

# Accreditation Certificate

## Environmental Laboratory Services Ltd

Acorn Business Campus, Mahon Industrial Park, Blackrock, Cork

### Testing Laboratory

Registration number: 111T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard **ISO/IEC 17025:2005 2<sup>nd</sup> Edition** “*General Requirements for the Competence of Testing and Calibration Laboratories*”  
***(This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)***

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Date of award of accreditation: **21:01:2003**

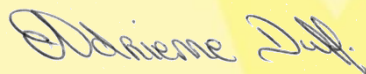
Date of last renewal of accreditation: **20:09:2017**

Expiry date of this certificate of accreditation: **20:09:2022**

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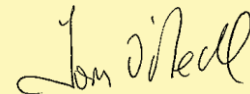
This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager:



Dr Adrienne Duff

Chairperson:



Mr Tom O'Neill

Issued on 20 September 2017

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

# Schedule of Accreditation



(Annex to Accreditation Certificate)

Permanent Laboratory:  
Category A

## ENVIRONMENTAL LABORATORY SERVICES LTD

### Chemical and Biological Testing Laboratory

**Initial Registration Date :** 9-December-1999  
**Chemical Testing Lab**  
**Initial Registration Date:**  
**Biological Testing Lab** 24-February-2015  
**Postal Address:** Acorn Business Campus  
*(Address of other locations as they apply)* Mahon Industrial Park  
Blackrock  
Cork  
**Telephone:** +353 (0) 214536141  
**Fax:** +353 (0) 214536149  
**E-mail:** maire@elsltd.com  
**Contact Name:** Ms Máire Bradley  
**Facilities:** Public testing service

# Schedule of Accreditation



Permanent Laboratory:  
Category A

THE IRISH NATIONAL ACCREDITATION BOARD (INAB) is the Irish body for the accreditation of organisations including laboratories.

Laboratory accreditation is available to testing and calibration facilities operated by manufacturing organisations, government departments, educational institutions and commercial testing/calibration services. Indeed, any organisation involved in testing, measurement or calibration in any area of technology can seek accreditation for the work it is undertaking.

Each accredited laboratory has been assessed by skilled specialist assessors and found to meet criteria which are in compliance with ISO/IEC 17025 or ISO 15189 (medical laboratories). Frequent audits, together with periodic inter-laboratory test programmes, ensure that these standards of operation are maintained.

## Testing and Calibration Categories:

- Category A:** Permanent laboratory calibration and testing where the laboratory is erected on a fixed location for a period expected to be greater than three years.
- Category B:** Site calibration and testing that is performed by staff sent out on site by a permanent laboratory that is accredited by the Irish National Accreditation Board.
- Category C:** Site calibration and testing that is performed in a site/mobile laboratory or by staff sent out by such a laboratory, the operation of which is the responsibility of a permanent laboratory accredited by the Irish National Accreditation Board.
- Category D:** Site calibration and testing that is performed on site by individuals and organisations that do not have a permanent calibration/testing laboratory. Testing may be performed using
- (a) portable test equipment
  - (b) a site laboratory
  - (c) a mobile laboratory or
  - (d) equipment from a mobile or site laboratory

## Standard Specification or Test Procedure Used:

The standard specification or test procedure that is accredited is the issue that is current on the date of the most recent visit, unless otherwise stated.

## Glossary of Terms

### Facilities:

- Public calibration/testing service:** Commercial operations which actively seek work from others.
- Conditionally available for public calibration/testing:** Established for another primary purpose but, more commonly than not, is available for outside work.
- Normally not available for public calibration/testing:** Unavailable for public calibration/testing more often than not.

Laboratory users wishing to obtain assurance that calibration or test results are reliable and carried out to the Irish National Accreditation Board criteria should insist on receiving an accredited calibration certificate or test report. Users should contact the laboratory directly to ensure that this scope of accreditation is current. INAB will, on request, verify the status and scope.

