Catalogue

October 29, 2026
Version 1.27

PTC | Proficiency Testing Canada

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1.0 Introduction

The Proficiency Testing Canada PT Program conforms to ISO/IEC 17043 *Conformity assessment- General requirements for the competence of proficiency testing providers* and offers PT in support of inorganic, organic and microbiology test methods covering matrices such as water, soil/sediment, oil and air filters. Not all of the Test Groups in this catalogue are covered by the scope of accreditation. For a detailed list of what is covered by the A2LA accreditation please refer to certificate 2298.01 the A2LA website (**https://www.a2la.org**).

With the exception of C05A (microbiology), C05B (microbiology), C71 (Pesticides in Cannabis) and C73 (Residual Solvents in Hemp Oil), samples are provided as whole samples and are ready to analyze. However, some samples may have to be diluted to bring the concentrations within the laboratory's calibration range, as is common practice for customer samples.

In general, each test group is shipped twice per year, one half being shipped in January and June and the other half shipping in March and October. With the exception of C38, C39, C70, C71, C72, C73 and C78, each test group consists of four samples of different concentration.

Proficiency Testing Canada offers a 20% discount to Institutional voting members in good standing of the Canadian Association for Laboratory Accreditation (CALA). If you would like to become a CALA member, please visit their website (**www.cala.ca**). Laboratories that have not paid their membership fee before the PT round invoice is issued will be charged the non-discounted fee.

2.0 References

The following PTC documents located on the PTC website (**https://ptcanada.org/pt-resources/operations-docs/**) provide further information about Proficiency Testing:

- PAR03 - PT *Scheme*;
- PROC09 – *PT Evaluation Procedures*;
- PROC11 – *PT Regression Equations*; and,
- PAR05 – *List of PT Subcontractors*.

3.0 2027 Shipping Schedule

The table below provides details on important dates for the PT Canada PT Program (2027). Items New to the 2027 Catalogue are highlighted in **green**.

New for 2027 – **C05A/B is now available in the June PT Study**.

Test Groups	Shipping Date	Reporting Deadline
C01A, C01B, C02A, C02B, C02C, C03, C04A, C04B, C04C, C04D, C05A, C05B, C10A, C11, C12, C13, C14, C15, C19, C32, C33, C37, C42, C48, C49, C50, C53, C54, C55, C70, C71, C72, C73, C78	March 15 April 5 (C10A)	April 16
	October 18 (C05A/C05B) November 1 (C10A) October 25 (all others)	November 26
Test Groups	**Shipping Date**	**Reporting Deadline**
C06A, C06B, C07, C08, C09, C16, C17, C18, C22, C24, C25, C27, C29, C31A, C31B, C34, C35, C36, C38, C39, C40A, C40B, C41, C43, C44, C45, C46, C47, C51, C74, C75, C76, C77	January 18	February 19
	June 21	July 23
C05A, C05B	July 12	July 23

Test Groups	Shipping Date	Reporting Deadline
C20 – Asbestos & C20B – Bulk Asbestos	January 18	February 12
	March 15	April 9
	June 21	July 16
	October 4	October 29

If there are any discrepancies between this schedule and the schedule posted on the PT Canada website (www.ptcanada.org), the PTC website will be deemed to be correct. If there are any changes to the posted schedule, all participants registered for the affected PT round will be notified.

4.0 Registration

Laboratories wishing to participate in PT Canada Proficiency Testing must apply through the PTC portal **https://portal.ptcanada.org/login**.

The **Registration deadline** is 2 weeks before samples are shipped. Samples cannot be cancelled after the Registration Deadline. Please contact PTC directly for registration changes.

5.0 Tests Offered in the PT Canada PT Program

This section provides details on the test group names, analytes included in the test group, approximate concentration range, months that the studies occur, the approximate volume of material provided and the preservative used. The Test Groups/Analytes highlighted in **green** are changes to the 2027 PTC Catalogue – the change could be the addition of a Test Group, Analyte or a change to the concentration range.

Note to international laboratories: Some samples may be subject to national import restrictions. Please consult with your national import authorities.

5.1 WATER INORGANICS

C01A Major Ions in Water

Analyte	Concentration Range	Information
Alkalinity to pH 4.5	20 – 250 mg/L	Mar/Oct 500 mL Preservative: None
Chloride	5 – 400 mg/L	
Conductivity at 25°C	20 – 2000 µS/cm	
Calcium	2 – 200 mg/L	
Magnesium	1 – 40 mg/L	
Fluoride	0.2 – 4.0 mg/L	
Hardness as $CaCO_3$	20 – 800 mg/L	
Inorganic Carbon	10 – 100 mg/L	
Nitrate	0.20 – 20.0 mg/L	
Nitrate plus Nitrite	0.20 – 20.0 mg/L	
Potassium	1 – 40 mg/L	
Reactive Silica	0.02 – 10 mg/L	
Sodium	10 – 150 mg/L	
Sulphate	5 – 200 mg/L	

This PT is obtained from naturally occurring surface waters which are supplemented with analyte additions to achieve target concentration ranges.

C01B Simple Nutrients in Water

Analyte	Concentration Range	Information
Ammonia	0.5 – 20.0 mg/L	Mar/Oct 250 mL Preservative: None
Organic Carbon	2.0 – 20.0 mg/L	
Phosphate	0.1 – 3.0 mg/L	
Bromide	1.0 – 10.0 mg/L	
Nitrite	0.1 – 1.0 mg/L	

The concentration ranges for this PT cover the range from clean waters to wastewaters.

C02A Metals (Full Range) in Water

Analyte	Concentration Range	Information
Aluminum	0.001 – 1.60 mg/L	Mar/Oct 250 mL Preservative: 0.2% HNO_3
Antimony	0.001 – 0.10 mg/L	
Arsenic	0.001 – 0.10 mg/L	
Barium	0.001 – 1.60 mg/L	
Beryllium	0.001 – 1.0 mg/L	
Bismuth	0.005 – 0.50 mg/L	
Boron	0.001 – 1.60 mg/L	
Cadmium	0.001 – 0.10 mg/L	
Chromium	0.001 – 1.60 mg/L	
Cobalt	0.001 – 1.60 mg/L	
Copper	0.001 – 1.60 mg/L	
Iron	0.001 – 1.60 mg/L	
Lithium	0.005 – 0.50 mg/L	
Lead	0.001 – 1.60 mg/L	
Manganese	0.001 – 1.60 mg/L	
Molybdenum	0.001 – 1.60 mg/L	
Nickel	0.001 – 1.60 mg/L	
Selenium	0.001 – 0.10 mg/L	
Silver	0.001 – 0.10 mg/L	
Strontium	0.001 – 1.60 mg/L	
Thallium	0.001 – 1.60 mg/L	
Tin	0.001 – 0.10 mg/L	
Titanium	0.001 – 1.60 mg/L	
Uranium	0. 001 – 0.10 mg/L	
Vanadium	0.001 – 1.60 mg/L	
Zinc	0.001 – 1.60 mg/L	

This PT test group is intended for analysis by ICP-MS or other technologies that can achieve low mg/L detection levels. Although sample digestion is not required, hydrides by hydride generation will require the digestion specified by the method.

C02B Metals (High Range) in Water

Analyte	Concentration Range	Information
Aluminum	0.25 – 1.60 mg/L	Mar/Oct 250 mL Preservative: 0.2% HNO_3
Barium	0.25 – 1.60 mg/L	
Bismuth	0.05 – 0.50 mg/L	
Boron	0.25 – 1.60 mg/L	
Chromium	0.25 – 1.60 mg/L	
Cobalt	0.25 – 1.60 mg/L	
Copper	0.25 – 1.60 mg/L	
Iron	0.25 – 1.60 mg/L	
Lead	0.25 – 1.60 mg/L	
Lithium	0.05 – 0.50 mg/L	
Manganese	0.25 – 1.60 mg/L	
Molybdenum	0.25 – 1.60 mg/L	
Nickel	0.25 – 1.60 mg/L	
Strontium	0.25 – 1.60 mg/L	
Thallium	0.25 – 1.60 mg/L	
Titanium	0.25 – 1.60 mg/L	
Vanadium	0.25 – 1.60 mg/L	
Zinc	0.25 – 1.60 mg/L	

This PT is intended for laboratories that use ICP-OES or other technologies that have higher detection levels than ICP-MS. Sample digestion is not required.

