



The IAEA-TEL-2012-03 world wide open proficiency test on the determination of radionuclides in water, hay and soil

**Laboratory's Final Report
Laboratory Code: 5 (CuNo: 13949)
Total Pages (with cover): 7**



Reporting Form F-01

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Address Information, Laboratory No. 5

Sample requested by: Laboratory No. 5 (13949)

*Mr. Christos Ath. Maramathas
Nuclear Technology & Environmental Laboratory
teleDOS Ltd
102 Apostolou Paulou Str.
Corinth
GR-20100
Greece*

*Tel: (+30) 6974867477
Fax: (+30) 2741084349
e-mail: cmaramat[a.t.]teledos.eu*

Name of Analyst: **...Christos Ath. Maramathas**

Name of Supervisor: **...There is no Supervisor**

Collaborators: **...Sofia Con. Papadopoulou**

Please sign and send back to:

**Aurelien Pitois
Department of Nuclear Sciences and Applications
Terrestrial Environment Laboratory
Agency's Laboratories Seibersdorf
International Atomic Energy Agency
A-2444 Seibersdorf - Austria
Tel: + 43 1 2600 28226
Fax: + 43 1 2600 7 28226
Email: A.R.R.Pitois@iaea.org
<http://nucleus.iaea.org/rpst/>**

Reporting Form F-02

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Data Sheet, Laboratory No. 5, Sample 01

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Cr-51	152000		below_lod
Co-57	1.72		below_lod
Co-60	1.02		below_lod
Zn-65	15.7		below_lod
Sr-85	78.3		below_lod
Cs-134	68.78	6.44	
Cs-137	1.27		below_lod
Ce-139	5.92		below_lod
Eu-152	109.1	4.6	
Am-241	1.25		below_lod

(*) Activity of each measured nuclide

(**) Combined standard uncertainty of individual determination expressed in (Bq/kg)

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

Reporting Form F-02

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Data Sheet, Laboratory No. 5, Sample 02

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Cr-51	68100		below_lod
Co-57	0.684		below_lod
Co-60	0.493		below_lod
Zn-65	4.83		below_lod
Sr-85	37.3		below_lod
Cs-134	0.638		below_lod
Cs-137	100.6	3.2	
Ce-139	2.52		below_lod
Eu-152	4.22		below_lod
Am-241	125.6	4.6	

(*) Activity of each measured nuclide

(**) Combined standard uncertainty of individual determination expressed in (Bq/kg)

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

Reporting Form F-02

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Data Sheet, Laboratory No. 5, Sample 03

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Co-60	202.1	5.1	
Cs-137	124.5	2.8	

(*) Activity of each measured nuclide

(**) Combined standard uncertainty of individual determination expressed in (Bq/kg)

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

Reporting Form F-02

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Data Sheet, Laboratory No. 5, Sample 04

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
Cs-134	246.0	22.8	
Cs-137	731.9	22.5	

(*) Activity of each measured nuclide

(**) Combined standard uncertainty of individual determination expressed in (Bq/kg)

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

Reporting Form F-02

IAEA-TEL-2012-03 worldwide open proficiency test on the determination of radionuclides in water, hay and soil

Data Sheet, Laboratory No. 5, Sample 05

Table of Results

Analyte	Activity (*) [Bq/kg]	Combined Standard Unc [Bq/kg](**)	Minimum(***) Detection limit [Bq/kg]
K-40	187.2	10.8	
Cs-137	97.83	3.13	
Tl-208	9.402	0.500	
Pb-210	521.9	18.0	
Pb-212	27.11	1.19	
Ac-228	28.75	1.50	
Sr-90			
Po-210			
U-238	20.16	2.19	
Pu-239+240			
Am-241	1.587	0.283	

(*) Activity of each measured nuclide

(**) Combined standard uncertainty of individual determination expressed in (Bq/kg)

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