

## SCOPE OF ACCREDITATION

**RPC**  
**921 College Hill Road**  
**Fredericton, NB**  
**E3B 6Z9**

Accredited Laboratory No. 144

(Conforms with requirements of CAN-P-1585, CAN-P-1587 , CAN-P-4E (ISO/IEC 17025:2005))

CONTACT: Ms. Geri Tees  
TEL: (506) 460-5612  
FAX: (506) 452-1395  
EMAIL: [geri.tees@rpc.ca](mailto:geri.tees@rpc.ca)

CLIENTS SERVED: All interested parties

FIELDS OF TESTING: Biological, Chemical/Physical, Forensic

FORENSICS DISCIPLINE(S): Forensic Biology / DNA

PROGRAM SPECIALTY AREA: Agriculture Inputs, Food, Animal Health and Plant Protection (PSA-AFAP) , Environmental, Forensic

ISSUED ON: 2012-04-20

VALID TO: 2013-02-01

### **ANIMAL AND PLANTS (AGRICULTURE)**

#### **Foods and Edible Products: (Human and Animal Consumption)**

##### **(Food General)**

4.M29/4.M41

ANALYSIS OF MINERALS IN  
FOOD

DX08/DX09

HRGC/HRMS ANALYSIS OF  
PCDDs, PCDFs, PCBs & PBDEs

	FROM SAMPLES OF FISH, MEAT, DAIRY AND FEED PRODUCTS
OAS-FC01	DETERMINATION OF MOISTURE IN FOODS Moisture
OAS-FC02	DETERMINATION OF ASH IN FOODS Ash
OAS-FC03	DETERMINATION OF FAT IN FOODS BY SOXTEC EXTRACTION Fat
OAS-FC04	DETERMINATION OF PROTEIN IN FOODS Protein
OAS-FC06	DETERMINATION OF FAT IN FOODS BY ACID HYDROLYSIS Fat
OAS-FC07	DETERMINATION OF FATTY ACIDS IN FOODS EPA, DHA Monounsaturates Polyunsaturates Saturates Total Fat Trans Fatty Acids
OAS-FC08	DETERMINATION OF CHOLESTEROL IN FOODS Cholesterol
OAS-FC09	ANALYSIS OF SUGARS IN FOOD MATRICES Fructose Glucose Lactose Maltose Sucrose
OAS-FC10	DETERMINATION OF TOTAL DIETARY FIBRE Total Dietary Fibre
OAS-FC11	ANALYSIS OF $\beta$ CAROTENE IN FOODS $\beta$ -carotene
OAS-FC12	ANALYSIS OF VITAMIN A(RETINOL) IN FOODS Retinol

**(Microbiology)**

FFA05	Analysis of Coliforms, Faecal Coliforms and <i>E.coli</i> in Foods Only for: Meat and Edible Meat Offal, Dairy Produce
MFHPB-18	Aerobic Colony Count in Foods (FFA04) Only for: Meat and Edible Meat Offal
MFHPB-20	<i>Salmonella</i> in Foods (FFA06)
MFHPB-21	<i>Staphylococcus aureus</i> in Foods (FFA07) Only for: Meat and Edible Meat Offal, Dairy Produce
MFHPB-30	<i>Listeria monocytogenes</i> from all Food and Environmental Samples (FFA08) Only for: Meat and Edible Meat Offal, Dairy Produce
MFLP-74	Enumeration of <i>Listeria monocytogenes</i> in Food (FFA08) Only for: Meat and Edible Meat Offal
MLG 4.03	Isolation and Identification of <i>Salmonella</i> USDA FOOD SAFETY AND INSPECTION SERVICE (FFA12)  Only for: Meat, Poultry and Egg Products

**ENVIRONMENTAL AND OCCUPATIONAL HEALTH AND SAFETY**

**Environmental**

**Air**

**(Mould - Air)**

AQS85	COLLECTION AND IDENTIFICATION OF FUNGI IN AIR Fungal Propagule ID - GENUS
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**(Petroleum Hydrocarbons - Air)**

OAS-HC01

DETERMINATION OF  
AIR-PHASE PETROLEUM  
HYDROCARBONS ON SORBENT  
TUBES

Benzene

EPH >C10-C21

Ethylbenzene

m,p-xylene

o-xylene

Toluene

VPH C6-C10 (less BTEX)

