Energy, Mines and Resources Canada

CANADA CENTRE FOR MINERAL AND ENERGY TECHNOLOGY

REFERENCE URANIUM ORE RL-1

CERTIFICATE OF ANALYSIS

Consensus Value	95% Confidence Interval
U	0.201 ± 0.006%
Ni	185 ± 5 µg/g
As	19.6 ± 1.1 µg/g

DESCRIPTION

RL-1 is a sample of ore typical of the uranium deposit at Rabbit Lake, Saskatchewan. The host rock is a siliceous dolomite that has been highly altered and fractured. The orebody consists of a high-grade zone of uranium mineralization in the centre of a brecciated zone varying to low grade in the lesser brecciated perimeter. The raw material was dry-ground to minus 74 µm, blended and bottled in 100-g units. The stock was sampled systematically and analyzed for uranium by a neutron activation analytical procedure and for nickel by an X-ray fluorescence procedure to demonstrate homogeneity sufficient for use as a compositional reference material.

Approximative chemical composition

Element	Mass %
Si	25.3
Mg	9.2
Al	6.5
Fe	2.3
Ca	1.8
C, total	0.81
Ti	0.25
K	0.22
U	0.20
S	0.13
Na	0.06
Ni	185 µg/g
As	19.6 µg/g
L.O.I.	10.2
H_2O (105°C)	0.85

CERTIFICATION

RL-1 was characterized by an interlaboratory analysis program. The recommended values are the unweighted means of the following:

Constituent	Number of laboratories	Number of sets of results	Number of results
U	10	13	67
Ni	11	12	61
As	11	12	60

	Standard deviation	
Constituent	Between-laboratories	Within-laboratory
U	0.009	0.006; %
Ni	7.3	5.0; µg/g
As	1.6	1.0; µg/g

INSTRUCTIONS FOR USE

The recommended values for RL-1 pertain to an "as is" basis.

LEGAL NOTICE

The Canadian Certified Reference Materials Project has prepared this reference material and statistically evaluated the analytical data of the interlaboratory certification program to the best of its ability. The Purchaser by receipt hereof releases and indemnifies the Canadian Certified Reference Materials Project 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 RL-1 are given in CANMET Report 85-4E "RL-1: A Certified Uranium Reference Ore" which is available free of charge on application 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 PCMR.