

## PROFICIENCY TESTING PROVIDER (PTP) ACCREDITATION PROGRAM

### Scope of Accreditation

Accredited Laboratory No. 613

**Legal Name of Accredited Laboratory:** **Institut national de santé publique du Québec, Centre de toxicologie du Québec**

Location Name or Operating as (if applicable): Laboratoire de toxicologie

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<b>SCC File Number:</b>	15777
<b>Provider:</b>	BNQ-EL
<b>Provider File Number:</b>	35270-1
<b>Accreditation Standard(s):</b>	ISO/IEC 17043:2010
<b>Proficiency Testing Scheme/Field of Testing:</b>	Toxicology
<b>Program Specialty Area:</b>	Proficiency Testing Provider
<b>Initial Accreditation:</b>	2007-01-30
<b>Most Recent Accreditation:</b>	2021-04-04
<b>Accreditation Valid to:</b>	2023-01-30

*Remarque: La présente portée d'accréditation existe également en français. La version française est publiée séparément.*

*Note: This scope of accreditation is also available in French as a separately issued document.*

**PROFICIENCY TESTING PARAMETERS FOR WHICH THE PROVIDER IS ACCREDITED**

**Metals:**

**Programme de comparaisons interlaboratoires pour les métaux en milieu biologique/  
Interlaboratory Comparison Program for Metals in Biological Matrices (PCI)**

<b>Analyte / Biological matrix</b>	<b>Concentration range (lower-upper)</b>	<b>Concentration range (lower-upper)</b>
Serum Aluminum	0,40-10 µmol/L	11 - 270 µg/L
Urine Arsenic (Inorganic)	0,30-10 µmol/L	22 - 750 µg/L
Urine Arsenic (Total)	0,10-20 µmol/L	7.5 - 1500 µg/L
Blood Cadmium	5,0-150 nmol/L	0.56 - 17 µg/L
Urine Cadmium	5,0-150 nmol/L	0.56 - 17 µg/L
Urine Chromium	20-1500 nmol/L	1.0 - 78 µg/L
Serum Copper	1,0-50 µmol/L	64 - 3200 µg/L
Urine Copper	0,10-20 µmol/L	6.4 - 1300 µg/L
Urine Fluoride	10-1500 µmol/L	190 - 28000 µg/L
Urine Iodide	0,10-3,1 µmol/L	13 - 390 µg/L
Blood Lead	0,050-5,0 µmol/L	0.27 - 6.9 µg/L
Urine Lead	0,010-5,0 µmol/L	1.0 - 100 µg/L
Serum Manganese	5,0-125 nmol/L	1.0 - 50 µg/L
Blood Mercury (inorganic)	5,0-500 nmol/L	0.40 - 300 µg/L
Blood Mercury (organic)	5,0-250 nmol/L	10 - 1000 µg/L
Urine Mercury	2,0-1500 nmol/L	2.1 - 1000 µg/L
Serum Selenium	0,50-5,0 µmol/L	39 - 390 µg/L
Urine Selenium	0,30-5,0 µmol/L	24 - 390 µg/L
Serum Zinc	2,0-50 µmol/L	130 - 3300 µg/L
Urine Zinc	1,0-25 µmol/L	65 - 1600 µg/L

**Metals:**

**Programme d'assurance qualité externe multiélément QMEQAS/  
Quebec Multielement External Quality Assessment Scheme (QMEQAS)**

