown its applicability in recovering various minerals, including chromite, tantalite, and numerous others, with a particle size as small as 10µm. Some of the benefits of using the MGS include:

- High grade and recovery from fine and ultra-fine material.
- Ability to handle varying feed pulp densities.
- Ability to concentrate a wide range of valuable metal bearing ores.

The test campaign will be carried out on 4 composite samples, 100% <150µm. The MGS scoping tests will be conducted with the goal of maximizing concentrate grade achieving >60% WO₃ in the final concentrate. It is expected that a rougher and cleaner will be required to achieve the target grade and for this reason an analytical table test was added in order to understand the final grade that can be achieved after a rougher stage.

2. SCOPE

The following scope is proposed:

- Prepare sample (drying, deagglomerating if required)
- Mix sample with water in correct ratio to obtain targeted solid content in the slurry.
- Run material through the MGS using a 5x2 test matrix (5 different drum speeds and 2 wash water flow rate).
- Collect timed concentrate and tails samples simultaneously.

- Dry and bag head, concentrate and tails sub-samples.
- Submit all samples for chemical analysis
- All chemical analysis will be done at SGS.
- Based on the results from the MGS scoping tests, a setting will be chosen (drum speed and wash water flow rate), for bulk concentrate generation.
- The MGS bulk concentrate generation test will only be done on one of the composite samples (Composite sample to be confirmed once the results are available).
- The bulk concentrate and tail sample will be rotary split to remove sub-samples for analytical table tests.
- Analytical table tests will be done with the objective of determining the maximum achievable grades in the cleaner and scavenger units.

Figure 1 shows the Multi Gravity Separator (MGS900) laboratory scale unit that will be used to conduct the gravity separation testwork.



Figure 1: CoreMet's MGS900 lab unit

3. DELIVERABLES

Testwork deliverables are shown in Table 1.

Table 1: Testwork deliverables

Deliverable description
Sample preparation
MGS scoping tests and MGS bulk test
Analytical table tests
Results sheet

4. COST

Testwork cost breakdown is shown in Table 2.

Table 2: Testwork cost breakdown

Description	Rate	Quantity	Cost
Sample receiving			
Sample logging and labelling	R440	9	R3 960
MGS Scoping (5x2 matrix)			
Composite 1	R22 134	1	R22 134
Composite 2	R22 134	1	R22 134
Composite 3	R22 134	1	R22 134
Composite 4	R22 134	1	R22 134
Bulk MGS			
1 x Composite	R11 067	1	R11 067
Analytical table			
1 x MGS concentrate	R5 000	1	R5 000
1 x MGS tail	R5 000	1	R5 000
Sample preparation fractions for analysis			
Oven drying, weighing, splitting, bagging, labelling and submission	R440	12	R5 280
Chemical analysis (SGS)			
Analysis admin	R1 681.04	1	R1 681.04
Sample disposal	R3.10	99	R306.90
Pulverizing	R89.94	99	R8 904.06
MGS fractions (Minor and major oxides)	R579.99	91	R52 779.09
Analytical table fractions (Minor and major oxides)	R579.99	8	R4 639.92
Sample disposal	R19.23	99	R1 903.77
Test coordination and admin	R1 100	12	R13 200
Project management and results sheet	R1 600	8	R12 800
Sub-Total			R215 057.78
Vat 15%			R32 258.67
Total			R247 316.45

Sample storage costs are excluded and will be discussed with the client at the completion of the project if necessary. All other expenses incurred (cost exclusions) by CoreMet will be submitted to the client for approval before the client will be invoiced. Any costs that extend beyond the current scope will be invoiced to the client.

5. SCHEDULE

The start date of the project is dependent on CoreMet receiving the samples and purchase order from Trinity Metals and analysis turnaround times. The official schedule will be provided after the samples are received.

6. COREMET PAYMENTS

60% of cost will be invoiced on placement of order before work can start and 40% of cost to be invoiced on issuing of results sheet. Payment of invoices will be within 30 days after submission directly into CoreMet's bank account.

7. VALIDITY PERIOD

This proposal will be valid for a period of 30 (thirty) calendar days, where after it shall be subject to confirmation.

