

Certified Reference Materials

**Produced and certified under DANAK
accreditation no. 535 according to ISO Guide 34**

Certified reference materials provide more reliable and traceable documentation.

VKI Certified Reference Materials consist of a broad range of certified reference materials that are used to improve and document the analytical quality of environmental laboratories.



Wastewater

- General water quality parameters
- Nutrients
- Trace elements/metals



Surface water, fresh water and marine water

- Nutrients
- Trace elements/metals
- Nutrients in natural marine water



Drinking water and groundwater

- Major components drinking water
- TOC in natural water
- Trace elements/metals
- Bromide and iodide



Sludge and Soil

- Trace elements/metals
- Organic contaminants

Sludge and soil



Trace elements/metals

VKI Reference Material QC LOAM SOIL B										
Parameter	As	Cd	Cr	Cu	Hg	Ni	Pb	Zn	K	Loss on ignition
VKI Reference Material	CONCENTRATION LEVELS									
Unit	mg/kg Dry wt.							g/kg Dry wt.		
QC LOAM SOIL B	5	0.3	50	20	0.1	10	100	50	1	30

VKI reference material QC Sludge B												
Parameter	As	Cd	Cr	Cu	Hg	Ni	Pb	Zn	K	Total N	Total P	LoI*
	CONCENTRATION LEVELS											
Unit	mg/kg DW							g/kg DW				
Aqua regia digestion	5	1	40	150	0,5	20	30	500	5	50	25	600
Nitric acid digestion			30			15						
Parameter	Ag	Co	Mn	Mo	Sb	Tl	U	V	Al	Ca	Fe	Mg
	CONCENTRATION LEVELS											
Unit	mg/kg DW							g/kg DW				
Aqua regia digestion	1	3	300	5	2	0,2	1	15	5	100	20	5
Nitric acid digestion												

* Loss on ignition

Organic micropollutants

VKI REFERENCE MATERIAL QC ORGANIC COMPONENTS IN MUNICIPAL SLUDGE																									
Individual components																				Sum parameters					
Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Flouranthene	Flourene	Indeno(1,2,3-cd)pyrene	Phenanthrene	Pyrene	D(2-ethylhexyl)phthalat (DEHP)	Nonylphenol	Nonylphenolmonoethoxylat	Nonylphenoldiethoxylat	C ₁₀ -LAS	C ₁₁ -LAS	C ₁₂ -LAS	C ₁₃ -LAS	LAS	ΣPAH	NPE	DEHP
CONCENTRATION LEVELS (mg/kg)																									
0.1	0.05	0.5	0.5	0.5	0.2	1	0.5	<0.1	1	0.2	0.5	1	1	20	100	5	2	50	500	1000	500	2000	5	100	20
VKI REFERENCE MATERIAL QC ENDOCRINE DISRUPTORS IN MUNICIPAL SLUDGE																									
CONCENTRATION LEVELS (mg/kg)																									
														20	100	5	2							100	20