C02C Metals (Total) in Water

Analyte	Concentration Range	Information
Aluminum	0.25 – 1.60 mg/L	Mar/Oct 250 mL Preservative: 0.2% HNO_3
Antimony	0.001 – 0.10 mg/L	
Arsenic	0.001 – 0.10 mg/L	
Barium	0.25 – 1.60 mg/L	
Beryllium	0.001 – 1.00 mg/L	
Bismuth	0.05 – 0.50 mg/L	
Boron	0.25 – 1.60 mg/L	
Cadmium	0.001 – 0.10 mg/L	
Chromium	0.25 – 1.60 mg/L	
Cobalt	0.25 – 1.60 mg/L	
Copper	0.25 – 1.60 mg/L	
Iron	0.25 – 1.60 mg/L	
Lead	0.25 – 1.60 mg/L	
Lithium	0.05 – 0.50 mg/L	
Manganese	0.25 – 1.60 mg/L	
Molybdenum	0.25 – 1.60 mg/L	
Nickel	0.25 – 1.60 mg/L	
Selenium	0.001 – 0.10 mg/L	
Silver	0.001 – 0.10 mg/L	
Strontium	0.25 – 1.60 mg/L	
Thallium	0.25 – 1.60 mg/L	
Tin	0.001 – 0.10 mg/L	
Titanium	0.25 – 1.60 mg/L	
Uranium	0. 001 – 0.10 mg/L	
Vanadium	0.25 – 1.60 mg/L	
Zinc	0.25 – 1.60 mg/L	

This PT is intended for metals analyses that require a preliminary acid digestion.

C03 Complex Nutrients in Water

Analyte	Concentration Range	Information
Total Kjeldahl Nitrogen	2.0 – 20 mg/L	Mar/Oct 250 mL Preservative: pH < 2 H_2SO_4
Total Phosphorus	0.10 – 4.0 mg/L	

The concentration range covers both clean waters and wastewaters. An appropriate digestion is required prior to analysis. This PT is not intended for Total Nitrogen analysis involving a UV digestion unless nitrates are subtracted prior to reporting.

C04A Solids in Water

Analyte	Concentration Range	Information
Total Suspended Solids	10 – 200 mg/L	Mar/Oct 500 mL Preservative: None
Total Dissolved Solids	100 - 1000 mg/L	
Volatile Suspended Solids	5 – 150 mg/L	

Solids concentrations are typical of those observed in wastewater treatment systems. Filters used should be Whatman™ 934-AH™ or equivalent

C04B Biochemical Oxygen Demand in Water

Analyte	Concentration Range	Information
BOD	25 – 200 mg/L	Mar/Oct 1000 mL Preservative: Freezing
CBOD	25 – 200 mg/L	

BOD and CBOD concentrations are typical of those observed in wastewater treatment systems.

C04C Turbidity in Water

Analyte	Concentration Range	Information
Turbidity	0.5 – 50 NTU	Mar/Oct 250 mL Preservative: None

The turbidity levels found in these samples are suitable for drinking water and for surface water.

C04D Chemical Oxygen Demand in Water

Analyte	Concentration Range	Information
COD	30 – 500 mg/L	Mar/Oct 250 mL Preservative: pH < 2 H_2SO_4

The COD concentrations in these samples are typical of those found in wastewater treatment systems and is suitable for the HACH™ COD vials (or equivalent).

C14 Cyanide in Water

Analyte	Concentration Range	Information
Cyanide – Strong Acid Dissociable	0.2 – 5.0 mg/L	Mar/Oct 500 mL Preservative: pH > 12 NaOH

This PT is suitable for methods that require a strong acid treatment to dissociate complex cyanides.

C15 pH in Water

Analyte	Concentration Range	Information
pH	3 – 10 pH units	Mar/Oct 125 mL Preservative: None

C19 Mercury in Water

Analyte	Concentration Range	Information
Mercury	0.1 – 5.0 µg/L	Mar/Oct 125 mL Preservative: 0.5% Bromine Monochloride

C32 Chlorine in Water

Analyte	Concentration Range	Information
Free Chlorine	0.5 – 3.0 mg/L	Mar/Oct 250 mL Preservative: None
Total Chlorine	0.5 – 3.0 mg/L	

C33 4AAP Phenolics in Water

Analyte	Concentration Range	Information
Total Phenolics	0.005 – 0.5 mg/L	Mar/Oct 250 mL Preservative: pH < 2 H_2SO_4

This PT is restricted to laboratories that use the 4AAP colorimetric method.

C34 Oil and Grease in Water

Analyte	Concentration Range	Information
Total Oil and Grease	10 – 500 mg/L	Jan/Jun 1000 mL Preservative: pH < 2 H_2SO_4
Mineral (non-polar) Oil and Grease	10 – 500 mg/L	

This PT is restricted to laboratories that use the hexane extractable/gravimetric procedure for oil and grease.

C37 Colour in Water

Analyte	Concentration Range	Information
True Colour	2 – 50 TCU	Mar/Oct 125 mL Preservative: pH < 2 HCl

Although the reference method for colour instructs laboratories to pH adjust samples for Colour analysis, these samples are not to be pH adjusted prior to analysis.

C41 Hexavalent Chromium in Water

Analyte	Concentration Range	Information
Hexavalent Chromium	50 - 500 µg/L	Jan/Jun 125 mL Preservative: pH 9.3 – 9.7 Ammonium Chloride

These samples are not to be pH adjusted before analysis.

C42 Sulphide in Water

Analyte	Concentration Range	Information
Sulphide	1 – 10 mg/L	Mar/Oct 125 mL Preservative: pH 10 with NaOH and $ZnAc_2$

C46 Acidity in Water

Analyte	Concentration Range	Information
Acidity	50 – 2000 mg/L	Jan/Jun 250 mL Preservative: None

5.2 WATER ORGANICS

C06A Organochlorine Pesticides in Water

Analyte	Concentration Range	Information
alpha-BHC	0.05 – 3.0 µg/L	Jan/Jun 1000 mL Preservative: None
Endosulfan I	0.05 – 3.0 µg/L	
Endosulfan II	0.05 – 3.0 µg/L	
Endrin	0.05 – 3.0 µg/L	
Heptachlor Epoxide	0.05 – 3.0 µg/L	
Lindane (gamma-BHC)	0.05 – 3.0 µg/L	
Mirex	0.05 – 3.0 µg/L	
o,p' – DDT	0.05 – 3.0 µg/L	
p,p' – DDT	0.05 – 3.0 µg/L	
p,p' Methoxychlor	0.05 – 3.0 µg/L	
Aldrin	0.05 – 5.0 µg/L	
Dieldrin	0.05 – 5.0 µg/L	
Heptachlor	0.05 – 5.0 µg/L	
a – Chlordane	0.05 – 5.0 µg/L	
Trans – Chlordane	0.05 – 5.0 µg/L	

C06B PCBs in Water

Analyte	Concentration Range	Information
Total PCB	1.0 – 20.0 µg/L	Jan/Jun 1000 mL Preservative: None
Aroclor 1242	1.0 – 20.0 µg/L	
Aroclor 1248	1.0 – 20.0 µg/L	
Aroclor 1254	1.0 – 20.0 µg/L	
Aroclor 1260	1.0 – 20.0 µg/L	

Total PCBs in each sample will contain one of the aroclors listed above.

