

DECLARATION OF QUALITY

METRANAL® 1

Quality Control Material (QCM)

Matrix: River sediment, (metals)
Powdered material, grain size < 100 µm

The material is primarily designed for internal and external quality control purposes in the determination of total element contents and contents of element fraction extractable by the below described conventional procedures in soils and materials of similar matrix (quality control charts, inter-laboratory comparisons, estimation of bias etc.) but not for ensuring traceability of measurements and calibration purposes.

Analyte	Total sample decomposition		Aqua regia extraction *	
	Concentration (mg/kg)**	Uncertainty (mg/kg)***	Concentration (mg/kg)**	Uncertainty (mg/kg)***
Ag	3.10	0.38	2.50	0.32
As	29.0	2.0	24.1	3.2
Ba	522	104	275	22
Be	2.65	0.80	1.58	0.32
Bi	0.72	0.14	0.69	0.14
Cd	3.10	0.68	2.66	0.54
Co	15.6	1.4	12.5	1.5
Cr	118	12	93.0	14.0
Cu	97.0	10	91.2	8.0
Hg	1.30	0.10	1.19	0.15
Mn	1370	140	1330	106
Mo	1.13	0.12	0.97	0.02
Ni	45.0	8.2	35.4	5.0
Pb	93.2	10.0	82.4	16.4
Sb	2.52	0.50	1.73	0.34
Se	1.02	0.20	0.74	0.14
Sn	8.75	1.74	7.37	1.48
V	73.0	10.2	43.2	5.6
Zn	520	68	465	64

* According to DIN 38414-S7
 ** Dry mass at 105 °C
 *** Expanded combined uncertainty (k=2)

The property values were assigned in 5 – 25 experienced accredited laboratories (ISO 17025) by using validated analytical methods.

The sample is stabilized by radiation (25 kGy).

RM is valid until expiry date indicated in the Declaration, provided the RM is properly stored in the original closed bottle and professionally handled. This Declaration is nullified if the RM is damaged, contaminated, or otherwise modified.

Analytika®, spol. s r.o. will monitor this RM over the period of its validity. If substantive changes of reference values occur, Analytika®, spol. s r.o. will notify the purchaser.

Packing: 80 g in an amber HDPE bottle

Batch No.: 009

Declaration issue date: 18th December 2015

Declaration revision date: 22nd June 2020

Expiration: 31st December 2022

Producer: ANALYTIKA®, spol. s r.o.

Production unit Manager: Mgr. Mirka Petránková

Signed:



Declaration version n. 5

Declaration Revision History:

22nd June 2020 (minor editorial changes, extension of expiry period)

16th December 2019 (Extension of the period of validity)

5th December 2017 (Editorial changes)

3rd August 2016 (Extension of the period of validity; Editorial changes)

18th December 2015 (Original declaration issue date)