Analyte	Concentration range (lower-upper) Hair (SI units)	Concentration range (lower-upper) Blood (SI units)	Concentration range (lower-upper) Serum (SI units)	Concentration range (lower-upper) Urine (SI units)
Aluminum	0,29-7,5 µmol/g	2,0-11 µmol/L	0,40-10 µmol/L	2,0-11 µmol/L
Antimony	1,6-21 nmol/g	2,0-160 nmol/L	1,0-65 nmol/L	1,0-65 nmol/L
Arsenic	0,80-54 nmol/g	20-530 nmol/L	30-530 nmol/L	0,10-20 µmol/L
Barium	0,35-185 nmol/g	2,0-70 nmol/L	10-210 nmol/L	5,0-300 nmol/L
Beryllium	0,0040-0,12 µmol/g	0,30-2,2 µmol/L	0,20-3,3 µmol/L	0,20-1,6 µmol/L
Bismuth	0,47-24 nmol/g	0,50-140 nmol/L	0,50-140 nmol/L	2,0-235 nmol/L
Cadmium	0,53-90 nmol/g	5,0-150 nmol/L	2,0-150 nmol/L	5,0-150 nmol/L
Chromium	7,6-290 nmol/g	10-190 nmol/L	10-190 nmol/L	20-1500 nmol/L
Cobalt	1,6-170 nmol/g	4,0-165 nmol/L	5,0-130 nmol/L	5,0-250 nmol/L
Copper	0,0030-6,3 µmol/g	2,0-75 µmol/L	1,0-50 µmol/L	0,10-20 µmol/L
Iodine	0,0075-0,080 µmol/g	0,30-1,1 µmol/L	0,010-1,1 µmol/L	0,10-3,1 µmol/L
Lead	0,00020-0,15 µmol/g	0,050-5,0 µmol/L	0,050-1,2 µmol/L	0,010-5,0 µmol/L
Manganese	1,8-275 nmol/g	50-900 nmol/L	5,0-125 nmol/L	5,0-180 nmol/L
Mercury	2,4-50 nmol/g	5,0- 500 nmol/L	5,0-50 nmol/L	2,0-1500 nmol/L
Molybdenum	0,52-21 nmol/g	11-150 nmol/L	3,2-150 nmol/L	100-10400 nmol/L
Nickel	1,7-260 nmol/g	30-200 nmol/L	26-500 nmol/L	10-1000 nmol/L
Platinum	0,25-2,6 nmol/g	0,50-25 nmol/L	0,50-5,0 nmol/L	3,0-25 nmol/L
Selenium	0,0075-0,13 µmol/g	0,70-10 µmol/L	0,50-5,0 µmol/L	0,30-5,0 µmol/L
Silver	0,46-38 nmol/g	3,0-70 nmol/L	5,0-45 nmol/L	10-100 nmol/L
Tellurium	0,78-16 nmol/g	16-90 nmol/L	20-90 nmol/L	4,0-390 nmol/L

Thallium	0,095-2,5 nmol/g	1,0-70 nmol/L	0,20-48 nmol/L	1,0-390 nmol/L
Thorium	8,5-44 nmol/g	1,0-21 nmol/L	0,10-21 nmol/L	0,050-2,1 nmol/L
Tin	25-130 nmol/g	5,0-250 nmol/L	20-80 nmol/L	2,0-1500 nmol/L
Uranium	0,12-8,4 nmol/g	0,22-4,2 nmol/L	0,45-4,2 nmol/L	0,30-20 nmol/L
Vanadium	3,9-40 nmol/g	1,0-98 nmol/L	1,0-39 nmol/L	10-580 nmol/L
Zinc	0,030-23 µmol/g	20-220 µmol/L	2,0-50 µmol/L	1,0-25 µmol/L

**Programme d'assurance qualité externe multiélément QMEQAS/  
Quebec Multielement External Quality Assessment Scheme (QMEQAS)**

Analyte	Concentration range (lower-upper) Hair (µg/g)	Concentration range (lower-upper) Blood (µg/L)	Concentration range (lower-upper) Serum (µg/L)	Concentration range (lower-upper) Urine (µg/L)
Aluminum	7.8 - 200	50 - 300	11 - 270	54 - 300
Antimony	0.19 - 2.6	0.24 - 19	0.12 - 7.9	0.12 - 7.9
Arsenic	0.050 - 4.1	0.32 - 7.6	0.54 - 4.9	1.1 - 11
Barium	0.060 - 4.0	1.5 - 40	2.2 - 40	7.5 - 1500
Beryllium	0.048 - 25	0.27 - 10	1.4 - 29	0.69 - 41
Bismuth	0.036 - 1.1	2.7 - 20	1.8 - 30	1.8 - 14
Cadmium	0.10 - 5.0	0.10 - 29	0.10 - 29	0.42 - 49
Chromium	0.060 - 10	0.56 - 17	0.22 - 17	0.56 - 17
Cobalt	0.094 - 10	0.24 - 10	0.29 - 7.7	0.29 - 15
Copper	0.40 - 15	0.52 - 10	0.52 - 10	1.0 - 78
Iodine	0.19 - 400	130.0 - 4800	64 - 3200	6.4 - 1300
Lead	3.0 - 15	0.59 - 30	2.4 - 10	0.24 - 180
Manganese	1.0 - 10	38.0 - 140	1.3 - 140	13 - 390
Mercury	0.10 - 15	2.7 - 49	0.27 - 6.9	0.27 - 10
Molybdenum	0.48 - 10	1.0 - 100	1.0 - 10	0.40 - 300
Nickel	0.050 - 2.0	1.1 - 14	0.31 - 14	9.6 - 1000
Platinum	0.10 - 15	1.8 - 12	1.5 - 29	0.59 - 59
Selenium	0.041 - 31	10.0 - 1000	10 - 250	2.1 - 1000
Silver	0.049 - 0.51	0.10 - 4.9	0.10 - 1.0	0.59 - 4.9
Tellurium	0.59 - 10	55.0 - 790	39 - 390	24 - 390
Thallium	0.10 - 2.0	2.0 - 11	2.6 - 11	0.51 - 50