C07 Polycyclic Aromatic Hydrocarbons (PAHs) in Water

Analyte	Concentration Range	Information
Acenaphthene	0.4 - 12 µg/L	Jan/Jun 1000 mL Preservative: Sodium Bisulphate and Ascorbic Acid
Acenaphthylene	0.4 - 12 µg/L	
Anthracene	0.4 - 12 µg/L	
Benzo(a)anthracene	0.4 - 12 µg/L	
Benzo(a)pyrene	0.4 - 12 µg/L	
Benzo(b)fluoranthene	0.4 - 12 µg/L	
Benzo(b+j)fluoranthene	0.4 - 12 µg/L	
Benzo(g,h,i)perylene	0.4 - 12 µg/L	
Benzo(k)fluoranthene	0.4 - 12 µg/L	

C07 Polycyclic Aromatic Hydrocarbons (PAHs) in Water

Analyte	Concentration Range	Information
Chrysene	0.4 - 12 µg/L	
Dibenzo(a,h)anthracene	0.4 - 12 µg/L	
Fluoranthene	0.4 - 12 µg/L	
Fluorene	0.4 - 12 µg/L	
Indeno(1,2,3-cd)pyrene	0.4 - 12 µg/L	
Naphthalene	0.4 - 12 µg/L	
Phenanthrene	0.4 - 12 µg/L	
Pyrene	0.4 - 12 µg/L	

C16 Volatile Organic Compounds (VOCs) in Water

Analyte	Concentration Range	Information
1,1,1-Trichloroethane	6.0 – 200 µg/L	Jan/Jun 2 x 40 mL vials Preservative: Sodium Bisulphate
1,1,2,2-Tetrachloroethane	6.0 – 200 µg/L	
1,1,2-Trichloroethane	6.0 – 200 µg/L	
1,1-Dichloroethane	6.0 – 200 µg/L	
1,1-Dichloroethylene	6.0 – 200 µg/L	
1,2-Dichlorobenzene	6.0 – 200 µg/L	
1,2-Didichloroethane	6.0 – 200 µg/L	
1,2-Dichloropropane	6.0 – 200 µg/L	
1,3-Dichlorobenzene	6.0 – 200 µg/L	
1,4-Dichlorobenzene	6.0 – 200 µg/L	
Acetone (2-Propanone)	6.0 – 200 µg/L	
Benzene	2.0 – 200 µg/L	
Bromodichloromethane	20 – 500 µg/L	
Bromoform	20 – 500 µg/L	
Carbon Tetrachloride	6.0 – 200 µg/L	
Chlorobenzene	6.0 – 200 µg/L	
Chlorodibromomethane	20 – 500 µg/L	
Chloroform	20 – 500 µg/L	
cis-1,2-Dichloroethylene	6.0 – 200 µg/L	
cis-1,3-Dichloropropene	6.0 – 200 µg/L	
Dichloromethane	6.0 – 200 µg/L	
Ethylbenzene	2.0 – 200 µg/L	
Ethylene Dibromide	6.0 – 200 µg/L	
m/p-xylene	6.0 – 200 µg/L	
Methyl Ethyl Ketone	6.0 – 200 µg/L	
Methyl t-butyl ether (MTBE)	6.0 – 200 µg/L	
Methyl isobutyl Ketone (MIBK)	6.0 – 200 µg/L	
o-xylene	6.0 – 200 µg/L	
Styrene	6.0 – 200 µg/L	
Tetrachloroethylene	6.0 – 200 µg/L	

C16 Volatile Organic Compounds (VOCs) in Water

Analyte	Concentration Range	Information
Toluene	6.0 – 200 µg/L	
trans-1,2-Dichloroethylene	6.0 – 200 µg/L	
trans-1,3-Dichloropropene	6.0 – 200 µg/L	
Trichloroethylene	6.0 – 200 µg/L	
Trichlorofluoromethane	6.0 – 200 µg/L	
Vinyl Chloride	6.0 – 200 µg/L	

C22 Organophosphorus Pesticides in Water

Analyte	Concentration Range	Information
Atrazine	2 – 5 µg/L	Jan/Jun 1000 mL Preservative: None
Azinphos-methyl	10 – 40 µg/L	
Bendiocarb	1 – 40 µg/L	
Carbaryl	0.2 – 90 µg/L	
Carbofuran	0.2 – 90 µg/L	
Chlorpyriphos (ethyl)	2 – 10 µg/L	
Cyanazine	2 – 10 µg/L	
Diazinon	0.5 – 20 µg/L	
Dimethoate	2 – 20 µg/L	
Diuron	20 – 50 µg/L	
Malathion	2 – 10 µg/L	
Metolachlor	2 – 10 µg/L	
Metribuzin	2 – 10 µg/L	
Parathion (ethyl)	0.5 – 20 µg/L	
Phorate	0.5 – 5 µg/L	
Simazine	1 – 10 µg/L	
Terbufos	0.5 – 5 µg/L	
Trifluralin	1 – 10 µg/L	

C24 Aryloxy Acid Pesticides in Water

Analyte	Concentration Range	Information
2,4-Dichlorophenoxyacetic Acid	0.1 – 10 µg/L	Jan/Jun 1000 mL Preservative: pH < 2 H_2SO_4
2,4,5-Trichlorophenoxyacetic Acid	0.1 – 10 µg/L	
Bromoxynil	1 – 5 µg/L	
Dicamba	1 – 10 µg/L	
Diclofop-methyl (as free acid)	0.5 – 5 µg/L	
Dinoseb	1 – 10 µg/L	
Picloram	0.1 – 10 µg/L	

C25 Phenolic Compounds in Water

Analyte	Concentration Range	Information
2,4,6-Trichlorophenol	2 – 20 µg/L	Jan/Jun 1000 mL Preservative: pH < 2 H_2SO_4
2,3,4,6-Tetrachlorophenol	2 – 20 µg/L	
2,4-Dichlorophenol	2 – 20 µg/L	
Pentachlorophenol	2 – 20 µg/L	

C27 Glyphosate in Water

Analyte	Concentration Range	Information
Glyphosate	25 – 80 µg/L	Jan/Jun 250 mL Preservative: 0.01% Thiosulphate

C29 Aldicarb in Water

Analyte	Concentration Range	Information
Aldicarb	1 – 9 µg/L	Jan/Jun 250 mL Preservative: 0.01% Thiosulphate

C40A Petroleum Hydrocarbons in Water

Analyte	Concentration Range	Information
Benzene	1 - 100 µg/L	Jan/Jun 2 x 40 mL vials Preservative: Sodium Bisulphate
Ethylbenzene	1 - 200 µg/L	
F1: C6-C10	20 - 1000 µg/L	
m/p-Xylene	1 - 200 µg/L	
o-Xylene	1 - 200 µg/L	
Toluene	1 - 200 µg/L	
VH (C6-C10) *	20 - 1000 µg/L	

C40B Petroleum Hydrocarbons in Water

Analyte	Concentration Range	Information
F2: C10-C16	200 - 50,000 µg/L	Jan/Jun 1000 mL Preservative: None
F3: C16-C34	200 - 50,000 µg/L	
F4: C34-C50	200 - 50,000 µg/L	

C47 Haloacetic Acids in Water

Analyte	Concentration Range	Information
Bromochloroacetic acid	5 - 50 µg /L	Jan/Jun 2 x 40 mL Preservative: Ammonium Chloride
Dibromoacetic acid	5 - 50 µg /L	
Dichloroacetic acid	5 - 50 µg /L	
Monobromoacetic acid	5 - 50 µg /L	
Monochloroacetic acid	5 - 50 µg /L	
Trichloroacetic acid	5 - 50 µg /L	

C48 Diquat & Paraquat in Water

Analyte	Concentration Range	Information
Diquat	1 - 50 µg/L	Mar/Oct 250 mL Preservative: 0.01% Thiosulphate
Paraquat	1 – 10 µg/L	

C49 PCB Congeners in Water

Analyte	Concentration Range	Information
PCB Congeners (209 analytes- See Appendix 1)	0.2-5 ug/L	Mar/Oct 250 mL Preservative: None

C50 PFAS in Water

Analyte	Concentration Range	Information
PFAS (EPA 1633 – 40 Analytes – See Appendix 2)	10-200 ng/L	Mar/Oct 2mL ampoule per sample Preservative: None

5.3 WATER MICROBIOLOGY**

C05A Water Microbiology		
Analyte	**Concentration Range**	**Information**
Escherichia coli (E. coli)	20-100 CFU/100mL (200-1000 CFU/L)	Mar/Oct 5 - 20 mL Preservative: Stabilized
Faecal (Thermotolerant) Coliforms	20-100 CFU/100mL (200-1000 CFU/L)	
Heterotrophic Plate Count	20-100 CFU/100mL (200-1000 CFU/L)	
Total Coliforms	20-100 CFU/100mL (200-1000 CFU/L)	
This PT is not intended for Multi-Tube fermentation methods		

C05B Water Microbiology (Presence/Absence)		
Analyte	**Concentration Range**	**Information**
Escherichia coli (E. coli)	20-100 CFU/100mL (200-1000 CFU/L)	Mar/Oct 5 - 20 mL Preservative: Stabilized
Total Coliforms	20-100 CFU/100mL (200-1000 CFU/L)	

C10A Enterococci & Faecal Streptococci in Water		
Analyte	**Concentration Range**	**Information**
Enterococci	20-100 CFU/100mL (200-1000 CFU/L)	Mar/Oct 5 - 20 mL Preservative: Stabilized
Faecal Streptococci	20-100 CFU/100mL (200-1000 CFU/L)	

