PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

A & B Environmental Services, Inc

10100 East Freeway, Suite 100, Houston, TX 77029

and hereby declares that the Organization is accredited in accordance with the recognized International Standard:

ISO/IEC 17025:2017 & EPA NLLAP-LQSR Revision 4.0

Whereby, technical competence has been confirmed for the associated scope supplement, in the fields of:

Biological and Environmental Testing

(As detailed in the supplement)

Accreditation claims for conformity assessment activities shall only be made from the addresses referenced within this certificate and shall apply solely to those activities identified in the related scope. This Accreditation is granted subject to the Accreditation Body rules governing the Accreditation referred to above, and the Organization hereby commits to observing and complying with those rules in their entirety.

For PJLA:

Tracy Szerszen
President

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

Initial Accreditation Date:	*Issue Date:*	*Expiration Date:*
February 10, 2012	April 19, 2026	April 30, 2028

Accreditation No.:	*Certificate No.:*
71390	L26-326

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.pjlabs.com

Certificate of Accreditation: Supplement

A & B Environmental Services, Inc

10100 East Freeway, Suite 100, Houston, TX 77029
Contact Name: John Watson Phone: 713-453-6060

Accreditation is granted to the facility to perform the following conformity assessment activities:

FIELD OF TEST	ITEMS, MATERIALS, OR PRODUCTS TESTED	COMPONENT, CHARACTERISTIC, PARAMETER TESTED	SPECIFICATION OR STANDARD METHOD	TECHNOLOGY OR TECHNIQUE USED	FLEX CODE	LOCATION OF ACTIVITY
Environmental	Paint Chips, Dust, Soil	Lead (pb)	EPA 3050B	Acid Digestion	F1, F2	F
Environmental	Paint Chips, Dust, Soil	Lead (pb)	EPA 6010D	ICP-OES	F1, F2	F
Environmental	Aqueous/ Solid	Chlorinated Herbicides	EPA 8151A	GC/ECD	F1, F2, F3	F
Environmental	Aqueous/ Solid	Chlorinated Pesticides	EPA 8081B	GC/ECD	F1, F2, F3	F
Environmental	Aqueous	Chlorinated Pesticides	EPA 608.3	GC/ECD	F1, F2, F3	F
Environmental	Aqueous	PCBs	EPA 608.3	GC/ECD	F1, F2, F3	F
Environmental	Aqueous/ Solid	PCBs	EPA 8082A	GC/ECD	F1, F2, F3	F
Environmental	Aqueous	Chlorinated Herbicides	EPA 615	GC/ECD	F1, F2, F3	F
Environmental	Aqueous	Volatile Organic Compounds	EPA 624.1	GC/MS	F1, F2, F3	F
Environmental	Aqueous	Semi volatile Organic Compounds	EPA 625.1	GC/MS	F1, F2, F3	F
Environmental	Aqueous	Enterococci	ASTM D6503-19	IDEXX DST	F1, F2	F
Environmental	Aqueous	O&G (SGT-HEM) Oil & Grease	EPA 1664B	Gravimetric	F1, F2	F
Environmental	Aqueous	Ammonia as N	EPA 350.3	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous	TKN	EPA 351.4	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous	Ortho Phosphate-P	EPA 365.2	Colorimetric	F1, F2	F
Environmental	Aqueous	Total Phosphorus-P	EPA 365.2	Colorimetric	F1, F2	F
Environmental	Aqueous	Sulfide	EPA 376.1	Titrimetric	F1, F2	F
Environmental	Aqueous	Sulfide	EPA 376.2	Colorimetric	F1, F2	F
Environmental	Aqueous	COD	EPA 410.4	Colorimetric	F1, F2	F
Environmental	Aqueous	TOC	EPA 415.1	Catalytic combustion/IR	F1, F2	F

