



**COLLABORATION AGREEMENT  
BETWEEN  
THE OFFICE OF REFERENCE MATERIALS  
OF THE MATERIALS MEASUREMENT LABORATORY  
THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
OF THE DEPARTMENT OF COMMERCE  
OF THE UNITED STATES OF AMERICA**

**AND  
THE CENTRO DE TECNOLOGIA MINERAL OF THE MINISTRY OF SCIENCE,  
TECHNOLOGY AND INNOVATION OF BRAZIL,**

**THIS COLLABORATION AGREEMENT (CA) IS ENTERED INTO BETWEEN:**

The Office of Reference Materials (ORM) of the Materials Measurement Laboratory (MML) of the National Institute of Standards and Technology (NIST) of the Department of Commerce of the United States of America and, being represented by Dr. Robert L. Watters, Jr. Associate Director for Measurement Services, ORM/MML/NIST

**AND**

The Centre for Mineral Technology (CETEM), of the Ministry of Science, Technology and Innovation of Brazil and, being represented by Dr. Maria Alice Cabral de Goes, CRM Program Coordinator, CETEM,

This CA is intended to describe the specific activity to co-develop Certified Reference Materials under the provisions of the NIST-CETEM MOU.

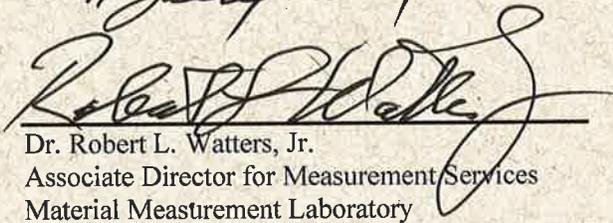
1. NIST and CETEM will collaborate to certify the renewal of NIST Standard Reference Material 2780a, Hard Rock Mine Waste and the certification of CETEM Reference Materials RMMG-1 and RMMG-2, hard rock mine wastes. The certification process will include the following specific activities:
  - a. Preparation and packaging of the material;
  - b. Design of the sampling and measurement protocols;
  - c. Designation of and invitation to a network of laboratories to participate in the analysis of SRM 2780a;
  - d. Homogeneity assessment of the candidate SRM;
  - e. Distribution of the samples to participants;
  - f. Analysis of the reported data;
  - g. Preparation of the final report;
  - h. Certification of the results.
2. Similar measurement protocols, participants, and analysis methods will be used concurrently to certify candidate reference materials of interest to CETEM.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Parties, have signed this MOU.

Signed in Gaithersburg, MD., in duplicate, and in Rio de Janeiro, Brazil, in duplicate, each in the English and Portuguese languages, both texts being equally authentic.

For the Office of Reference Materials, Material Measurement Laboratory, National Institute of Standards and Technology, USA:

11 July 2014



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Dr. Robert L. Watters, Jr.  
Associate Director for Measurement Services  
Material Measurement Laboratory

For the Centro de Tecnologia Mineral of the Ministry of Science, Technology and Innovation of Brazil

RS, 30/06/2014



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Dr. Maria Alice Cabral de Goes  
Certified Reference Material Program Director  
~~Maria Alice Cabral de Goes~~  
Chefe do Serviço de Tratamento  
de Minérios e Usina Piloto - SETU  
Slape n.º 1205609  
PO n.º 195 de 08/10/2012  
MCTI / CETEM



**MEMORANDUM OF UNDERSTANDING  
BETWEEN  
THE OFFICE OF REFERENCE MATERIALS  
OF THE MATERIALS MEASUREMENT LABORATORY  
OF THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY  
OF THE DEPARTMENT OF COMMERCE  
OF THE UNITED STATES OF AMERICA  
AND  
THE CENTRO DE TECNOLOGIA MINERAL OF THE MINISTRY OF SCIENCE,  
TECHNOLOGY AND INNOVATION OF BRAZIL,**

**THIS MEMORANDUM OF UNDERSTANDING (MOU) IS ENTERED INTO BETWEEN:**

The Office of Reference Materials (ORM) of the Materials Measurement Laboratory (MML) of the National Institute of Standards and Technology (NIST) of the Department of Commerce of the United States of America and, being represented by Dr. Robert L. Watters, Jr. Associate Director for Measurement Services, ORM/MML/NIST

AND

The Centre for Mineral Technology (CETEM), of the Ministry of Science, Technology and Innovation of Brazil and, being represented by Mr. Fernando Antonio Freitas Lins, Director, CETEM,

Both hereinafter referred to as the "Parties" collectively, or "Party", individually.