8. ACCEPTANCE:

Client Name	Designation	Signature	Date

STANDARD TERMS AND CONDITIONS OF SALE

- 1. ACCEPTANCE:** The purchaser acknowledges and agrees that CoreMet Services (Pty) Ltd, Standard Terms and conditions of sale (the standard terms) are incorporated in and are a part of, each purchase order or other agreement relating to the provision of goods & and/or related services by CoreMet whether expressed in written form, by electronic data interchange or otherwise (each referred to as a contract). These standard terms supersede all conflicting or additional terms pre-printed on any purchase order or otherwise set forth on any release, acknowledgement confirmation requisition, work order, shipping instruction, specification and similar document or communication.
- 2. LIMITS OF CONTRACT:** The tender or quotations includes only those goods and/or works specified in the tender or quotation. Additional goods and work will be charged for the purchaser account. The purchaser, furthermore, unless otherwise stated assumes full responsibility for the suitability of the goods or equipment he has specified. Should CoreMet incur extra costs for any reason beyond the control of CoreMet, such cost will be added to the contract price and paid for by the purchaser.
- 3. OPERATING MANUAL, DRAWINGS, SPECIFICATIONS:** All information in our tender documents, specifications and drawings supplied by CoreMet are submitted in confidence for the use and information of the purchaser only. The purchaser except for the purpose of the order, shall not use them, nor shall they be disclosed to any third party for any purpose whatsoever.
- 4. ACCEPTANCE OF OFFER:** Unless otherwise stated, the offer is open for acceptance for a period of 14 days from the date of Tender. In order to constitute a valid order, the order must be in writing and must be accompanied by proof of deposit payment. It must also contain or be accompanied by sufficient information to enable CoreMet to proceed with the order forthwith. Every order received from the purchaser is subject to acceptance by CoreMet and must be acknowledge in writing by a Director of CoreMet to constitute a valid acceptance thereof.
- 5. VARIATION OF TERMS AND CONDITIONS:** No variation of terms and conditions will be binding unless specifically agreed to by a Director of CoreMet in writing. In the absence of specific variations in writing, as aforesaid, the standard terms and conditions as contained herein will be binding and no other.
- 6. DESIGN CHANGES:** Equipment supplied by CoreMet is of standard design and is manufactured to standard drawings and specifications. Should any modifications to the above be called for by virtue of any request by the purchaser, or his inspection authority, the cost of such modifications (including waiting time) will be for the purchaser's account. CoreMet reserves the right to extend any quoted delivery period because of a request to modify goods made during manufacture. The period of such extension shall be determined by CoreMet in its absolute discretion.
- 7. PRECEDENCE OF PROPOSAL:** Should any difference arise between the contents of this quote and any other constituent matter, the contents in this quote shall take precedence.
- 8. SPECIFICATIONS:** Any specifications relating to design, dimensions, mass, capacity, material, power or performance contained in any drawings, quotations and catalogues are compiled from and based on wide experience, but they shall not be construed as warranties or contractual obligations, unless they are expressly declared so to be in this quote. Due to the constant and ongoing research being conducted on the CoreMet equipment, CoreMet reserves the right to make product changes and improvements at any time without prior notice.

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- 9. DELIVERY:** The delivery periods and dates quoted in this quote are given in good faith, and based on present manufacturing and workshop loadings, availability of material and of labour and are subject to confirmation by CoreMet. In the event of an order, delivery date and periods will be calculated from the date on which an official order is accepted or from the date on which all technical, financial and contractual details have been finalised, enabling CoreMet to proceed uninterruptedly with the execution of the order, whichever is the later date. Unless specifically agreed to in writing no liability whatsoever can be accepted with regard to late delivery of equipment or failure to deliver equipment. Late delivery will therefore not constitute grounds for cancellation of any contract or for any claim for damages against CoreMet. Where specific dates for delivery are agreed to in writing, such delivery date shall be extended to the extent of any delays in delivery due to strikes, labour disputes, war, riot, civil commotion or inclement weather delays of manufacturers or transportation carriers, accidents, regulations or orders of any Government or local authority or to any other causes within or beyond CoreMet's control. Likewise, failure to make any one delivery from any cause whatsoever shall not affect or vitiate the contract as regards other deliveries. If the services of an independent carrier are used to effect delivery of the goods, the carrier shall be deemed to be the purchaser's agent irrespective of which party pays the costs of transport.
- 10. RISK:** Any goods required to be delivered by CoreMet in terms of the contract shall be received, offloaded, stored and properly protected by the purchaser. Risk of goods shall pass to the purchaser upon signature of delivery and shall be at his sole risk and he will be responsible for all damages, whether arising from fire, accident, whether, act of God, theft or any other cause.
- 11. SHORTAGES:** CoreMet shall not be responsible for any claim for shortages unless CoreMet receives notification of such claim within seven days after the receipt of the goods by the purchaser.
- 12. SUB-CONTRACTS:** CoreMet reserves the right to subcontract any part of the work quoted in the tender. However, in the event that any subcontractor is required to perform any form of work on the purchaser's site, CoreMet will inform the purchaser and the subcontractor will only be allowed to perform the required work on approval by the purchaser.
- 13. TESTING AND INSPECTION:** All goods supplied are carefully inspected and operationally tested where possible before dispatch. Should the purchaser require special test or tests in his presence or in the presence of his representative(s), these will be charged for at an additional price.
- 14. INTELLECTUAL PROPERTY RIGHTS AND CONFIDENTIALITY:**
- a) Nothing in this quote and terms and conditions of sale or a subsequent contract concluded in terms of this quote shall confer upon nor transfer to the purchaser any ownership in the patented process and design of the equipment. The purchaser shall not be entitled to transfer to any third party any of the design, process or knowhow obtained because of entering into a contract based on these terms and conditions and CoreMet making available any information, design or know-how.
 - b) Where CoreMet provides its drawings and designs to the purchaser, the purchaser undertakes to keep all such drawings and designs as supplied to it confidential and undertakes further not to use such drawings and designs for any other purpose other than for which they were intended. The parties agree that the design, process and know-how that shall be made available to the purchaser by CoreMet is of considerable economic and business value to CoreMet and a breach of the rights sought to be protected by this clause 14 would cause significant economic damages to CoreMet.