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Environmental	Aqueous	Organophosphorus Pesticides	EPA 614	GC/NPD	F1, F2, F3	F
Environmental	Aqueous	TOC	EPA 9060 A	Catalytic combustion/IR	F1, F2	F
Environmental	Aqueous	Total Hardness	SM 2340 B	Calculation, ICP-OES	F1, F2	F
Environmental	Aqueous	Total Hardness	SM 2340 C	Titrimetric	F1, F2	F
Environmental	Aqueous	Total Solids	SM 2540 B	Gravimetric	F1, F2	F
Environmental	Aqueous	MLSS	SM 2540 D	Gravimetric	F1, F2	F
Environmental	Aqueous	TSS	SM 2540 D	Gravimetric	F1, F2	F
Environmental	Aqueous	Volatile Solids	SM 2540 E	Gravimetric	F1, F2	F
Environmental	Aqueous	VSS	SM 2540 E	Gravimetric	F1, F2	F
Environmental	Aqueous	pH	SM 4500 H B	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous	Ammonia as N	SM 4500 NH3 D	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous	TKN	SM 4500 NH3 D	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous	Ortho Phosphate-P	SM 4500 P E	Colorimetric	F1, F2	F
Environmental	Aqueous	Phosphorus	SM 4500 P E	Colorimetric	F1, F2	F
Environmental	Aqueous	Sulfide	SM 4500 S F	Titrimetric	F1, F2	F
Environmental	Aqueous	Silica	SM 4500 SiO2 D	Colorimetric	F1, F2	F
Environmental	Aqueous	BOD	SM 5210 B	Membrane electrode	F1, F2	F
Environmental	Aqueous	CBOD	SM 5210 B	Membrane electrode	F1, F2	F
Environmental	Aqueous	COD	SM 5220 D	Colorimetric	F1, F2	F
Environmental	Aqueous	DOC	SM 5310 B	Membrane electrode	F1, F2	F
Environmental	Aqueous	TOC	SM 5310 B	Catalytic combustion/IR	F1, F2	F
Environmental	Aqueous	Nitrite-N	SM 4500 NO2 B	Colorimetric	F1, F2	F
Environmental	Aqueous	Dissolved Oxygen	SM 4500 O G	Membrane electrode	F1, F2	F

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Environmental	Aqueous	Sulfide	SM 4500 S D	Colorimetric	F1, F2	F
Biological	Aqueous	Heterotrophic Plate Count	SM 9215 B	Pour plate	F1, F2	F
Biological	Aqueous	Coliform, Total	SM 9223 B	Enzyme substrate	F1, F2	F
Biological	Aqueous	E. coli	SM 9223 B	Enzyme substrate	F1, F2	F
Biological	Aqueous	Legionella	SOP 152	Spread plate, direct plate	F1, F4	F
Environmental	Drinking Water	Conductance	EPA 120.1	Potentiometric/ISE	F2	F
Environmental	Drinking Water	Total Hardness	EPA 130.2	Titrimetric	F2	F
Environmental	Drinking Water	pH	EPA 150.1	Potentiometric/ISE	F2	F
Environmental	Drinking Water	TDS	EPA 160.1	Gravimetric	F2	F
Environmental	Drinking Water	TSS	EPA 160.2	Gravimetric	F2	F
Environmental	Drinking Water	**Metals:** Aluminum Antimony Arsenic Barium Beryllium Boron Cadmium Calcium Chromium Cobalt Copper Iron Lead Lithium Magnesium Manganese Molybdenum	EPA 200.7	ICP-OES	F2	F

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Environmental	Drinking Water	**Metals:** Nickel Potassium Selenium Silica Silicon Silver Sodium Strontium Thallium Titanium Vanadium Zinc	EPA 200.7	ICP-OES	F2	F
Environmental	Drinking Water	**Metals:** Aluminum Antimony Arsenic Barium Beryllium Cadmium Calcium Chromium Cobalt Copper Iron Lead Magnesium Manganese Molybdenum Nickel Potassium	EPA 200.8	ICP-MS	F2	F