Thorium	0.019 - 0.5	0.20 - 14	0.041 - 10	0.20 - 80
Tin	2.0 - 10	0.23 - 4.9	0.023 - 4.9	0.012 - 0.49
Uranium	0.029 - 2.0	0.052 - 1.0	0.11 - 1.0	0.071 - 4.8
Vanadium	0.20 - 2.0	0.051 - 5.0	0.051 - 2.0	0.51 - 30
Zinc	2.0 - 1500	1300 - 14000	130 - 3300	65 - 1600

### Organic Contaminants:

### Programme de comparaisons interlaboratoires "AMAP Ring Test" pour les polluants organiques persistants dans le sérum humain/ AMAP Ring Test for Persistent Organic Pollutants in Human Serum

#### CONGENERS OF POLYCHLORINATED BIPHENYLS (microgram/L)

Analyte	Concentration range (lower-upper)
PCB IUPAC # 28	0,20 - 1,0
PCB IUPAC # 74	0,10 - 0,80
PCB IUPAC # 99	0,10 - 1,0
PCB IUPAC # 105	0,050 - 0,50
PCB IUPAC # 118	0,10 - 1,0
PCB IUPAC # 138	0,10 - 2,0
PCB IUPAC # 153	0,10 - 2,0
PCB IUPAC # 170	0,10 - 1,0
PCB IUPAC # 180	0,10 - 2,0

#### BROMINATED FLAME RETARDANTS (microgram/L)

Analyte	Concentration range (lower-upper)
PBDE IUPAC # 28	0,050 - 1,0
PBDE IUPAC # 47	0,10 - 2,0
PBDE IUPAC # 99	0,050 - 1,0
PBDE IUPAC # 100	0,050 - 1,0
PBDE IUPAC # 153	0,050 - 1,0

PBDE IUPAC # 154	0,050 - 1,0
PBDE IUPAC # 183	0,10 - 1,0
PBDE IUPAC # 209	0,10 - 2,0

#### CHLORINATED PESTICIDES (microgram/L)

Analyte	Concentration range (lower-upper)
Beta-HCH	0,10 - 2,0
Dieldrin	0,050 - 2,0
Gamma-HCH	0,050 - 2,0
Heptachlor	0,050 - 2,0
Heptachlor epoxide	0,050 - 2,0
Hexachlorobenzene (HCB)	0,10 - 2,0
Oxychlorane	0,10 - 2,0
p,p'-DDE	0,50 - 10
p,p'-DDT	0,10 - 2,0
Toxaphene Parlar # 26	0,020 - 0,50
Toxaphene Parlar # 50	0,020 - 0,50
Trans-nonachlor	0,10 - 5,0

#### PERFLUORINATED COMPOUNDS (microgram/L)

Analyte	Concentration range (lower-upper)
PFHxA	0,50 - 10
PFHxS	0,50 - 25
PFNA	0,20 - 5,0
PFOA	0,50 - 30
PFOS	1,0 - 200

PFUdA	0,20 - 5,0
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**Notes:**

**ISO/IEC 17043:2010** : Conformity assessment-General requirements for proficiency testing

This document forms part of the Certificate of Accreditation issued by the Standards Council of Canada (SCC). The original version is available in the Directory of Accredited Laboratories on the SCC website at [www.scc.ca](http://www.scc.ca).

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 Vice-President, Accreditation Services  
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