**Air (Occupational Health)**

**(Asbestos by PCM Fibre Counting - Air)**

AQS32

FIBRE COUNTING OF AIR  
SAMPLES FOR TOTAL FIBERS

Asbestos-Ms. Karla McLellan

Asbestos-Ms. Thelma Green

Asbestos-Mr. Darren Tarr

**Oil**

**(Total PCBs - Oil)**

OAS-SV03

DETERMINATION OF  
POLYCHLORINATED  
BIPHENYLS IN OIL

Total PCB (as aroclor)

**Soil/Sediment**

**(Dioxins/Furans (PCDD/PCDF) - Ash, Sludge and Soil/Sediment)**

DX08/DX06

HRGC/HRMS ANALYSIS OF  
PCDDs, PCDFs AND PCBs FROM  
ASH, SLUDGE, SOIL, AND  
SEDIMENT SAMPLES

**(Extractable Petroleum Hydrocarbons (EPH) - Soil)**

OAS-HC03

DETERMINATION OF  
PETROLEUM HYDROCARBONS  
(ATLANTIC MUST) IN SOIL

Aliphatic >C10-C12

Aliphatic >C12-C16

Aliphatic >C16-C21  
Aliphatic >C21-32  
Aromatic > C10-C12  
Aromatic > C12-C16  
Aromatic > C16-C21  
Aromatic > C21-C32  
Extractable Petroleum Hydrocarbons (>C10-C16)  
Extractable Petroleum Hydrocarbons (>C16-C21)  
Extractable Petroleum Hydrocarbons (>C21-C32)  
F2: C10-C16  
F3: C16-C34

**(Mercury - Soil)**

4.M52

TOTAL MERCURY ANALYSIS  
BY COLD VAPOUR ATOMIC  
ABSORPTION SPECTROMETRY  
Mercury

**(Metals - Soil)**

4.M19 / 4.M29

ANALYSIS OF TRACE  
ELEMENTS BY INDUCTIVELY  
COUPLED PLASMA EMISSION  
SPECTROMETRY  
Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Bismuth  
Boron  
Cadmium  
Calcium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Lithium  
Magnesium  
Manganese  
Molybdenum

4.M19, 4.M01

Nickel  
Potassium  
Rubidium  
Selenium  
Silver  
Sodium  
Strontium  
Tellurium  
Thallium  
Tin  
Uranium  
Vanadium  
Zinc

ANALYSIS OF TRACE  
ELEMENTS BY INDUCTIVELY  
COUPLED PLASMA-MASS  
SPECTROMETRY

Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Bismuth  
Boron  
Cadmium  
Calcium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Lithium  
Magnesium  
Manganese  
Molybdenum  
Nickel  
Potassium  
Rubidium  
Selenium  
Silver  
Sodium  
Strontium  
Tellurium  
Thallium  
Tin

Uranium  
Vanadium  
Zinc

**(Polycyclic Aromatic Hydrocarbons (PAH) - Soil)**

OAS-SV01

DETERMINATION OF  
POLYNUCLEAR AROMATIC  
HYDROCARBONS IN SOIL

Acenaphthene  
Acenaphthylene  
Anthracene  
Benzo (a) anthracene  
Benzo (a) pyrene  
Benzo (b) fluoranthene  
Benzo (g,h,i) perylene  
Benzo (k) fluoranthene  
Benzo(e)pyrene  
Chrysene  
Dibenzo (a,h) anthracene  
Fluoranthene  
Fluorene  
Indeno (1,2,3 - cd) pyrene  
Naphthalene  
Phenanthrene  
Pyrene

**(Volatile Petroleum Hydrocarbons (VPH) - Soil)**

OAS-HC03

DETERMINATION OF  
PETROLEUM HYDROCARBONS  
(ATLANTIC MUST) IN SOIL

Aliphatic > C8-C10  
Aliphatic C6-C8  
Aromatic > C8-C10  
Benzene  
Ethylbenzene  
F1: C6-C10  
m/p-xylene  
Methyl Tert butyl Ether (MTBE)  
o-xylene  
Toluene  
Volatile Petroleum hydrocarbons  
(C6-C10) (less BTEX)

**Tissue**

**(Emamectin Benzoate - Salmon Tissue)**

OAS-SV10

DETERMINATION OF  
EMAMECTIN BENZOATE IN  
SALMON TISSUE  
Emamectin Benzoate

**Water (Inorganic)**

**(Alkalinity - Water)**

4.M43

MEASUREMENT OF  
ALKALINITY USING THE  
AQUAKEM 250  
Alkalinity (pH 4.5)

**(Ammonia - Water)**

4.M47

MEASUREMENT OF AMMONIA  
USING THE AQUAKEM 250  
Ammonia

**(Biochemical Oxygen Demand (BOD) - Water)**

4.M07

MEASURING BIOCHEMICAL  
OXYGEN DEMAND  
BOD (5 day)