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented in-house method based on:
.01 Waters for potable and domestic purposes	COD 8-1500 mg O <sub>2</sub> /l	APHA 5220D (2012) closed Reflux Colorimetric. EW094
Waste water	COD 8-1500 mg O <sub>2</sub> /l	APHA 5220D (2012) closed
.04 - Untreated	COD 8 - 15000 mg O <sub>2</sub> /l (untreated)	Reflux Colorimetric. EW184
.08 - Treated		
.05 - Trade	Conductivity 25-6000 µS/cm pH 4-10 pH units	APHA method 2510B (2012) Titralab combined conductivity pH method EW153M-1
.99 Other waters <i>Ground water</i> <i>Surface water</i>	Orthophosphate 0.009-25 mg/IP Ortho Phosphate (MRP) by calculation 0.021-57.28 mg/l P <sub>2</sub> O <sub>5</sub> 0.028-76.65 mg/l PO <sub>4</sub>	USEPA 365.1 (1983) Phosphate by Autoanalyser Spectrophotometry. EW154M-1
	Ammonia /Ammonium 0.007 - 7mg/l N 0.007-100 mg/l N (untreated only) Ammonia as NH <sub>3</sub> by calculation 0.009-8.5 mg/l NH <sub>3</sub> 0.009-121 mg/l NH <sub>3</sub> (untreated only) Ammonia as NH <sub>4</sub> by calculation 0.009-9.02 mg/l NH <sub>4</sub> 0.009-128 mg/l NH <sub>4</sub> (untreated only)	APHA 4500NH3G (2012) Ammonia by Autoanalyser Spectrophotometry EW154M-1

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
	Chloride            2.5-250 mg/l Cl 2.5-5000 mg/l Cl (untreated only)	HMSO (1981) Chloride by Autoanalyser Spectrophotometry. EW154M-1

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented in-house method based on:
.01 Waters for potable and domestic purposes	Nitrate 0.12-50 mg/l N 0.12mg/l -250 mg/l (untreated only)	USEPA, 353.1 (1983) Nitrate by Autoanalyser Spectrophotometry.
Waste water	Nitrate by calculation	EW154M-1
.04 - Untreated	0.53-221 mg/l NO <sub>3</sub>	
.08 -Treated	0.53-978 mg/l NO <sub>3</sub> (untreated only)	
.05 - Trade		
.99 Other waters Ground water Surface water	Nitrite 0.013-1 mg/l N 0.013 mg/l - 50 mg/l N (untreated only) Nitrite by calculation 0.043-3.29 mg/l NO <sub>2</sub> 0.043-164 mg/l NO <sub>2</sub> (untreated only)	USEPA 353.1 (1983) Nitrite by Autoanalyser Spectrophotometry. EW154M-1
	Sulphate 1 to 250 mg/l SO <sub>4</sub> 1-5000 mg/l SO <sub>4</sub> (untreated only)	HMSO (1981) Sulphate by Autoanalyser Spectrometry. EW154M-1
	Total Kjeldahl Nitrogen 1.0 to 49 mg/L	Nitrogen by calculation EW010
	Total Dissolved Solids 15-1000 mg/l	APHA 2540C (2012) Total Dissolved Solids at 180C. EW046

# Scope of Accreditation



## Environmental Laboratory Services Ltd

Permanent Laboratory:

### Chemical Testing Laboratory

Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented in-house methods
.01 Water for potable and domestic purposes	Total Hardness 3-330 mg/l CaCO <sub>3</sub>	calculation based on APHA 2340B (2012) Determination of Total Hardness. EW099
.99 Other waters  <i>Ground water</i> <i>Surface water</i>	Total Oxidised Nitrogen 0.2 to 51 mg/l N	USEPA 353.1 (1983) Total Oxidised Nitrogen by Calculation. EW154M-1
	Colour 2.5 to 50 mg/l Pt/Co	APHA 2120C (2012) Colour by Autoanalyser Spectrophotometry. EW154M-1
	Sulphate 1 to 250 mg/l SO <sub>4</sub>	HMSO (1981) Sulphate by Autoanalyser Spectrometry. EW154M-1
	Bromate 1 to 50 µg/l BrO <sub>3</sub>	USEPA 326.0 (2002) Ion Chromatography. EW137
	Turbidity 0.11-150 NTU	ISO 7027:1999 EW136
	UV Absorbance/UV Transmittance UVA - 0.014cm <sup>-1</sup> - 1.0cm <sup>-1</sup> UVT - 10%-96%	EW182 - USEPA 415.3, Standard Method 5910B.

