

# CANADA CENTRE FOR MINERAL AND ENERGY TECHNOLOGY

## REFERENCE URANIUM ORE CUP-1

### CERTIFICATE OF ANALYSIS

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Recommended Value	95% Confidence Interval
0.128% uranium	± 0.002%

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#### DESCRIPTION

CUP-1 is a sample of ore from the Schwartzwalder deposit near Golden, Colorado. CCRMP was approached by the Analytical Subcommittee of the Canadian Uranium Producers Metallurgical Committee to prepare this reference material. This ore is from the same source as the "Sill" ore which is known to be in radiochemical equilibrium with respect to the uranium-238 decay series.

The material was dry-ground to minus 74  $\mu\text{m}$ , blended and bottled in 200-g units. The stock was sampled systematically and analyzed for uranium by an X-ray fluorescence method to ensure that it was sufficiently homogeneous for use as a compositional reference material.

#### Approximate chemical composition

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Component	Mass %
Na <sub>2</sub> O	0.2
MgO	4.7
Al <sub>2</sub> O <sub>3</sub>	7.9
SiO <sub>2</sub>	39.
S	1.2
K <sub>2</sub> O	6.4
CaO	10.
TiO <sub>2</sub>	0.5
MnO	0.7
Fe <sub>2</sub> O <sub>3</sub>	12.
ZnO	0.1
MoO <sub>3</sub>	0.1

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#### CERTIFICATION

CUP-1 was characterized by an interlaboratory analysis program. The recommended value for uranium is the unweighted mean of 10 sets of results from 9 laboratories (60 results in all). The within- and between-laboratories standard deviations are 0.0033% and 0.0024%, respectively.

#### INSTRUCTIONS FOR USE

CUP-1 should be used 'as is', without drying.

#### LEGAL NOTICE

The Canadian Certified Reference Materials Project (CCRMP) has prepared this reference material and evaluated the analytical data of the interlaboratory certification program to the best of its ability. The Purchaser by receipt hereof releases and indemnifies CCRMP from and against all liability and costs arising out of the use of this material and information.

#### REFERENCE

The preparation and certification procedures used for CUP-1 are described in the CANMET report, CCRMP 86-2E "CUP-1: A Certified Uranium Reference Ore", which is available at no charge on request to:

Coordinator, CCRMP  
CANMET, EMR  
555 Booth Street  
Ottawa, Ontario  
K1A 0G1  
Canada

Pour obtenir la version française du présent certificat d'analyse, prière de s'adresser au Coordonnateur du PCMRC.