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Environmental	Drinking Water	**Metals:** Selenium Silver Sodium Thallium Thorium Uranium Vanadium Zinc	EPA 200.8	ICP-MS	F2	F
Environmental	Drinking Water	Mercury	EPA 245.1	CVAA	F2	F
Environmental	Drinking Water	Anions: Bromide Chloride Fluoride Nitrate Nitrate/Nitrite as N Nitrite Ortho Phosphate-P Sulfate	EPA 300.0	IC	F2	F
Environmental	Drinking Water	Cyanide, Amenable	EPA 335.1	Colorimetric	F2	F
Environmental	Drinking Water	Cyanide, Total	EPA 335.2	Colorimetric	F2	F
Environmental	Drinking Water	**VOCs:** 1,1,1-Trichloroethane 1,1,2-Trichloroethane 1,1-Dichloroethylene 1,2,4-Trichlorobenzene 1,2-Dichlorobenzene 1,2-Dichloroethane 1,2-Dichloropropane 1,4-Dichlorobenzene	EPA 524.2	GC/MS	F2	F

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Environmental	Drinking Water	**VOCs:** Benzene Bromodichloromethane Bromoform Carbon tetrachloride Chlorobenzene Chloroform cis-1,2-Dichloroethylene Dibromochloromethane Dichloromethane Ethylbenzene m- & p-Xylenes o-Xylene Styrene Tetrachloroethylene THMs Toluene trans-1,2-Dichloroethylene Trichloroethylene Vinyl Chloride Xylenes	EPA 524.2	GC/MS	F2	F
Environmental	Drinking Water	**Haloacetic Acids:** Bromochloroacetic Acid Dibromoacetic Acid Dichloroacetic Acid Monobromoacetic Acid Monochloroacetic Acid Total Haloacetic Acids Trichloroacetic Acid	EPA 552.2	GC/ECD	F2	F
Environmental	Drinking Water	Total Hardness	SM 2340 C	Titrimetric	F2	F
Environmental	Drinking Water	Conductance	SM 2510 B	Potentiometric/ISE	F2	F

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Environmental	Drinking Water	TDS	SM 2540 C	Gravimetric	F2	F
Environmental	Drinking Water	Cyanide, Total	SM 4500 CN C/E	Colorimetric	F2	F
Environmental	Drinking Water	Cyanide, Amenable	SM 4500 CN C/G	Colorimetric	F2	F
Environmental	Drinking Water	pH	SM 4500 H B	Potentiometric/ISE	F2	F
Environmental	Drinking Water	Nitrite-N	SM 4500 NO2 B	Potentiometric/ISE	F2	F
Environmental	Solid	SPLP	EPA 1312	Preparatory	F1, F2	F
Environmental	Solid	% Moisture	SM 2540 G	Gravimetric	F1, F2	F
Environmental	Solid	Ash	SM 2540 G	Gravimetric	F1, F2	F
Environmental	Solid	LOI	SM 2540 G	Gravimetric	F1, F2	F
Environmental	Solid	Total Solids	SM 2540 G	Gravimetric	F1, F2	F
Environmental	Solid	Volatile Solids	SM 2540 G	Gravimetric	F1, F2	F
Environmental	Solid	Ammonia as N	EPA 350.3	Potentiometric/ISE	F1, F2	F
Environmental	Solid	TKN	EPA 351.4	Potentiometric/ISE	F1, F2	F
Environmental	Solid	Chromium, Hexavalent	SM 3500 Cr B MOD SOP030	Colorimetric	F1, F4	F
Environmental	Solid	Ammonia-N	SM 4500 NH3 D	Potentiometric/ISE	F1, F2	F
Environmental	Aqueous/Solid	**Carbonyls:** Acetaldehyde Benzaldehyde Formaldehyde	EPA 8315A	HPLC/DAD	F1, F2	F