5.4 SOIL

C17 Metals in Soil		
Analyte	**Concentration Range**	**Information**
Aluminum	1000 – 100,000 µg/g	Jan/Jun 5 - 7 g Preservative: None
Antimony	0.4 – 4.0 µg/g	
Arsenic	5.0 – 35 µg/g	
Barium	50 – 500 µg/g	
Beryllium	1.0 – 3.0 µg/g	
Boron	20 – 200 µg/g	
Cadmium	0.2 – 6.0 µg/g	
Calcium	0 – 3,000 µg/g	
Chromium	50 – 150 µg/g	
Cobalt	10 – 20 µg/g	
Copper	30 – 600 µg/g	
Iron	1000 – 50,000 µg/g	
Manganese	100 – 2000 µg/g	
Mercury	50 – 2000 ng/g	
Nickel	25 – 1000 µg/g	
Lead	5 – 400 µg/g	
Potassium	0 – 10,000 µg/g	
Sodium	0 – 500 µg/g	
Strontium	100 – 500 µg/g	
Sulphur	0 – 10,000 µg/g	
Tin	10 – 100 µg/g	
Titanium	500 – 5000 µg/g	
Uranium	1 – 5 µg/g	
Vanadium	25 – 200 µg/g	
Zinc	40 – 1600 µg/g	
Thallium	0.2-7 ug/g	

This PT is intended for use by laboratories that utilize a strong acid digestion (e.g., aqua-regia) but is not intended for use with HF. Please note the different reporting units for mercury.

C18 Polycyclic Aromatic Hydrocarbons (PAHs) in Soil

Analyte	Concentration Range	Information
Acenaphthene	0.2 - 50 µg/g	Jan/Jun 25 – 40 g Preservative: None
Acenaphthylene	0.2 - 50 µg/g	
Anthracene	0.2 - 50 µg/g	
Benzo(a)anthracene	0.2 - 50 µg/g	
Benzo(a)pyrene	0.2 - 50 µg/g	
Benzo(b)fluoranthene	0.2 - 50 µg/g	
Benzo(b+j)fluoranthene	0.2 - 50 µg/g	
Benzo(g,h,i)perylene	0.2 - 50 µg/g	
Benzo(k)fluoranthene	0.2 - 50 µg/g	
Chrysene	0.2 - 50 µg/g	
Dibenzo(a,h)anthracene	0.2 - 50 µg/g	
Fluoranthene	0.2 - 50 µg/g	
Fluorene	0.2 - 50 µg/g	
Indeno(1,2,3-cd)pyrene	0.2 - 50 µg/g	
Naphthalene	0.2 - 50 µg/g	
Phenanthrene	0.2 - 50 µg/g	
Pyrene	0.2 - 50 µg/g	

C31A Petroleum Hydrocarbons in Soil

Analyte	Concentration Range	Information
F1: (C6-C10)	30 – 3500 mg/kg	Jan/Jun 8 g Preservative: Methanol
Benzene	0.1 - 10 mg/kg	
Ethylbenzene	10 – 200 mg/kg	
m/p- Xylene	100 – 500 mg/kg	
o-Xylene	100 – 500 mg/kg	
Toluene	10 – 200 mg/kg	
VH (C6-C10)	30 – 3500 mg/kg	

Samples are intended for use by the CCME PHC method.

C31B Petroleum Hydrocarbons in Soil

Analyte	Concentration Range	Information
F2: C10-C16	150 – 6500 mg/kg	Jan/Jun 40 g Preservative: Freezing
F3: C16-C34	250 – 12500 mg/kg	
F4: C34-C50	1000 – 12500 mg/kg	
F4: Gravimetric	1000 – 30000 mg/kg	

Samples are intended for use by the CCME PHC method.

C35 PCBs in Soil

Analyte	Concentration Range	Information
Aroclor 1242	5 - 500 µg/g	Jan/Jun 30 g Preservative: None
Aroclor 1248	5 - 500 µg/g	
Aroclor 1254	5 - 500 µg/g	
Aroclor 1260	5 - 500 µg/g	
Total PCB	5 - 500 µg/g	

Total PCBs in each sample will contain one of the aroclors listed above.

C36 Volatile Organic Compounds (VOCs) in Soil

Analyte	Concentration Range	Information
1,1,1-Trichloroethane	6 – 200 µg/g	Jan/Jun 8 g Preservative: Methanol
1,1,2,2-Tetrachloroethane	6 – 200 µg/g	
1,1,2-Trichloroethane	6 – 200 µg/g	
1,1-Dichloroethane	6 – 200 µg/g	
1,1-Dichloroethylene	6 – 200 µg/g	
1,2-Dichlorobenzene	6 – 200 µg/g	
1,2-Dichloroethane	6 – 200 µg/g	
1,2-Dichloropropane	6 – 200 µg/g	
1,3-Dichlorobenzene	6 – 200 µg/g	
1,4-Dichlorobenzene	6 – 200 µg/g	
Acetone (2-Propanone)	6 – 200 µg/g	
Benzene	2 – 200 µg/g	
Bromodichloromethane	20 – 500 µg/g	
Bromoform	20 – 500 µg/g	
Carbon Tetrachloride	6 – 200 µg/g	
Chlorobenzene	6 – 200 µg/g	
Chlorodibromomethane	20 – 500 µg/g	
Chloroform	20 – 500 µg/g	
cis-1,2-Dichloroethylene	6 – 200 µg/g	
cis-1,3-Dichloropropene	6 – 200 µg/g	
Dichloromethane	6 – 200 µg/g	
Ethylbenzene	2 – 200 µg/g	
Ethylene Dibromide	6 – 200 µg/g	
m/p-xylene	6 – 200 µg/g	
Methyl Ethyl Ketone	6 – 200 µg/g	
Methyl t-butyl ether (MTBE)	6 – 200 µg/g	
Methyl isobutyl Ketone (MIBK)	6 – 200 µg/g	
o-xylene	6 – 200 µg/g	
Styrene	6 – 200 µg/g	
Tetrachloroethylene	6 – 200 µg/g	
Toluene	6 – 200 µg/g	

C36 Volatile Organic Compounds (VOCs) in Soil

Analyte	Concentration Range	Information
trans-1,2-Dichloroethylene	6 – 200 µg/g	
trans-1,3-Dichloropropene	6 – 200 µg/g	
Trichloroethylene	6 – 200 µg/g	
Trichlorofluoromethane	6 – 200 µg/g	

C38 Volatile Organic Compounds in Soil (TCLP)

Analyte	Concentration Range	Information
1,2-Dichlorobenzene	0.025 – 5 mg/L	Jan/Jun 100 g Preservative: Freezing
1,2-Dichloroethane	0.025 – 5 mg/L	
1,4-Dichlorobenzene	0.025 – 5 mg/L	
Benzene	0.025 – 5 mg/L	
Carbon tetrachloride	0.025 – 5 mg/L	
Chlorobenzene	0.025 – 5 mg/L	
Chloroform	0.025 – 5 mg/L	
Dichloromethane	0.025 – 5 mg/L	
Methyl Ethyl Ketone	1.0 – 5 mg/L	
Tetrachloroethylene	0.025 – 5 mg/L	
Trichloroethylene	0.025 – 5 mg/L	

This PT is restricted to participants that use the EPA 1311 *Toxicity Characteristic Leaching Procedure*

C39 Inorganics in Soil (TCLP)

Analyte	Concentration Range	Information
Silver	0.0010 – 0.050 mg/L	Jan/Jun 200 g Preservative: None
Arsenic	0.10 – 5.0 mg/L	
Boron	0.50 – 10.0 mg/L	
Barium	0.10 – 2.0 mg/L	
Cadmium	0.0010 – 0.050 mg/L	
Chromium	0.010 – 0.50 mg/L	
Lead	0.010 – 0.50 mg/L	
Selenium	0.050 – 1.0 mg/L	
Uranium	0.050 – 1.0 mg/L	
Mercury	0.0001 – 0.050 mg/L	
Fluoride	10 – 100 mg/L	
Nitrate-N	2 – 50 mg/L	
Nitrate and Nitrite as N	2 – 70 mg/L	
Cyanide (Weak Acid Dissociable)	0.1 – 5 mg/L	

This PT is restricted to participants that use the EPA 1311 *Toxicity Characteristic Leaching Procedure*

C43 Solids in Soil

Analyte	Concentration Range	Information
Fixed Solids*	80 – 100%	Jan/Jun 100 g Preservative: None
Percent Moisture	1 – 30%	
Total Solids	70 – 100%	
Volatile Solids*	1 – 20%	

