



**The IAEA-CU-2009-03 world wide open proficiency test on the determination  
of natural and artificial radionuclides in moss-soil and spiked water**

**Laboratory's Final Report  
Laboratory Code: 124 (CuNo: 13949)  
Total Pages (with cover): 8**



# Reporting Form F-01

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

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# Reporting Form F-02

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

## Data Sheet, Laboratory No. 124, Sample 01, Moss-Soil, alpha/beta

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Sr-90			
Po-210			
Pb-210			
Ra-226			
U-234			
U-238			
Pu-238			
Pu-(239+240)			
Am241			

(\*) Activity of each measured nuclide

(\*\*) Standard combined uncertainty of individual determination expressed in (Bq/kg)

(\*\*\*) Detection limit should be reported in the same units as the results (Bq/kg)

# Reporting Form F-02

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

## Data Sheet, Laboratory No. 124, Sample 01, Moss-Soil, gamma

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
K-40	599.3	24.6	3.17
Co-60			0.336
Zn-65			1.07
Cs-134			9.21
Cs-137	413.7	15.8	0.299
Tl-208	11.94	0.49	4.08
Pb-210	408.8	54.5	23.2
Pb-212	34.96	1.59	9.22
Pb-214	20.07	0.95	6.13
Bi-214	18.70	0.97	9.36
Ra-226	20.41	2.05	8.16
Ac-228	35.56	1.46	9.68
Th-234	29.68	4.11	7.91
Am-241			1.24

(\*) Activity of each measured nuclide

(\*\*) Standard combined uncertainty of individual determination expressed in (Bq/kg)

(\*\*\*) Detection limit should be reported in the same units as the results (Bq/kg)

# Reporting Form F-02

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

## Data Sheet, Laboratory No. 124, Sample 02, Spiked Water

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Co-57	6.399	0.479	2.38
Co-60	6.406	0.288	0.274
Zn-65			1.25
Cs-134	12.25	0.42	7.50
Cs-137	9.754	0.465	0.282
Mn-54			0.310
Ba-133			9.55
Eu-152	11.08	0.54	3.16

(\*) Activity of each measured nuclide

(\*\*) Standard combined uncertainty of individual determination expressed in (Bq/kg)

(\*\*\*) Detection limit should be reported in the same units as the results (Bq/kg)

# Reporting Form F-02

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

## Data Sheet, Laboratory No. 124, Sample 03, Spiked Water

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Co-57	2.249	0.240	1.76
Co-60	1.904	0.128	0.186
Zn-65			0.729
Cs-134	4.125	0.179	3.14
Cs-137	3.179	0.197	0.181
Mn-54			0.226
Ba-133			6.74
Eu-152	3.175	0.268	2.17

(\*) Activity of each measured nuclide

(\*\*) Standard combined uncertainty of individual determination expressed in (Bq/kg)

(\*\*\*) Detection limit should be reported in the same units as the results (Bq/kg)

# Reporting Form F-02

IAEA-CU-2009-03 world wide open proficiency test on the determination of natural and artificial radionuclides in moss-soil and spiked water.

## Data Sheet, Laboratory No. 124, Sample 04, Spiked Water

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Co-57	6.386	0.376	1.56
Co-60	5.970	0.213	0.179
Zn-65			0.800
Cs-134	11.95	0.34	4.80
Cs-137	9.757	0.363	0.178
Mn-54			0.219
Ba-133			6.43
Eu-152	10.14	0.41	2.07

(\*) Activity of each measured nuclide

(\*\*) Standard combined uncertainty of individual determination expressed in (Bq/kg)

(\*\*\*) Detection limit should be reported in the same units as the results (Bq/kg)