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Environmental	Aqueous/Solid	**Alcohols/Glycols:** 2-Propanol Acetone DRO Ethanol GRO Isobutyl Alcohol Methanol n-Butanol n-Propyl Alcohol sec-Butyl Alcohol Tert-Butyl Alcohol	EPA 8015D	GC/FID	F1, F2	F
Environmental	Aqueous/Solid	Organophosphorus Compounds	EPA 8141B	GC/NPD	F1, F2, F3	F
Environmental	Aqueous/Solid	Acrolein Acrylamide Acrylonitrile	EPA 8316	HPLC/DAD	F1, F2	F
Environmental	Aqueous/Solid	Sulfide	EPA 9034	Titrimetric	F1, F2	F
Environmental	Aqueous/Solid	**Total Petroleum Hydrocarbons (TPH):** >C12-C28 >C28-C35 C6-C12 Total C6-C35	TX 1005	GC/FID	F1, F2	F
Environmental	Aqueous	Microwave Extraction	EPA 3546	Preparatory	F1, F2	F
Environmental	Solid	Purge-and-Trap for Aqueous Samples	EPA 5030C	Preparatory	F1, F2	F
Biological	Aqueous	Heterotrophic Plate Count	SM 9215 B	Pour Plate	F1, F2	F
Biological	Aqueous	Coliform, Total	SM 9223 B	Enzyme Substrate	F1, F2	F
Biological	Drinking Water	Heterotrophic Plate Count	SM 9215 B	Pour Plate	F2	F

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Biological	Drinking Water	Coliform, Fecal	SM 9221 E	Multiple Tube	F2	F
Biological	Drinking Water	Coliform, Total	SM 9222 B	Membrane Filtration	F2	F
Biological	Drinking Water	Coliform, Fecal	SM 9222 D	Membrane Filtration	F2	F
Biological	Drinking Water	E. coli	SM 9222 G	Membrane Filtration	F2	F
Biological	Drinking Water	Coliform, Total	SM 9223 B	Enzyme Substrate	F2	F
Biological	Drinking Water	Coliform, Total	SM 9223 B	Enzyme Substrate	F2	F
Biological	Drinking Water	E. coli	SM 9223 B	Enzyme Substrate	F2	F
Biological	Drinking Water	Legionella	SOP 152	Culture by plate	F4	F
Biological	Solid	Coliform, Total	SM 9222 B	Membrane Filtration	F1, F2	F
Biological	Solid	Coliform, Fecal	SM 9222 D	Membrane Filtration	F1, F2	F
Biological	Solid	E. coli	SM 9222 G	Membrane Filtration	F1, F2	F
Biological	Liquid	Legionella - PCR	ISO/TS 12869:2019	PCR	F1, F2	F
Biological	Liquid	Fecal Coliform – M 7H	SM 9211 B	Membrane Filtration	F1, F2	F
Biological	Solid	Salmonella	EPA 1682	Culture by Plate	F1, F2	F
Biological	Liquid	E. coli MPN	SM 9221 F	Multiple Tube	F1, F2	F
Biological	Liquid	Legionella	SOP 195	Culture by Plate	F1, F4	F

1. Location of activity:

Location	Location
F	Conformity assessment activity is performed at the CABs fixed facility

2. Flex Code:
   F0- Fixed scope item. No deviations allowed to the line item as identified, except for updating to the most recent version of an accredited standard method after verification.
   F1- Laboratory has the capability to test a new item, material, matrix, or product similar in composition to item, material, matrix, or product identified on the scope
   F2- Laboratory has the capability to introduce the newest revision of an accredited authoritative standard method (with no modifications) identified on the scope
   F3- Laboratory has the capability to introduce a parameter/component/analyte to an accredited test method identified on the scope
   F4- Laboratory has the capability to introduce a new revision of an accredited non-standard method using the same technology or technique identified on the scope
   F5- Laboratory has the capability to introduce a validated method that is equivalent to an accredited method (using same technology or technique) identified on the scope