C44 Nutrients in Soil

Analyte	Concentration Range	Information
Ammonia - N	300 - 3000 µg/g	Jan/Jun 250 g Preservative: None
Kjeldahl Nitrogen	400 – 4000 µg/g	
Phosphorus	300 – 3000 µg/g	
Organic Carbon	1000 – 15000 µg/g	

C45 Anions in Soil

Analyte	Concentration Range	Information
Bromide	10 - 100 µg/g	Jan/Jun 250 g Preservative: None
Chloride	200 - 1000 µg/g	
Fluoride	25 - 500 µg/g	
Nitrate-N	25 - 500 µg/g	
Phosphate-P*	25 – 500 µg/g	
Sulphate	25 – 2000 µg/g	
% Saturation		

C51 Glyphosate in Soil

Analyte	Concentration Range	Information
Glyphosate	0.5 – 5.0 mg/kg	Jan/Jun 30g sample in 20mL amber ampoule Preservative: None

C53 PCB Congeners in Soil

Analyte	Concentration Range	Information
PCB Congeners (209 analytes – See Appendix 1)	2 - 500 ng/g	Mar/Oct 20g sample in 20ml amber ampoule Preservative: None

C54 PFAS in Soil

Analyte	Concentration Range	Information
PFAS (EPA 1633 – 40 Analytes, See Appendix 2)	10 – 200 ng/g	Mar/Oct 2ml ampoule per sample. Plus 30g blank soil in sealed 20ml ampoule Preservative: None

C55 Alcohols in Soil

Analyte	Concentration Range	Information
Ethanol	5 – 200 ug/g	Mar/Oct 20 ml amber ampoule Preservative: None
Isobutanol	5 – 200 ug/g	
Isopropyl Alcohol	5 – 200 ug/g	
Methanol	5 – 200 ug/g	
n-Butanol	5 – 200 ug/g	
Pentanol	5 – 200 ug/g	
Propanol	5 – 200 ug/g	
sec-Butanol	5 – 200 ug/g	

C74 Hexavalent Chromium in Soil

Analyte	Concentration Range	Information
Hexavalent Chromium	40 – 300 µg/g	Jan/Jun 40 g Preservative: None

C75 Particle Size in Soil

Analyte	Concentration Range	Information
Percent Sand		Jan/Jun 100 g Preservative: None
Percent Silt		
Percent Clay		

C76 Oil and Grease in Soil

Analyte	Concentration Range	Information
Total Oil and Grease	300 - 3000 µg/g	Jan/Jun 40 g Preservative: None

C77 Pesticides in Soil		
Analyte	**Concentration Range**	**Information**
p,p'-DDT	50 - 500 µg/kg	Jan/Jun 30 g ampoule Preservative: None
Aldrin	50 - 500 µg/kg	
Alpha-BHC	50 - 500 µg/kg	
Alpha-Chlordane	50 - 500 µg/kg	
Beta-BHC	50 - 500 µg/kg	
Dieldrin	50 - 500 µg/kg	
Endosulfan I	50 - 500 µg/kg	
Endosulfan II	50 - 500 µg/kg	
Endrin	50 - 500 µg/kg	
Lindane	50 - 500 µg/kg	
Trans-Chlordane	50 - 500 µg/kg	
Heptachlor	50 - 500 µg/kg	
Heptachlor Epoxide	50 - 500 µg/kg	
Methoxychlor	50 - 500 µg/kg	

5.5 OIL

C08 PCBs in Oil		
Analyte	**Concentration Range**	**Information**
Aroclor 1242	5.0 – 150 µg/g	Jan/Jun 3 -5 mL vial Preservative: None
Aroclor 1248	5.0 – 150 µg/g	
Aroclor 1254	5.0 – 150 µg/g	
Aroclor 1260	5.0 – 150 µg/g	
Total PCB	5.0 – 150 µg/g	
Total PCBs in each sample will contain one of the aroclors listed above.		

5.6 AIR

C09 Metals on Filters		
Analyte	**Concentration Range**	**Information**
Cadmium	4.0 – 30 µg/HVF	Jan/Jun 47 mm quartz filter Preservative: None
Copper	4.0 – 60 µg/HVF	
Lead	4.0 – 80 µg/HVF	
Zinc	4.0 – 60 µg/HVF	
PT samples are provided as high-volume quartz filters.		

C20 Asbestos*		
Analyte	**Concentration Range**	**Information**
Asbestos		Jan/Mar/Jun/Oct Slide/Wedge Preservative: None
Requirement – participation in all 4 PT Studies.		

C20B Bulk Asbestos*		
Analyte	**Concentration Range**	**Information**
Bulk Asbestos		Jan/Mar/Jun/Oct Slide/Wedge Preservative: None
Requirement – participation in all 4 PT Studies.		

5.7 TOXICOLOGY

C11 Rainbow Trout LC50		
Analyte	**Concentration Range**	**Information**
Trout 96 Hour LC50	2 – 10 mL/L	Mar/Oct 1000 mL Preservative: None

C12 *Daphnia* LC50		
Analyte	**Concentration Range**	**Information**
Daphnia 48 Hour LC50	20 – 100 mL/L	Mar/Oct 500 mL Preservative: None

C13 Microtox™		
Analyte	**Concentration Range**	**Information**
Microtox™ 15 Minute IC50	4 – 10 mL/L	Mar/Oct 100 mL Preservative: None

5.8 CANNABIS-CHEMISTRY

C70 Potency in Cannabis Ψ		
Analyte	**Concentration Range**	**Information**
Tetrahydrocannabinol (THC)	0.1 – 25%	Mar/Oct 2 x 1 g vials Preservative: None
Tetrahydrocannabinolic Acid (THCA)	0.1 – 25%	
Cannabidiol (CBD)	0.1 – 25%	
Cannabidiolic Acid (CBDA)	0.1 – 25%	

C71 Pesticides in Cannabis Ψ		
Analyte	**Concentration Range**	**Information**
Acephate	0.1 – 1 µg/g	Mar/Oct 6 x 1 g vials blank cannabis 2 x spiking solutions Preservative: None
Aldicarb	5.0 – 20 µg/g	
Azoxystrobin	0.1 – 1 µg/g	
Bifenazate	0.1 – 1 µg/g	
Boscalid	0.1 – 1 µg/g	
Carbaryl	0.25 – 5 µg/g	
Carbofuran	0.1 – 1 µg/g	
Diazinon	0.1 – 1 µg/g	
Dichlorvos (DDVP)	0.5 – 10 µg/g	
Dimethoate	0.1 – 1 µg/g	
Ethoprophos	0.1 – 1 µg/g	
Etoxazole	0.1 – 1 µg/g	
Fipronil	0.3 – 1.2 µg/g	
Fludioxonil	0.1 – 1 µg/g	
Imidacloprid	0.1 – 1 µg/g	
Malathion	0.1 – 1 µg/g	
Metalaxyl	0.1 – 1 µg/g	
Methiocarb	0.1 – 1 µg/g	
Methomyl	0.25 -1 µg/g	
Myclobutanil	0.1 – 1 µg/g	
Oxamyl	15 – 60 µg/g	
Paclobutrazol	0.1 – 1 µg/g	
Propoxur (Baygon)	0.1 – 1 µg/g	
Spiromesifen	15 – 60 µg/g	
Spirotetramat	0.1 – 1 µg/g	
Thiamethoxam	0.1 – 1 µg/g	
Trifloxystrobin	0.1 – 1 µg/g	

C72 Metals in Hemp Ψ

Analyte	Concentration Range	Information
Arsenic	0.1 - 10 µg/g	Mar/Oct 2 x 2 g vials Preservative: None
Cadmium	0.1 - 50 µg/g	
Chromium	0.1 - 10 µg/g	
Lead	0.1 - 10 µg/g	
Mercury	0.05 - 2 µg/g	