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented in-house method based on: USEPA Method 415.3 (2003) Total Organic Carbon by Combustion Oxidation. EW123
.01 Water for potable and domestic purposes	TOC 0.25 to 100 mg/L DOC 0.25 - 100 mg/l	
<i>Waste water</i>		
.04 - Untreated	Suspended Solids 5 to 1000 mg/l	APHA 2540D(2012) Suspended solids by Gravimetric analysis EW013
.08 - Treated		
.05 - Trade		
.99 Other waters	Dissolved Oxygen 1 to 10 mg/l	APHA 4500G(2012) Dissolved oxygen measurement EW043
<i>Ground water</i>		
<i>Surface water</i>	Fluoride 0.1 to 2 mg/L	USEPA Method 300.1 (1997) Fluoride by IC. EW137
	BOD 1 to 1300 mg/L cBOD for Treated effluent only (Carbonaceous) 1 to 1300 mg/L	APHA 5210B (2012) EN1899-1:1998 Biochemical Oxygen Demand EW001
	BOD 1 - 2480 mg O2/l cBOD for Treated effluent only (Carbonaceous) 1 - 2480 mg O2/l	APHA 5210B (2012) EN1899-1:1998 Biochemical Oxygen Demand EW185 (robotic)
	Alkalinity 10 to 1000 mg/L CaCO3	APHA 2320 (2012)



# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766</b> <b>Waters</b>		Total Alkalinity by Titralab Measurement. EW153
<b>.01</b> Water for potable and domestic purposes	Total Nitrogen    1 to 100 mg/L N 1-1000 mg/l N (Untreated Only)	APHA 4500NB (2012) by TN Analyser. EW140
<i>Waste water</i>		
<b>.04</b> - Untreated		EW004 - EPA Method 1664 (HEM)
<b>.08</b> - Treated	Oil, Fats and Grease 4 - 300 mg/l	
<b>.05</b> - Trade		
<b>.99</b> Other waters		
<i>Ground water</i>	Extractable Petroleum Hydrocarbon (C8 to C40)	EO063 (ISO 9377-2:2000)
<i>Surface water</i>	0.01-4mg/l 0.2-4mg/l (all waste waters)	



# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A



INAB Classification number (P9)	Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
.01	Water for potable and domestic purposes	Ammonia 0.005 - 0.5mg/l N Ammonia by calculation 0.006 - 0.608mg/l NH3	Documented in-house method by Autoanalyser Spectrophotometry based on:
.99	Other waters <i>Ground Water</i> <i>Surface Water</i>	0.006 - 0.644 mg/l NH4  Cyanides-Free 1.0-100ug/l CN Colour 2.0-50PtCo (Hazen)  TON 0.15 - 15mg/l N Nitrate by Calculation 0.15 - 15mg/l N 0.7 - 66mg/l NO3  Nitrite 0.005 - 0.5mg/lN Nitrite by calculation 0.016 - 1.6 mg/l NO2  Phosphate 0.005 - 0.5mg/l P (Ortho Phosphate MRP) Phosphate by calculation 0.015 - 1.5 mg/l PO4 0.011 - 1.15 mg/l P2O5  Chloride 1-500 mg/l  Sulphate 1-500 mg/l Fluoride 0.1-2mg/l	APHA 4500NH3G (2012). EW175  USEPA-Method- 335.4 EW175 APHA 2120C (2012) EW175  USEPA 353.1.Rev 1 EW175  APHA 4500-NO2 (2012) EW175  USEPA 365.1 EW175  APHA4500-CL G (2012) EW175  APHA 4500-SO4 E (2012) EW175 EPA340.3 EW175