This MOU does not establish any legally binding obligations to the Parties. This MOU is a joint statement of intent of the Parties to collaborate as described.

**1. Purpose**

The objective of this MOU is to strengthen relations between the Parties and to provide a framework for cooperation in the development of certified reference materials and activities related to their preparation, characterization, and certification, and other related activities as may be jointly determined.

**2. Cooperative Activities**

The Parties mutually consent that the above mentioned cooperation may be carried out in the following forms:

- a. Exchanges of scientific and technical information and development activities and practices related to certified reference materials including exchange of documents
- b. Research and development activities in the form of experiments, tests and other technical collaborative efforts in disciplines of mutual interest;

- c. Exchange of personnel, including short term visits by individuals or teams to the facilities of the other party, assignments of visiting scientists to each party's laboratories for periods to be mutually arranged by the Parties;
- d. Exchange and provision of samples and materials, including standard reference materials, reference data;
- e. Joint academic exchange activities, including but not limited to co-organization of symposiums, seminars, workshops, by the Parties and;
- f. Such forms of cooperation and collaboration as mutually arranged.

### **3. Planning and Review of Activities**

The plans of cooperative activities to be carried out under this MOU will be periodically reviewed by the designated representatives of the Parties, and point of contact for the coordination of activities will be the Office of International Affairs for NIST and the International Relations Office for CETEM.

### **4. Safety**

The Parties shall ensure that appropriate policies and practices are in place to provide for the safety of their employees, the public, and the environment during the conduct of cooperative activities, which are consistent with applicable national laws and regulations.

### **5. Source of Funding**

Activities under this Memorandum are subject to and dependent upon availability of appropriated funds, personnel, and resources. Under the MOU, in the case of Guest Researchers as provided by Paragraph 2.c. above, the receiving Party will pay for facilities, supplies, and other research costs except for those that are required only to meet a Guest Researcher's special needs. The sending Party will continue to provide normal support for the exchange scientists, including base salary and other benefits. In most cases, any subsistence allowance provided to compensate for the differential costs of living will be provided by the sending Party. However, the receiving Party may choose to provide a portion or all the subsistence allowance if doing otherwise would prevent the exchange from occurring.

### **6. Intellectual Property Rights, Confidentiality and Publications. It is the intention of the parties that:**

- a. Either party will be free to use any scientific and technical information provided by the other party in the course of cooperative activities under this MOU for its own internal research and development purposes. Any commercial use of such information will be the subject of a separate Arrangement to be negotiated by the Parties on a case-by-case basis.
- b. No confidential or proprietary information will be exchanged under this MOU. If necessary, confidential or proprietary information will be exchanged under a separately negotiated Confidentiality or Non-Disclosure Agreement.
- c. Publications on joint activities should be coordinated; the research cooperation is to be clearly stated.

Neither Party intends to seek to patent inventions and findings jointly created within the scope of cooperative activities under this MOU.

#### **7. Specific Arrangements and Collaboration Agreements**

Specific projects may be identified whereby collaborative activities between the Parties would be mutually advantageous. Whenever more than the exchange of technical information is planned, such activities will be described in a "Specific Arrangement" or "Collaboration Agreement" under this MOU, which will set out, as appropriate, the activity, a work plan, staffing requirements, contact persons, cost estimates, funding source/s and other conditions which may include but are not limited to intellectual property and publication requirements where necessary. In case of any inconsistency between the paragraphs of this MOU and the terms of a Specific Arrangement or a Collaboration Agreement, the terms of the Specific Arrangement or Collaboration Agreement will prevail.