C73 Residual Solvents in Hemp Seed Oil Ψ

Analyte	Concentration Range	Information
1-Butanol (n-Butanol)	500 - 7000 µg/g	Mar/Oct 5 g vial blank hemp oil 4 x spiking solutions Preservative: None
1-Pentanol	500 - 7000 µg/g	
1-Propanol (Propanol)	500 - 7000 µg/g	
2-Butanol	500 - 7000 µg/g	
2-Butanone (Methyl ethyl ketone, MEK)	500 - 7000 µg/g	
2-Propanol (Isopropyl alcohol)	500 - 7000 µg/g	
3-Methyl-1-butanol	500 - 7000 µg/g	
Acetone (2-Propanone)	500 - 7000 µg/g	
Anisole	500 - 7000 µg/g	
Butane	500 - 7000 µg/g	
Butyl acetate	500 - 7000 µg/g	
Dimethyl sulfoxide	500 - 7000 µg/g	
Ethanol	500 - 7000 µg/g	
Ethyl acetate	500 - 7000 µg/g	
Ethyl ether	500 - 7000 µg/g	
Heptane	500 - 7000 µg/g	
Isobutanol (2-Methyl-1-propanol)	500 - 7000 µg/g	
Isobutyl acetate	500 - 7000 µg/g	
Isopropyl acetate	500 - 7000 µg/g	
Methyl acetate	500 - 7000 µg/g	
Pentane	500 - 7000 µg/g	
Propane	500 - 7000 µg/g	
Propyl acetate	500 - 7000 µg/g	
Triethylamine	500 - 7000 µg/g	

C78 Water Activity/% Moisture in Hemp

Analyte	Concentration Range	Information
Percent Moisture	1 - 60 %	Mar/Oct 2 x 6 g vials Preservative: None
Water Activity*	0.1 - 10 wa	

6.0 Special Notes

Ψ Cannabis PT samples will only be shipped to laboratories that hold a valid Health Canada licence for cannabis testing.

* These test groups are not currently included in PT Canada's A2LA scope of accreditation. Please refer to the A2LA website for the most current coverage.

** Microbiology samples within Canada will not be shipped without the appropriate Public Health Agency of Canada license or a claim that the participant is exempt from licencing.

Fees: With the exception of Canadian government laboratories that have provided a valid purchase order, all fees must be paid in advance. Failure to make payment will result in samples not being shipped. All fees are in Canadian dollars.

Shipping Fees: Shipments to countries other than Canada shall pay a shipping cost equal to 25% of the sample fees.

All Test Groups: The indicated concentration ranges are approximate values only. Actual concentrations may be higher or lower than those indicated.

General Organics: Because the assigned values used for the calculation of z-scores are based on consensus data, laboratories that are using isotope dilution procedures may observe a bias relative to the assigned values.

7.0 History of Changes

Date	Rev. No.	Sections	Changes
11/03/2025	1.20	3.0 5.0 5.4 5.9	Updated schedule Updated testing fees and Test Groups offered Changed C31B F4: Gravimetric concentration New section added
12/08/2025	1.21	5.4 & 5.9	Corrected the concentration ranges
02/04/2026	1.22	5.2/5.4/5.7	Changed names of analytes in C06A & C77 Changed C12 concentration range
03/03/2026	1.23	5.4	Added Thallium to C17
03/18/2026	1.24	5.6	Added a requirement for C20
05/19/2026	1.25	5.1	Updated concentration range for C01A
05/22/2026	1.26	5.1	Changed units in C02 for 3 analytes from ug/L to mg/L
10/29/2026	1.27	3, 5 & 8	Updated Schedule, analytes and added Appendix