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested		Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766</b>	<b>Waters</b>		
.01	Water for potable and domestic purposes	Total Metals Aluminium 100.0-4500 µg/l Antimony 0.3-90 µg/l Arsenic 1-180 µg/l Barium 3-900 µg/l Beryllium 3-900 µg/l Boron 0.5-18 µg/l Cadmium 0.3-90 µg/l Calcium 3-900 mg/l Chromium 3-900 µg/l Cobalt 3-900 µg/l Copper 0.003-27 mg/l Iron 60-4500 µg/l Lead 0.9-270 µg/l Magnesium 1-270 mg/l Manganese 3-900 µg/l Mercury 0.06-18 µg/l Molybdenum 3-900 µg/l Nickel 1.5-450 µg/l Potassium 1-180 mg/l Selenium 3-180 µg/l Sodium 3-450 mg/l Strontium 4-900 µg/l Tellurium 3-900 µg/l Thallium 3-900 µg/l Titanium 3-900 µg/l Uranium 3-900 µg/l Vanadium 3-900 µg/l Zinc 10-900 µg/l Zinc 10 - 15000 µg/l (untreated-only) Tin 3-900 µg/l	Documented in-house method EW187 based on:  USEPA Method 200.8 USEPA 3051a  Microwave Digestion ICP-MS
.04	Wastewater Untreated		
.08	Treated		
.05	Trade		
.99	Other waters <i>Ground water</i> <i>Surface water</i>		

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766</b> <b>.01</b> <b>.99</b> <b>Waters</b> Waters for potable and domestic purposes Other waters <i>Ground water</i> <i>Surface water</i>	Aluminium 5.0 to 500 µg/l Antimony 0.1 to 10 µg/l Arsenic 0.2 to 20 µg/l Boron 0.02 to 2 mg/l Cadmium 0.1 to 10 µg/l Chromium 1.0 to 100 µg/l Copper 3 to 6000 µg/l Iron 20 to 600 µg/l Lead 0.3 to 1500 µg/l Manganese 1.0 to 200 µg/l Mercury 0.02 to 2 µg/l Nickel 0.5 to 100 µg/l Selenium 0.2 to 20 µg/l Sodium 0.5 to 50 mg/l Barium 1.0 to 100 µg/l Calcium 1.0 to 100mg/l Cobalt 1.0 to 100 µg/l Magnesium 0.3 to 20 mg/l Molybdenum 1.0 to 100 µg/l Potassium 0.2 to 20 mg/l Strontium 1.0 to 100 µg/l Tin 1.0 to 100 µg/l Vanadium 1.0 to 100 µg/l Zinc 1.0 to 500 µg/l	Documented In-house methods based on:  USEPA Method 200.8 (1999) Metals by ICP-MS. EW188

