

Table-1. Summary of UIIL Inter Laboratory Practice from 1st to 6th.

No. of Test	1 st	2 nd	3 rd	4 th	5 th	6 th
Discrimination	Heavy metals in powder	PAHs and heavy metals in powder	POPs and heavy metals in powder (sediment)	Metals in Water	Cation and anion in Natural Water	Metals in Saline Water
Media	Sediment (CRM)	Soil (Partially elements added)	Sediment (Natural)	Water (Elements added)	Natural water (Bottled water)	Saline Water (Elements added)
Date of Sample Distribution	November 2005	April 2008	January 2009	February 2010	April 2011	February 2012
Sample Preparation	AIST* ¹	Wibby Environmental, Inc.	JEMCA	JEMCA	JEMCA	JEMCA
Target Elements	5 metals; Cr Hg Ni Pb Zn	12 PAHs compounds; acenaphthene acenaphthylene anthracene benzo(a)anthracene benzo(b)fluoranthene benzo(k)fluoranthene benzo(a)pyrene chrysene fluoranthene fluorene phenanthrene pyrene 8 metals; As Cd Cr Cu Hg Ni Pb Zn	22 POPs related compounds; hexachlorobenzene aldrin dieldrin endrin <i>o,p</i> -DDD, <i>p,p</i> -DDD <i>o,p</i> -DDE, <i>p,p</i> -DDE <i>o,p</i> -DDT, <i>p,p</i> -DDT <i>cis</i> -chlordane <i>trans</i> -chlordane oxy-chlordane <i>cis</i> -nonachlor <i>trans</i> -nonachlor heptachlor <i>cis</i> -heptachlorepoide <i>trans</i> -heptachlorepoide α -HCH, β -HCH, γ -HCH, δ -HCH 8 metals; As Cd Cr Cu Hg Ni Pb Zn	21 metals; Ag Al As B Ba Co Cr Cs Cu Fe Hg Li Mn Mo Ni Pb Sb Se Ti V Zn	4 cations; K ⁺ Na ²⁺ Ca ²⁺ Mg ²⁺ 4 anions; Cl ⁻ F ⁻ NO ₃ ⁻ SO ₄ ²⁻	6 metals; Cd Cr Mn Pb Cu Ni
Number of Participants* ²	235	144	102	152	115	150
Day of Report Issuing	July 2006	August 2008	August 2009	August 2010	August 2011	August 2012

*¹ AIST (The National Institute of Advanced Industrial Science and Technology). Following samples were bottled in smaller bottle. This is a CRM (Certified Reference Material), however the median of all reported values of participants are provided as assigned value and the certified value are noted on the report with CRM provider's name.

NMIJ CRM (CRM of National Metrology Institute of Japan, AIST)

7302-a Trace Elements in Marine Sediment (For analyzing hazardous metal)

7303-a Trace Elements in Lake Sediment (For analyzing hazardous metal)

*² Participants are not required to analyze all elements, they are able to participate to the test from at least one element to analyze. By now, Japan, USA, Canada, Spain, the Netherlands, Belgium, Mexico and Korea have participated to this test.