- a. Although the Parties intend to enter into Specific Arrangements/ Collaboration Agreements by virtue of discussions arising out of this MOU, this MOU does not commit either Party to enter into any such Specific Arrangement/Collaboration Agreement.
- b. The Specific Arrangement or Collaboration Agreement may contain non-legally binding and legally binding activities; the intention of the Specific Arrangement or Collaboration Agreement will expressly state the legal nature of the activities.

#### **8. Financial Obligation**

Cooperative activities under this MOU are subject to and dependent upon the availability of funds and personnel. Decisions on funding for joint activities will be made by mutual arrangement between the Parties. Neither party is required to administer or obligate funds pursuant to this MOU.

#### **9. Compliance with Export Controls and Regulations**

The Parties understand that goods and/or technology transferred during the course of this MOU may be subject to export control laws and that each Party is responsible for its own compliance with such laws.

#### **10. Duration**

- a. Subject to Paragraph 10.b. this MOU will remain in effect for a period of five (5) years from the date of signature. This MOU may be amended or extended by prior written consent between the Parties, with the understanding that either Party may terminate this MOU by sending at least six (6) months prior written notice to the other Party through the diplomatic channel. Notwithstanding the above, the cooperative activities which commenced prior to termination of this MOU will be subject to the terms of this MOU as if this MOU remained in effect after the date of termination of this MOU.
- b. The provisions in Paragraph 6 will remain in effect after the termination of this MOU or any Specific Arrangement/Collaboration Agreement.

#### **11. Dispute Resolution**

This MOU is not governed by international law. The parties will attempt, according to the provisions (where apposite) of each relevant Specific Arrangement/Collaboration Agreement, to resolve peacefully any disputes resulting from:

- a. Joint scientific cooperation under this MOU; or
- b. The interpretation or application of the terms of this MOU.

**12. Assignment**

This MOU does not create any legal rights or obligations. Consequently, neither Party may assign, transfer or otherwise dispose of this MOU in whole or in part or any benefits or commitments hereunder to any individual, firm, institution or corporation without obtaining prior written consent from the other Party, and such consent will not be unreasonably withheld.

IN WITNESS WHEREOF, the undersigned, being duly authorized by their respective Parties, have signed this MOU.

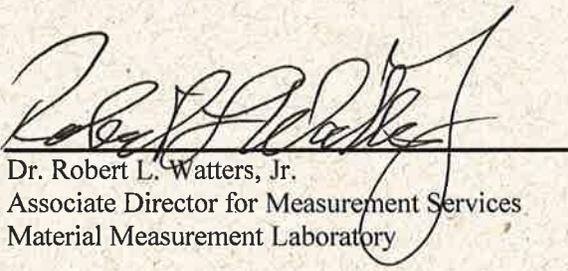
Signed in Gaithersburg, MD., in duplicate, and in Rio de Janeiro, Brazil, in duplicate.

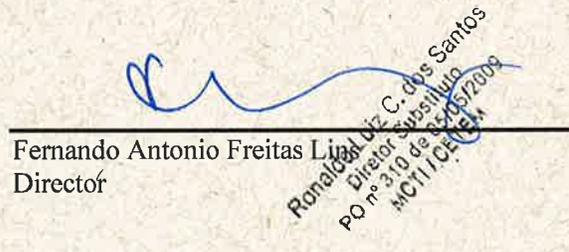
11 July 2014

For the Office of Reference Materials, Material Measurement Laboratory, National Institute of Standards and Technology, USA:

RS, 30/06/2014

For the Centro de Tecnologia Mineral of the Ministry of Science, Technology and Innovation of Brazil

  
Dr. Robert L. Watters, Jr.  
Associate Director for Measurement Services  
Material Measurement Laboratory

  
Fernando Antonio Freitas Lima  
Director

Ronald Luiz C. dos Santos  
Diretor Substituto  
PO nº 310 de 31/06/2009  
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