



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

Eurofins Frontier Global Sciences, LLC.
11720 North Creek Parkway North, Suite 400, Bothell, WA 98011

(Hereinafter called the Organization) and hereby declares that Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2005

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (as outlined by the joint ISO-ILAC-IAF Communiqué dated January 2009):

Chemical and Environmental Testing of Metals in Pharmaceuticals, Nutraceuticals, Food, and Related Products, Biological Tissue, Aqueous Solutions and Solids, Air, and Petroleum Products
(As detailed in the supplement)

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President/Operations Manager

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

Initial Accreditation Date:

March 2, 2010

Issue Date:

December 14, 2017

Expiration Date:

December 14, 2019

Revision Date:

June 13, 2018

Accreditation No.:

66887

Certificate No.:

L17-540-R1

The validity of this certificate is maintained through ongoing assessments based on a continuous accreditation cycle. The validity of this certificate should be confirmed through the PJLA website: www.pjilabs.com



Certificate of Accreditation: Supplement

Eurofins Frontier Global Sciences, LLC.

11720 North Creek Parkway North, Suite 400, Bothell, WA 98011
 Contact Name: David Wunderlich Phone: 425-686-3578

Accreditation is granted to the facility to perform the following testing:

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Chemical ^F	Solid Pharmaceuticals, Nutraceuticals, and Food Products	Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Tungsten, Vanadium, Zinc	AOAC 993.14 (prep EPA 3051 and SOP5145) USP 233 (ICP-MS)	0.01 mg/kg to 500 mg/kg
		Metals: Aluminum, Arsenic, Boron, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Mercury, Nickel, Potassium, Selenium, Sodium, Zinc	AOAC 2013.06 (prep EPA 3051 and SOP5145)	0.01 mg/kg to 500 mg/kg
		Arsenite, Inorganic Arsenic	EPA 1632A (prep EPA 1632A)	0.01 mg/kg to 5 mg/kg
		Chromium (VI)	SM 3500-Cr (prep EPA 3060 Mod) EPA 7196A (prep EPA 3060 Mod)	2 mg/kg to 100 mg/kg
		Selenate, Selenite, Selenocyanate	SOP2834 (speciation by LC-ICP-MS) (prep SOP2993)	8 mg/kg to 200 mg/kg
		Methyl Mercury	EPA 1630 (prep SOP5134)	0.05 ng/g to 50 ng/g
		Mercury	EPA 1631B (prep EPA 1631B)	1 ng/g to 1 000 ng/g



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Chemical ^F	Liquid Pharmaceuticals, Nutraceuticals, and Food Products	Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Tungsten, Vanadium, Zinc	AOAC 993.14 (Prep SOP2836) USP 233 (ICP-MS)	0.02 µg/L to 10 000 µg/L
		Methyl Mercury	EPA 1630 (prep EPA-1630)	0.05 ng/L to 40 ng/L
		Mercury	EPA 1631E (prep EPA 1631E)	0.5 ng/L to 400 ng/L
		Arsenite, Inorganic Arsenic	EPA 1632A (prep EPA 1632A)	0.02 µg/L to 10 µg/L
		Chromium (VI)	SM 3500-Cr (prep SM 3500-Cr) EPA 7196A (prep EPA 7196A)	1 µg/L to 200 µg/L
		Selenate, Selenite, Selenocyanate	SOP2834 (speciation by LC-ICP-MS) (prep SOP2834)	2 µg/L to 100 µg/L
Environmental ^F	Water	Arsenic, Cadmium, Chromium, Cobalt, Copper, Lead, Nickel, Selenium, Silver, Thallium, Zinc	EPA 1640 (prep EPA 1640)	0.01 µg/L to 100 µg/L



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Environmental ^F	Water	Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Hardness, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Tungsten, Vanadium, Zinc	EPA 1638, EPA 200.8 (prep EPA 1638) (ICP-MS) SM 2340B 20 th ed. SM 2340 B-97	0.02 µg/L to 10 000 µg/L	
		Methyl Mercury	EPA 1630 (prep EPA-1630)	0.05 ng/L to 40 ng/L	
		Mercury	EPA 1631E (prep EPA 1631E)	0.5 ng/L to 400 ng/L	
		Arsenite, Inorganic Arsenic	EPA 1632A (prep EPA 1632A)	0.02 µg/L to 10 µg/L	
		Chromium (VI)	SM 3500-Cr (prep SM 3500-Cr) EPA 7196A (prep EPA 7196A)	1 µg/L to 200 µg/L	
		Selenate , Selenite, Selenocyanate	SOP2834 (speciation by LC-ICP-MS) (prep SOP2834)	2 µg/L to 100 µg/L	
		Soil/Sediment	Chromium (VI)	SM 3500-Cr (prep EPA 3060 Mod) EPA 7196A (prep EPA 3060 Mod)	2 mg/kg to 100 mg/kg
			Selenate , Selenite, Selenocyanate	SOP2834 (speciation by LC-ICP-MS) (prep SOP2993)	8 mg/kg to 200 mg/kg
	Arsenite, Inorganic Arsenic		EPA 1632A (prep EPA 1632A)	0.01 mg/kg to 5 mg/kg	
	Methyl Hg		EPA 1630 Mod (prep SOP5134)	0.05 ng/g to 50 ng/g	
	Mercury		EPA 1631B (prep EPA 1631B)	1 ng/g to 1 000 ng/g	



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Environmental ^F	Soil/Sediment	Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Tungsten, Vanadium, Zinc	EPA 1638 Mod (prep EPA 3051)	0.01 mg/kg to 500 mg/kg
		Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Tungsten, Vanadium, Zinc	EPA 1638 Mod (prep SOP2821)	0.01 mg/kg to 500 mg/kg
	Tissues	Arsenite, Inorganic Arsenic	EPA 1632A (prep EPA 1632A)	0.01 mg/kg to 5 mg/kg
		Chromium (VI)	SM 3500-Cr (prep EPA 3060 mod) EPA 7196A (prep EPA 3060 Mod)	2 mg/kg to 100 mg/kg
		Selenate , Selenite, Selenocyanate	SOP2834 (speciation by LC-ICP-MS) (prep SOP2993)	8 mg/kg to 200 mg/kg
		Methyl Mercury	EPA 1630 (prep SOP2986)	2 ng/g to 500 ng/g
		Mercury	EPA 1631B (prep EPA 1631B)	0.8 ng/g to 800 ng/g



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Environmental ^F	Tissues	Metals: Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc	EPA 1638 Mod (prep SOP2837)	0.01 mg/kg to 500 mg/kg
	Petroleum Products	Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Molybdenum, Nickel, Phosphorus, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc	EPA 1638 Mod (prep SOP5145)	0.1 mg/kg to 500 mg/kg
		Mercury	EPA 1631E (prep SOP5145)	1 ng/g to 1 000 ng/g
	Air & Emissions	Particulate Bound Mercury	FAMS/SOP5143 (prep SOP2985)	1 ng/trap to 200 ng/trap
		HgII Mercury	FAMS/SOP5143 (prepSOP2800)	0.5 ng/L to 40 ng/L
		Elemental Mercury	FAMS/SOP5143 (prep SOP2985)	1 ng/trap to 200 ng/trap
		Total Gaseous Mercury	EPA 30B/PS 12B/SOP5143 (prep by EPA 30B/PS 12B SOP5143)	1 ng/trap to 200 ng/trap

- The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer ^F would mean that the laboratory performs this testing at its fixed location.