**(Chemical Oxygen Demand (COD) - Water)**

4.M40

MEASUREMENT OF CHEMICAL  
OXYGEN DEMAND BY CLOSED  
REFLUX COLORIMETRIC  
METHOD  
COD

**(Chloride - Water)**

4.M44

MEASUREMENT OF CHLORIDE  
USING THE AQUAKEM 250  
Chloride

**(Colour - Water)**

4.M51

MEASUREMENT OF COLOUR BY  
SPECTROPHOTOMETER

**(Conductivity - Water)**

4.M04

MEASUREMENT OF  
CONDUCTIVITY OF AQUEOUS  
SAMPLES  
Conductivity (25°C)

**(Dissolved and Extractable Metals - Water)**

4.M01

ANALYSIS OF TRACE  
ELEMENTS BY INDUCTIVELY  
COUPLED PLASMA-MASS  
SPECTROMETRY

Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Bismuth  
Boron  
Cadmium  
Calcium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Lithium  
Magnesium  
Manganese  
Molybdenum  
Nickel  
Potassium  
Rubidium  
Selenium  
Silver  
Sodium  
Strontium  
Tellurium  
Thallium  
Tin  
Uranium  
Vanadium  
Zinc

4.M29

ANALYSIS OF TRACE  
ELEMENTS BY INDUCTIVELY  
COUPLED PLASMA EMISSION  
SPECTROMETRY

Aluminum  
Antimony  
Arsenic  
Barium  
Beryllium  
Bismuth  
Boron  
Cadmium  
Calcium  
Chromium  
Cobalt  
Copper  
Iron  
Lead  
Lithium  
Magnesium  
Manganese  
Molybdenum  
Nickel  
Potassium  
Rubidium  
Selenium  
Silicon  
Sodium  
Strontium  
Sulphur  
Tellurium  
Thallium  
Tin  
Titanium  
Vanadium  
Zinc

**(Fluoride - Water)**

4.M30

MEASUREMENT OF FLUORIDE  
BY COLORIMETRIC  
DETERMINATION  
Fluoride

**(Major Ions - Water)**

4.M39

ANALYSIS OF ANIONS BY ION  
CHROMATOGRAPHY

Bromide  
Chloride  
Fluoride  
Nitrate  
Nitrite  
Sulfate

**(Mercury - Water)**

4.M52

TOTAL MERCURY ANALYSIS  
BY COLD VAPOUR ATOMIC  
ABSORPTION SPECTROMETRY  
Mercury

**(Nitrate plus Nitrite - Water)**

4.M48

MEASUREMENT OF NITRATE +  
NITRITE USING THE AQUAKEM  
250  
Nitrate plus Nitrite

**(Nitrite - Water)**

4.M49

MEASUREMENT OF NITRITE  
USING THE AQUAKEM 250  
Nitrite

**(Organic Carbon - Water)**

4.M38

MEASUREMENT OF TOTAL  
ORGANIC CARBON USING THE  
DOHRMANN PHOENIX 8000  
TOC ANALYZER  
DOC  
Total Organic Carbon (TOC)

**(pH - Water)**

4.M03

MEASUREMENT OF pH OF  
AQUEOUS SAMPLES  
pH

**(Phosphate - Water)**

4.M50

MEASUREMENT OF  
PHOSPHATE USING THE  
AQUAKEM 250  
Phosphate

**(Silica (Reactive) - Water)**

4.M46

MEASUREMENT OF SILICA  
USING THE AQUAKEM 250  
Reactive Silica

**(Sulfate - Water)**

4.M45

MEASUREMENT OF SULFATE  
USING THE AQUAKEM 250  
Sulfate

**(Total Kjeldahl Nitrogen (TKN) - Water)**

4.M16

MEASUREMENT OF TOTAL  
KJELDAHL NITROGEN  
Total Kjeldahl Nitrogen

**(Total Phenols - (Water)**

4.M54

ANALYSIS OF TOTAL PHENOLS  
IN AQUEOUS SAMPLES

**(Total Phosphorus - Water)**

4.M17

MEASUREMENT OF TOTAL  
PHOSPHORUS IN AQUEOUS  
SAMPLES  
Total Phosphorus

**(Total Suspended Solids (TSS) - Water)**

4.M05

DETERMINATION OF TOTAL  
SUSPENDED SOLIDS IN  
AQUEOUS SAMPLES  
Total Suspended Solids