8.0 Appendices

8.1 APPENDIX 1 – LIST OF PCB CONGENERS (209)

Revised as of November 2003

Table of PCB Species by Congener Number

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
	1336-36-3		Polychlorinated biphenyl (PCB)	Category
CP1_---_--_-	2051-60-7	1	2-Chlorobiphenyl	Congener
CP0_---_--_-	2051-61-8	2	3-Chlorobiphenyl	Congener
CP0_---_--_-	2051-62-9	3	4-Chlorobiphenyl	Congener
---_---_--_-	13029-08-8	4	2,2'-Dichlorobiphenyl	Congener
CP1_---_--_-	16605-91-7	5	2,3-Dichlorobiphenyl	Congener
CP1_---_--_-	25569-80-6	6	2,3'-Dichlorobiphenyl	Congener
CP1_---_--_-	33284-50-3	7	2,4-Dichlorobiphenyl	Congener
CP1_---_--_-	34883-43-7	8	2,4'-Dichlorobiphenyl	Congener
CP1_---_--_-	34883-39-1	9	2,5-Dichlorobiphenyl	Congener
---_---_--_-	33146-45-1	10	2,6-Dichlorobiphenyl	Congener
CP0_---_--_2M	2050-67-1	11	3,3'-Dichlorobiphenyl	Congener
CP0_---_--_-	2974-92-7	12	3,4-Dichlorobiphenyl	Congener
CP0_---_--_-	2974-90-5	13	3,4'-Dichlorobiphenyl	Congener
CP0_---_--_2M	34883-41-5	14	3,5-Dichlorobiphenyl	Congener
CP0_---_PP_-	2050-68-2	15	4,4'-Dichlorobiphenyl	Congener
---_---_--_-	38444-78-9	16	2,2',3-Trichlorobiphenyl	Congener
---_---_--_-	37680-66-3	17	2,2',4-Trichlorobiphenyl	Congener
---_---_--_-	37680-65-2	18	2,2',5-Trichlorobiphenyl	Congener
---_---_--_-	38444-73-4	19	2,2',6-Trichlorobiphenyl	Congener
CP1_---_--_2M	38444-84-7	20	2,3,3'-Trichlorobiphenyl	Congener
CP1_---_--_-	55702-46-0	21	2,3,4-Trichlorobiphenyl	Congener
CP1_---_--_-	38444-85-8	22	2,3,4'-Trichlorobiphenyl	Congener
CP1_---_--_2M	55720-44-0	23	2,3,5-Trichlorobiphenyl	Congener
---_---_--_-	55702-45-9	24	2,3,6-Trichlorobiphenyl	Congener
CP1_---_--_-	55712-37-3	25	2,3',4-Trichlorobiphenyl	Congener
CP1_---_--_2M	38444-81-4	26	2,3',5-Trichlorobiphenyl	Congener
---_---_--_-	38444-76-7	27	2,3',6-Trichlorobiphenyl	Congener
CP1_---_PP_-	7012-37-5	28	2,4,4'-Trichlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
CP1_---_--_-	15862-07-4	29	2,4,5-Trichlorobiphenyl	Congener
---_---_--_-	35693-92-6	30	2,4,6-Trichlorobiphenyl	Congener
CP1_---_--_-	16606-02-3	31	2,4',5-Trichlorobiphenyl	Congener
---_---_--_-	38444-77-8	32	2,4',6-Trichlorobiphenyl	Congener
CP1_---_--_-	38444-86-9	33	2,3',4'-Trichlorobiphenyl	Congener
CP1_---_--_2M	37680-68-5	34	2,3',5'-Trichlorobiphenyl	Congener
CP0_---_--_2M	37680-69-6	35	3,3',4-Trichlorobiphenyl	Congener
CP0_---_--_2M	38444-87-0	36	3,3',5-Trichlorobiphenyl	Congener
CP0_---_PP_-	38444-90-5	37	3,4,4'-Trichlorobiphenyl	Congener
CP0_---_--_2M	53555-66-1	38	3,4,5-Trichlorobiphenyl	Congener
CP0_---_--_2M	38444-88-1	39	3,4',5-Trichlorobiphenyl	Congener
---_4CL_--_2M	38444-93-8	40	2,2',3,3'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	52663-59-9	41	2,2',3,4-Tetrachlorobiphenyl	Congener
---_4CL_--_-	36559-22-5	42	2,2',3,4'-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	70362-46-8	43	2,2',3,5-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	41464-39-5	44	2,2',3,5'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	70362-45-7	45	2,2',3,6-Tetrachlorobiphenyl	Congener
---_4CL_--_-	41464-47-5	46	2,2',3,6'-Tetrachlorobiphenyl	Congener
---_4CL_PP_-	2437-79-8	47	2,2',4,4'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	70362-47-9	48	2,2',4,5-Tetrachlorobiphenyl	Congener
---_4CL_--_-	41464-40-8	49	2,2',4,5'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	62796-65-0	50	2,2',4,6-Tetrachlorobiphenyl	Congener
---_4CL_--_-	68194-04-7	51	2,2',4,6'-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	35693-99-3	52	2,2',5,5'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	41464-41-9	53	2,2',5,6'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	15968-05-5	54	2,2',6,6'-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	74338-24-2	55	2,3,3',4-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	41464-43-1	56	2,3,3',4'-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	70424-67-8	57	2,3,3',5-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	41464-49-7	58	2,3,3',5'-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	74472-33-6	59	2,3,3',6-Tetrachlorobiphenyl	Congener
CP1_4CL_PP_-	33025-41-1	60	2,3,4,4'-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	33284-53-6	61	2,3,4,5-Tetrachlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
---_4CL_--_-	54230-22-7	62	2,3,4,6-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	74472-34-7	63	2,3,4',5-Tetrachlorobiphenyl	Congener
---_4CL_--_-	52663-58-8	64	2,3,4',6-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	33284-54-7	65	2,3,5,6-Tetrachlorobiphenyl	Congener
CP1_4CL_PP_-	32598-10-0	66	2,3',4,4'-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	73575-53-8	67	2,3',4,5-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	73575-52-7	68	2,3',4,5'-Tetrachlorobiphenyl	Congener
---_4CL_--_-	60233-24-1	69	2,3',4,6-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	32598-11-1	70	2,3',4',5-Tetrachlorobiphenyl	Congener
---_4CL_--_-	41464-46-4	71	2,3',4',6-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	41464-42-0	72	2,3',5,5'-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	74338-23-1	73	2,3',5',6-Tetrachlorobiphenyl	Congener
CP1_4CL_PP_-	32690-93-0	74	2,4,4',5-Tetrachlorobiphenyl	Congener
---_4CL_PP_-	32598-12-2	75	2,4,4',6-Tetrachlorobiphenyl	Congener
CP1_4CL_--_2M	70362-48-0	76	2,3',4',5'-Tetrachlorobiphenyl	Congener
CP0_4CL_PP_2M	32598-13-3	77	3,3',4,4'-Tetrachlorobiphenyl	Congener
CP0_4CL_--_2M	70362-49-1	78	3,3',4,5-Tetrachlorobiphenyl	Congener
CP0_4CL_--_2M	41464-48-6	79	3,3',4,5'-Tetrachlorobiphenyl	Congener
CP0_4CL_--_2M	33284-52-5	80	3,3',5,5'-Tetrachlorobiphenyl	Congener
CP0_4CL_PP_2M	70362-50-4	81	3,4,4',5-Tetrachlorobiphenyl	Congener
---_4CL_--_2M	52663-62-4	82	2,2',3,3',4-Pentachlorobiphenyl	Congener
---_4CL_--_2M	60145-20-2	83	2,2',3,3',5-Pentachlorobiphenyl	Congener
---_4CL_--_2M	52663-60-2	84	2,2',3,3',6-Pentachlorobiphenyl	Congener
---_4CL_PP_-	65510-45-4	85	2,2',3,4,4'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	55312-69-1	86	2,2',3,4,5-Pentachlorobiphenyl	Congener
---_4CL_--_2M	38380-02-8	87	2,2',3,4,5'-Pentachlorobiphenyl	Congener
---_4CL_--_-	55215-17-3	88	2,2',3,4,6-Pentachlorobiphenyl	Congener
---_4CL_--_-	73575-57-2	89	2,2',3,4,6'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	68194-07-0	90	2,2',3,4',5-Pentachlorobiphenyl	Congener
---_4CL_--_-	68194-05-8	91	2,2',3,4',6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	52663-61-3	92	2,2',3,5,5'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	73575-56-1	93	2,2',3,5,6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	73575-55-0	94	2,2',3,5,6'-Pentachlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
---_4CL_--_2M	38379-99-6	95	2,2',3,5',6-Pentachlorobiphenyl	Congener
---_4CL_--_-	73575-54-9	96	2,2',3,6,6'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	41464-51-1	97	2,2',3,4',5'-Pentachlorobiphenyl	Congener
---_4CL_--_-	60233-25-2	98	2,2',3,4',6'-Pentachlorobiphenyl	Congener
---_4CL_PP_-	38380-01-7	99	2,2',4,4',5-Pentachlorobiphenyl	Congener
---_4CL_PP_-	39485-83-1	100	2,2',4,4',6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	37680-73-2	101	2,2',4,5,5'-Pentachlorobiphenyl	Congener
---_4CL_--_-	68194-06-9	102	2,2',4,5,6'-Pentachlorobiphenyl	Congener
---_4CL_--_-	60145-21-3	103	2,2',4,5',6-Pentachlorobiphenyl	Congener
---_4CL_--_-	56558-16-8	104	2,2',4,6,6'-Pentachlorobiphenyl	Congener
CP1_4CL_PP_2M	32598-14-4	105	2,3,3',4,4'-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	70424-69-0	106	2,3,3',4,5-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	70424-68-9	107	2,3,3',4',5-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	70362-41-3	108	2,3,3',4,5'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	74472-35-8	109	2,3,3',4,6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	38380-03-9	110	2,3,3',4',6-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	39635-32-0	111	2,3,3',5,5'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	74472-36-9	112	2,3,3',5,6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	68194-10-5	113	2,3,3',5',6-Pentachlorobiphenyl	Congener
CP1_4CL_PP_2M	74472-37-0	114	2,3,4,4',5-Pentachlorobiphenyl	Congener
---_4CL_PP_-	74472-38-1	115	2,3,4,4',6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	18259-05-7	116	2,3,4,5,6-Pentachlorobiphenyl	Congener
---_4CL_--_2M	68194-11-6	117	2,3,4',5,6-Pentachlorobiphenyl	Congener
CP1_4CL_PP_2M	31508-00-6	118	2,3',4,4',5-Pentachlorobiphenyl	Congener
---_4CL_PP_-	56558-17-9	119	2,3',4,4',6-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	68194-12-7	120	2,3',4,5,5'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	56558-18-0	121	2,3',4,5',6-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	76842-07-4	122	2,3,3',4',5'-Pentachlorobiphenyl	Congener
CP1_4CL_PP_2M	65510-44-3	123	2,3',4,4',5'-Pentachlorobiphenyl	Congener
CP1_4CL_--_2M	70424-70-3	124	2,3',4',5,5'-Pentachlorobiphenyl	Congener
---_4CL_--_2M	74472-39-2	125	2,3',4',5',6-Pentachlorobiphenyl	Congener
CP0_4CL_PP_2M	57465-28-8	126	3,3',4,4',5-Pentachlorobiphenyl	Congener
CP0_4CL_--_2M	39635-33-1	127	3,3',4,5,5'-Pentachlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
---_4CL_PP_2M	38380-07-3	128	2,2',3,3',4,4'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	55215-18-4	129	2,2',3,3',4,5-Hexachlorobiphenyl	Congener
---_4CL_--_2M	52663-66-8	130	2,2',3,3',4,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	61798-70-7	131	2,2',3,3',4,6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	38380-05-1	132	2,2',3,3',4,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	35694-04-3	133	2,2',3,3',5,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	52704-70-8	134	2,2',3,3',5,6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	52744-13-5	135	2,2',3,3',5,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	38411-22-2	136	2,2',3,3',6,6'-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	35694-06-5	137	2,2',3,4,4',5-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	35065-28-2	138	2,2',3,4,4',5'-Hexachlorobiphenyl	Congener
---_4CL_PP_-	56030-56-9	139	2,2',3,4,4',6-Hexachlorobiphenyl	Congener
---_4CL_PP_-	59291-64-4	140	2,2',3,4,4',6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	52712-04-6	141	2,2',3,4,5,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	41411-61-4	142	2,2',3,4,5,6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	68194-15-0	143	2,2',3,4,5,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	68194-14-9	144	2,2',3,4,5',6-Hexachlorobiphenyl	Congener
---_4CL_--_-	74472-40-5	145	2,2',3,4,6,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	51908-16-8	146	2,2',3,4',5,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	68194-13-8	147	2,2',3,4',5,6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	74472-41-6	148	2,2',3,4',5,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	38380-04-0	149	2,2',3,4',5',6-Hexachlorobiphenyl	Congener
---_4CL_--_-	68194-08-1	150	2,2',3,4',6,6'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	52663-63-5	151	2,2',3,5,5',6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	68194-09-2	152	2,2',3,5,6,6'-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	35065-27-1	153	2,2',4,4',5,5'-Hexachlorobiphenyl	Congener
---_4CL_PP_-	60145-22-4	154	2,2',4,4',5,6'-Hexachlorobiphenyl	Congener
---_4CL_PP_-	33979-03-2	155	2,2',4,4',6,6'-Hexachlorobiphenyl	Congener
CP1_4CL_PP_2M	38380-08-4	156	2,3,3',4,4',5-Hexachlorobiphenyl	Congener
CP1_4CL_PP_2M	69782-90-7	157	2,3,3',4,4',5'-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	74472-42-7	158	2,3,3',4,4',6-Hexachlorobiphenyl	Congener
CP1_4CL_--_2M	39635-35-3	159	2,3,3',4,5,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	41411-62-5	160	2,3,3',4,5,6-Hexachlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
---_4CL_--_2M	74472-43-8	161	2,3,3',4,5',6-Hexachlorobiphenyl	Congener
CP1_4CL_--_2M	39635-34-2	162	2,3,3',4',5,5'-Hexachlorobiphenyl	Congener
---_4CL_--_2M	74472-44-9	163	2,3,3',4',5,6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	74472-45-0	164	2,3,3',4',5',6-Hexachlorobiphenyl	Congener
---_4CL_--_2M	74472-46-1	165	2,3,3',5,5',6-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	41411-63-6	166	2,3,4,4',5,6-Hexachlorobiphenyl	Congener
CP1_4CL_PP_2M	52663-72-6	167	2,3',4,4',5,5'-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	59291-65-5	168	2,3',4,4',5',6-Hexachlorobiphenyl	Congener
CP0_4CL_PP_2M	32774-16-6	169	3,3',4,4',5,5'-Hexachlorobiphenyl	Congener
---_4CL_PP_2M	35065-30-6	170	2,2',3,3',4,4',5-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	52663-71-5	171	2,2',3,3',4,4',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-74-8	172	2,2',3,3',4,5,5'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	68194-16-1	173	2,2',3,3',4,5,6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	38411-25-5	174	2,2',3,3',4,5,6'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	40186-70-7	175	2,2',3,3',4,5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-65-7	176	2,2',3,3',4,6,6'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-70-4	177	2,2',3,3',4,5',6'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-67-9	178	2,2',3,3',5,5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-64-6	179	2,2',3,3',5,6,6'-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	35065-29-3	180	2,2',3,4,4',5,5'-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	74472-47-2	181	2,2',3,4,4',5,6-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	60145-23-5	182	2,2',3,4,4',5,6'-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	52663-69-1	183	2,2',3,4,4',5',6-Heptachlorobiphenyl	Congener
---_4CL_PP_-	74472-48-3	184	2,2',3,4,4',6,6'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52712-05-7	185	2,2',3,4,5,5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	74472-49-4	186	2,2',3,4,5,6,6'-Heptachlorobiphenyl	Congener
---_4CL_--_2M	52663-68-0	187	2,2',3,4',5,5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	74487-85-7	188	2,2',3,4',5,6,6'-Heptachlorobiphenyl	Congener
CP1_4CL_PP_2M	39635-31-9	189	2,3,3',4,4',5,5'-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	41411-64-7	190	2,3,3',4,4',5,6-Heptachlorobiphenyl	Congener
---_4CL_PP_2M	74472-50-7	191	2,3,3',4,4',5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	74472-51-8	192	2,3,3',4,5,5',6-Heptachlorobiphenyl	Congener
---_4CL_--_2M	69782-91-8	193	2,3,3',4',5,5',6-Heptachlorobiphenyl	Congener