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- 15. CONSEQUENTIAL LOSS:** CoreMet will not be liable for any damages, whether direct, indirect or consequential including loss of profits or loss of use consequent upon or any way arising from goods or services rendered by CoreMet.
- 16. PROGRAMME DEFAULT:** Whilst we acknowledge the importance of time as a component of the contract, it is a condition of this quote that twenty one (21) days written notice be given to permit remedial action to commence for any default in terms of the agreed programme before cancellation of the contract be implemented.
- 17. TERMS OF PAYMENT:**
- a) The terms of payment, unless expressly agreed in writing to the contrary at the time of acceptance of the order by CoreMet, will be as follows: 40% deposit with order, 50% prior to delivery and 10% after commissioning. If the goods are not delivered or the equipment not put into use when ready, through no fault of CoreMet, as far as payment is concerned, the goods or equipment will be taken, to have been delivered or put into use and the payments will be due.
 - b) CoreMet reserves the right to debit interest on all overdue amounts at the prime overdraft rate plus 2% at the time that payment was due. Should any payment not be made on due date, CoreMet reserves the right to suspend work on the goods in which event all costs incurred because of such suspension shall be for the purchaser's account.
 - c) No machinery will be delivered unless the payment terms have been adhered to and NO exceptions will be made.
 - d) All prices quoted exclude Value Added Tax.
- 18. CANCELLATION:** Any cancellation of an order will be for the purchaser's account and the deposit aid will be forfeited to CoreMet.
- 19. LEGAL CONSTRUCTION:** The conditions specified herein and any contract to which they apply are governed by the law of the Republic of South Africa, and shall be subject to the jurisdiction of the South African courts.
- 20. ARBITRATION:** Any dispute or differences which may arise out of this tender or any contract based therein or about the interpretation of such tender or contract, shall be determined by arbitration in terms of the South African Arbitration Act No. 42 of 1965 or any statutory modification or re-enactment thereof.
- 21. DEBT COLLECTION:** Should it become necessary for CoreMet to employ the services of a debt collecting agency or any institution for the collection of unpaid accounts, any such fees and/or accounts payable, will be for the purchasers account.
- 22. BANK CHARGES:** All charges or fees, local and outside South Arica, pertaining to the payment of goods or the establishment of any method of payment, will be solely for the account of the purchaser. This includes, but is not limited to, negotiating and paying bank charges.
- 23. TAXES AND/OR DUTIES:** When goods leave the republic of South Africa and are thus destined for export, any duties and or taxes locally or in the country of destination, are for the account of the purchaser. These charges have not been allowed for in any quotation, implied or otherwise.
- 24. REPOSSESSION OF MACHINERY:** Should it become necessary for CoreMet to repossess any equipment of machinery, for whatever reason, the repossession cost, transportation cost and any other costs incurred, due to the repossession, is for the sole account of the purchaser.



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- 25. NOTES ON SAFETY REGULATIONS AND COMPLIANCE TO STANDARDS:** Compliance to any safety regulations or standards is and remains the responsibility of the purchaser. Should you have any special requirements please provide these enabling us to quote. Please refer to CoreMet operating manual for further information.
- 26. WARRANTY:** The purchase agreement is subject to the standard warranty conditions of CoreMet.