**(Turbidity - Water)**

4.M06

MEASUREMENT OF TURBIDITY  
BY NEPHELOMETRY  
Turbidity

**Water (Microbiology)**

**(Coliforms - Water)**

FFA01

ANALYSIS OF COLIFORMS IN  
WATER  
Escherichia coli (E. coli)  
Total Coliforms

**(Coliforms - Water)**

FFA10

DETERMINATION OF  
COLIFORMS AND E. COLI IN  
WATER BY THE IDEXX  
COLILERT-18 METHOD  
Escherichia coli (E. coli)  
Total Coliforms

**(Fecal Coliforms - Water)**

FFA01

ANALYSIS OF COLIFORMS IN  
WATER

**(Heterotrophic Plate Count - Water)**

FFA11

PERFORMING HETEROTROPHIC  
PLATE COUNT IN WATER  
Heterotrophic Plate Count (HPC)

**Water (Organic)**

**(BAP & Pentachlorophenol - Water)**

OAS-SV09

DETERMINATION OF BENZO (a)  
PYRENE AND  
PENTACHLOROPHENOL IN  
WATER  
Benzo (a) pyrene  
Pentachlorophenol

**(Dioxins/Furans (PCDD/PCDF) - Water)**

DX08/DX10

HRGC/HRMS ANALYSIS OF  
PCDDs AND PCDFs FROM  
WATER SAMPLES

**(Dissolved Methane/Ethane - Water)**

AQS90

DETERMINATION OF  
DISSOLVED METHANE AND/OR  
ETHANE IN WATER BY GC/FID

**(Extractable Petroleum Hydrocarbons (EPH) - Water)**

OAS-HC04

DETERMINATION OF  
PETROLEUM HYDROCARBONS  
(ATLANTIC MUST) IN WATER  
SAMPLES  
Aliphatic >C10-C12  
Aliphatic >C12-C16  
Aliphatic >C16-C21  
Aliphatic >C21-C32  
Aromatic >C10-C12  
Aromatic >C12-C16  
Aromatic >C16-C21  
Aromatic >C21-C32  
Extractable Petroleum Hydrocarbons  
(>C10-C16)  
Extractable Petroleum Hydrocarbons  
(>C16-C21)  
Extractable Petroleum Hydrocarbons  
(>C21-C32)

**(Haloacetic Acids - Water)**

OAS-SV06

DETERMINATION OF  
HALOACETIC ACIDS IN  
DRINKING WATER  
Bromoacetic acid  
Bromochloroacetic acid  
Chloroacetic acid  
Dibromoacetic acid  
Dichloroacetic acid  
Trichloroacetic acid

**(N-Nitrosodimethylamine (NDMA) - Water)**

NDMA01

ANALYSIS OF  
N-NITROSODIMETHYLAMINE  
(NDMA) IN WATER BY  
GC/HRMS  
N-Nitrosodimethylamine (NDMA)

**(OC Pesticides/PCB - Water)**

OAS-SV05 / OAS-SV04

DETERMINATION OF  
ORGANOCHLORINE  
PESTICIDES IN WATER /  
DETERMINATION OF  
POLYCHLORINATED  
BIPHENYLS IN WATER  
A -BHC  
Endosulfan I  
Endosulfan II  
Endrin  
Heptachlor Epoxide  
Lindane (gamme-BHC)  
Mirex  
o,p' - DDT  
p,p' - DDT  
p,p' Methoxychlor  
Total PCB (as aroclor)

**(Polycyclic Aromatic Hydrocarbons (PAH) - Water)**

OAS-SV02

DETERMINATION OF  
POLYNUCLEAR AROMATIC  
HYDROCARBONS IN WATER  
Acenaphthene  
Acenaphthylene  
Anthracene  
Benzo (a) pyrene  
Benzo (a)-anthracene  
Benzo (b) fluoranthene  
Benzo (g,h,i) perylene  
Benzo (k) fluoranthene  
Benzo(e)pyrene  
Chrysene  
Dibenzo (a,h) anthracene  
Fluoranthene  
Fluorene  
Indeno (1,2,3 - cd) pyrene  
Naphthalene  
Phenanthrene  
Pyrene