Descriptor*	CASRN	Congener Number	IUPAC Name	Type
---_4CL_PP_2M	35694-08-7	194	2,2',3,3',4,4',5,5'-Octachlorobiphenyl	Congener
---_4CL_PP_2M	52663-78-2	195	2,2',3,3',4,4',5,6-Octachlorobiphenyl	Congener
---_4CL_PP_2M	42740-50-1	196	2,2',3,3',4,4',5,6'-Octachlorobiphenyl	Congener
---_4CL_PP_2M	33091-17-7	197	2,2',3,3',4,4',6,6'-Octachlorobiphenyl	Congener
---_4CL_--_2M	68194-17-2	198	2,2',3,3',4,5,5',6-Octachlorobiphenyl	Congener
---_4CL_--_2M	52663-75-9	199	2,2',3,3',4,5,5',6'-Octachlorobiphenyl	Congener
---_4CL_--_2M	52663-73-7	200	2,2',3,3',4,5,6,6'-Octachlorobiphenyl	Congener
---_4CL_--_2M	40186-71-8	201	2,2',3,3',4,5',6,6'-Octachlorobiphenyl	Congener
---_4CL_--_2M	2136-99-4	202	2,2',3,3',5,5',6,6'-Octachlorobiphenyl	Congener
---_4CL_PP_2M	52663-76-0	203	2,2',3,4,4',5,5',6-Octachlorobiphenyl	Congener
---_4CL_PP_2M	74472-52-9	204	2,2',3,4,4',5,6,6'-Octachlorobiphenyl	Congener
---_4CL_PP_2M	74472-53-0	205	2,3,3',4,4',5,5',6-Octachlorobiphenyl	Congener
---_4CL_PP_2M	40186-72-9	206	2,2',3,3',4,4',5,5',6-Nonachlorobiphenyl	Congener
---_4CL_PP_2M	52663-79-3	207	2,2',3,3',4,4',5,6,6'-Nonachlorobiphenyl	Congener
---_4CL_--_2M	52663-77-1	208	2,2',3,3',4,5,5',6,6'-Nonachlorobiphenyl	Congener
---_---_--_-	2051-24-3	209	Decachlorobiphenyl	Congener

*Key to Table Columns

Descriptors	
CP0 / CP1	These 68 co-planar congeners include 20 with chlorine substitution at none (CP0, non-ortho) and 48 with chlorine substitution at only one (CP1, mono-ortho) of the 2, 2', 6, or 6' positions.
4CL	These 169 congeners have a total of four or more chlorine substituents (regardless of position).
PP	These 54 congeners have both para positions (4 and 4') chlorinated.
2M	These 140 congeners have two or more of the meta positions (3, 3', 5, and 5') chlorinated.
NOTE: The 12 "Dioxin-like" congeners are those that display all four of the above Descriptors.	
CASRN	
Chemical Abstracts Service (CAS) Registry Number.	
Congener Number	
The numbering presented in the table is identical to that published by Ballschmiter et al., 1992.	
IUPAC Name	

The names presented in the table are the IUPAC names.
Type
The type of the PCB entity: Congener, Homolog, Mixture, Category.

8.2 APPENDIX 2 – LIST OF PFAS (40)

PFAS, EPA 1633 Analyte List (40 Analytes)

Analyte Description	CAS Number
Perfluorobutanoic acid (PFBA)	375-22-4
Perfluoropentanoic acid (PFPeA)	2706-90-3
Perfluorohexanoic acid (PFHxA)	307-24-4
Perfluoroheptanoic acid (PFHpA)	375-85-9
Perfluorooctanoic acid (PFOA)	335-67-1
Perfluorononanoic acid (PFNA)	375-95-1
Perfluorodecanoic acid (PFDA)	335-76-2
Perfluoroundecanoic acid (PFUnA)	2058-94-8
Perfluorododecanoic acid (PFDoA)	307-55-1
Perfluorotridecanoic acid (PFTriA)	72629-94-8
Perfluorotetradecanoic acid (PFTeA)	376-06-7
Perfluorobutanesulfonic acid (PFBS)	375-73-5
Perfluoropentanesulfonic acid (PFPeS)	2706-91-4
Perfluorohexanesulfonic acid (PFHxS)	355-46-4
Perfluoroheptanesulfonic Acid (PFHpS)	375-92-8
Perfluorooctanesulfonic acid (PFOS)	1763-23-1
Perfluorononanesulfonic acid (PFNS)	68259-12-1
Perfluorodecanesulfonic acid (PFDS)	335-77-3
Perfluorododecanesulfonic acid (PFDoS)	79780-39-5
Perfluorooctanesulfonamide (FOSA)	754-91-6
NMeFOSAA	2355-31-9

NEtFOSAA	2991-50-6
4:2 FTS	757124-72-4
6:2 FTS	27619-97-2
8:2 FTS	39108-34-4
NEtFOSA	4151-50-2
NMeFOSA	31506-32-8
NMeFOSE	24448-09-7
NEtFOSE	1691-99-2
9Cl-PF3ONS	756426-58-1
HFPO-DA (GenX)	13252-13-6
11Cl-PF3OUdS	763051-92-9
ADONA	919005-14-4
3:3 FTCA	356-02-5
5:3 FTCA	914637-49-3
7:3 FTCA	812-70-4
NFDHA	151772-58-6
PFMBA	863090-89-5
PFMPA	377-73-1
PFEESA	113507-82-7