**(Volatile Organic Compounds (VOC) - Water)**

OAS-HC02

DETERMINATION OF VOLATILE  
ORGANIC COMPOUNDS IN  
WATER

1,1,1-Trichloroethane  
1,1,2,2-Tetrachloroethane  
1,1,2-Trichloroethane  
1,1-Dichloroethane  
1,1-dichloroethylene  
1,2-dichlorobenzene  
1,2-dichloroethane  
1,2-Dichloroethylene (E)  
1,2-Dichloroethylene (Z)  
1,2-Dichloropropane  
1,3-Dichlorobenzene  
1,3-Dichloropropylene (E)  
1,3-Dichloropropylene (Z)  
1,4-dichlorobenzene  
Benzene  
Bromochloromethane  
Bromodichloromethane  
Bromoform  
Bromomethane  
Carbon Tetrachloride  
Chlorobenzene  
Chlorodibromomethane  
Chloroethane  
Chloroform  
Chloromethane  
Dichloromethane  
Ethylbenzene  
Ethylene Dibromide  
m/p-xylene  
o-xylene  
Styrene  
Tetrachloroethylene  
Toluene  
Trichloroethylene  
Trichlorofluoromethane  
Vinyl Chloride

**(Volatile Petroleum Hydrocarbons (VPH) - Water)**

OAS-HC04

DETERMINATION OF  
PETROLEUM HYDROCARBONS  
(ATLANTIC MUST) IN WATER  
SAMPLES

Aliphatic > C8-C10  
Aliphatic C6-C8  
Aromatic > C8-C10  
Benzene  
Ethylbenzene  
m/p-xylene  
Methyl Tert butyl Ether (MTBE)  
o-xylene  
Toluene  
Volatile Petroleum hydrocarbons  
(C6-C10) (less BTEX)

**Occupational Health and Safety:**

**Asbestos**

**(Asbestos Identification - Bulk Samples)**

AQS16

IDENTIFICATION OF ASBESTOS  
IN BULK SAMPLES  
Asbestos

**MEDICAL**

**(Compressed Breathing Air Analysis: CAN/CSA Z180.1-00, CAN/CSA Z275.2-04 )  
(Medical Gas Analysis: CAN/CSA Z7396.1-06 & CAN/CSA Z7396.1-09)**

AQS02

Measurement of Dewpoint in  
Breathing Air and Medical Gases

AQS03

Measuring Nitrogen Dioxide in  
Breathing Air Samples

AQS04

Measurement of Oil, Particulate, and  
Condensates in Breathing Air and  
Medical Gases

AQS80

Measuring Odour in Compressed  
Breathing Air and Medical Gas  
Samples

AQS81

Determination of Nitrous Oxide and  
Halogenated Hydrocarbons in  
Compressed Breathing Air and  
Medical Gases

AQS82

Determination of Nitrogen, Oxygen,  
Methane, Carbon Monoxide, Carbon  
Dioxide, Nitrous Oxide and  
Non-methane Hydrocarbons (as

**(Medical Gas Piping Systems)**

***PLEASE NOTE***

***The Medical Gas Piping System inspection portion of RPC's scope of accreditation has recently been transferred to SCC's Inspection Body program. A scope listing may be found at:***

**[http://www.scc.ca/en/programs/inspec\\_bodies/accredited\\_clients.shtml](http://www.scc.ca/en/programs/inspec_bodies/accredited_clients.shtml)**

**FORENSICS**

**Forensic Biology / DNA**

**Techniques for which laboratory is accredited:**

- a. Forensic Testing of Human Samples by:
  - 1. FFA-FBL07 Human DNA Genotyping
  - 2. FFA-FBL08 Human Relationship Probability Calculations
  - 3. FFA-FBL09 Presumptive Testing of Semen
  - 4. FFA-FBL09 Presumptive Testing of Human Blood
- b. Forensic Testing Of Wildlife Samples by:
  - 1. FFA-FBL03 Mt-DNA Species Identification
  - 2. FFA-FBL04 Genotyping (DNA) of Moose
  - 3. FFA-FBL05 Gender Typing of Mammals
  - 4. FFA-FBL06 Genotyping (DNA) of Deer

The following techniques are incorporated: sample handling, sample preparation, DNA purification, DNA extraction, PCR amplification, gel/capillary electrophoresis, sequencing (mtDNA), genotyping (STRs), interpretation (mtDNA and STRs) and reporting.

**Notes:**

***CAN-P-4E (ISO/IEC 17025):*** General Requirements for the Competence of Testing and Calibration Laboratories (ISO/IEC 17025-2005)

***CAN-P-1587:*** Requirements for the Accreditation of Agriculture Inputs, Food, Animal Health and Plant Protection Testing Laboratories

***CAN-P-1585:*** Guidelines for Accreditation of Environmental Testing Laboratories

***MFHPB:*** Health Protection Branch Method

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S. Cross, Director, Conformity Assessment

Date: 2012-04-20

Number of Scope Listings: 77

Number of Forensic Techniques: 8

SCC 1003-15/213

Partner File #0

Partner: None