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>	VOC's	Documented in-house method based on:  USEPA Method 524.2 (1992) Determination of volatile organic carbons in water by purge and trap GC/MS. EO 025
.01 Waters for potable and domestic purposes	Benzene 0.1 to 35 µg/l 1,2-Dichloroethane 0.1 to 35 µg/l Tetrachloroethene 0.1 to 35 µg/l Trichloroethene 0.1 to 35 µg/l Tetra & Tri SUM (Calc) Sum of Tetrachloroethene & Trichloroethene 0.1-70 µg/l	
Wasterwater		
.04 Untreated	Chloroform 1.0 to 150 µg/l	
.08 Treated	Bromoform 1.0 to 35 µg/l	
.05 Trade	Dibromochloromethane 1.0 to 35 µg/l	
.99 Other waters	Bromodichloromethane 2.0 to 35 µg/l	
Ground water	Total THM's (Calc) 5 - 255 µg/l	
Surface water	Bromomethane 0.5 to 35 µg/l	
Waste water	Ethyl Ether/Diethyl Ether 0.5 to 35 µg/l	
	1,1-Dichloroethene 0.5 to 35 µg/l	
	Iodomethane/Methyl Iodide 0.5-35 µg/l	
	Carbon Disulphide 0.5 to 35 µg/l	
	Dichloromethane (Methylene Chloride) 5.0 to 35 µg/l	
	2-Propenenitrile (Acrylonitrile) 2.0 to 35 µg/l	
	ChlormethylCyanide (Chloroacetonitrile) 0.5 to 35 µg/l	
	Hexachlorobutadiene 0.5 to 35 µg/l	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9)	Type of test/properties measured	Standard specifications
Materials/products tested	Range of measurement	Equipment/techniques used
<b>766 Waters</b>	VOC's	Documented in-house method based on:
.01 Waters for potable and domestic purposes	Trans-1,2-Dichloroethene 0.5 to 35 µg/l	USEPA Method 524.2 (1992) Determination of volatile organic carbons in water by purge and trap GC/MS. EO 025
Wastewater	Methyl t-butyl ether (MtBE) 0.5 to 35 µg/l	
.04 Untreated	1,1-Dichloroethane 0.5 to 35 µg/l	
.08 Treated	Cis-1,2-Dichloroethene 0.5 to 35 µg/l	
.05 Trade	Methyl Acrylate 5.0 to 35 µg/l	
.99 Other waters	Bromochloromethane 0.5 to 35 µg/l	
<i>Ground water</i>		
<i>Surface water</i>		

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented In-house method based on:
.01 Waters for potable and domestic purposes	Tetrahydrofuran 5.0-35 µg/l 1,1,1- Trichloroethane 0.5-35µg/l	USEPA Method 524.2 (1992) Determination of volatile organic carbons in water by
Wastewater	1-Chlorobutane 0.5-35 µg/l	purge and trap GC/MS. EO
.04 Untreated	Carbon Tetrachloride 0.5-35 µg/l	025.
.08 Treated	1,1- Dichloropropene 0.5-35 µg/l	
.05 Trade	1,2- Dichloropropane 0.5.35 µg/l Dibromomethane 0.5-35 µg/l	
.99 Other waters	Methyl Methacrylate 0.5-35 µg/l	
Ground Water	1,3- Dichloropropene, cis 2.0-35 µg/l	
Surface Water	(MIBK)4 Methyl 2 Pentanone 2.0-35 µg/l Toluene 0.5-35 µg/l 1,3- Dichloropropene, trans 2.0-35 µg/l Ethyl Methacrylate 2.0-35 µg/l 1,1,2-Trichloroethane 0.5-35 µg/l 1,3-Dichloropropane 0.5-35 µg/l 2-Hexanone 1.0-35 µg/l 1,2-Dibromoethane 0.5-35 µg/l Chlorobenzene 0.5-35 µg/l 1,1,1,2- Tetrachloroethane 2.0-35 µg/l Ethyl Benzene 0.5-35 µg/l m & p Xylene 0.5-35 µg/l O Xylene 0.5-35 µg/l	



# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>		Documented In-house method based on: USEPA Method 524.2 (1992) Determination of volatile organic carbons in water by purge and trap GC/MS. EO 025.
.01 Waters for potable and domestic purposes	Stryrene 2.0-35 µg/l	
Wastewater	Isopropyl Benzene 0.5-35 µg/l	
.04 Untreated	Bromobenzene 0.5-35 µg/l	
.08 Treated	1,1,2,2- Tetrachloroethane	
.05 Trade	0.5-35 µg/l	
	1,2,3-Trichloropropane 2.0-35 µg/l	
.99 Other waters	Propyl Benzene 0.5-35 µg/l	
	2-Chlorotoluene 0.5-35 µg/l	
Ground Water	4-Chlorotoluene 0.5-35 µg/l	
Surface Water	1,3,5-Trimethylbenzene 0.5-35 µg/l	
	Tert Butyl Benzene 0.5-35 µg/l	
	1,2,4-Trimethylbenzene 0.5-35 µg/l	
	Sec Butyl Benzene 0.5-35 µg/l	
	1,3-Dichlorobenzene 0.5-35 µg/l	
	p- Isopropyltoluene 0.5-35 µg/l	
	1,4- Dichlorobenzene 0.5-35 µg/l	
	1,2-Dichlorobenzene 0.5-35 µg/l	
	n- Butyl Benzene 0.5-35 µg/l	
	Hexachloroethane 5.0-35 µg/l	
	1,2- Dibromo 3 Chloropropane 2.0-35 µg/l	
	1,2,4-Trichlorobenzene 0.5-35 µg/l	
	1,2,3-Trichlorobenzene 0.5-35 µg/l	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested		Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766</b> .01	<b>Waters</b> Waters for potable and domestic purposes	Acid Herbicides 0.005 to 0.5 µg/l	Documented in-house method EO162 based on:
.99	Other waters <i>Ground Waters</i> <i>Surface Waters</i>	236-Trichlorobenzoic 245-T 24-D 24-DB Bentazone Bromacil Bromoxynil Dicamba Dichloroprop (24DP) Fluroxypyr (In Potable Ground and Surface Waters only) Ioxynil MCPA MCPB Mecoprop MCPP Pentachlorophenol (PCP) Picloram Quinmerac Triclopyr	USEPA 538-1-2009 USEPA 535-2005 LCMSMS
<b>766</b> .01	<b>Waters</b> Waters for potable and domestic purposes	Acid Herbicides 0.005 to 0.5 µg/l Clopyraid	Documented in-house methods based on:
.99	Other waters <i>Ground Waters</i> <i>Surface Waters</i>		USEPA Method 538-1-2009 USEPA Method 535-2005 LCMSMS EO162

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>	Pesticides Suite A	Documented in-house method EO165 based on: USEPA 538-1-2009 USEPA 536 -2007 LCMSMS
.01 Waters for potable and domestic purposes	0.005 to 0.2 µg/l	
.99 Other waters <i>Ground Waters</i> <i>Surface Waters</i>	Organo Phosphorus Pesticides: Azinphos-methyl Azinphos-ethyl Chlorfenvinphos Demeton-S-Methyl Diazinon Dichlorvos Dimethoate Malathion (Potable and surface water only) Mevinphos Phosalone Pirimiphos-methyl Propetamphos Triazophos  Triazines: Ametryn Atrazine (Potable and surface water only) Cyanazine	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b> .01 Waters for potable and domestic purposes .99 Other waters <i>Ground Waters</i> <i>Surface Waters</i>	Prometryn Propazine Propyzamide Simazine Terbutryn Trietazine  Urons: Chlorotoluron Diuron Isoproturon Linuron  Other: Carbetamide Chloridazon (Pyrazon) Chlorpropham Epoxiconazole Metaldehyde Propiconazole Diflufenican Metazachlor	Documented in-house method EO165 based on: USEPA 538-1-2009 USEPA 536 -2007 LCMSMS

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>	Glyphosate	Documented in-house method EO164 based on: USEPA 538-1-2009 USEPA 536 -2007 LCMSMS
.01 Waters for potable and domestic purposes	0.05 to 2 µg/l for wastewater 0.005 to 0.5ug/l for all other waters	
Waste Waters		
.05 Treated Sewage		
.08 Effluent	AMPA 0.005 to 0.5ug/l for all other waters	
.99 Other waters <i>Ground Waters</i> <i>Surface Waters</i>	(Not accredited for Treated Sewage Effluent)	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>766 Waters</b>	<b>PAH's</b>	Documented in-house Method EO181 - Determination of Pesticides/PAH's by SPE GC-MS/MS detection
.01 Water for potable and domestic purposes	Drinking Water PAH sum (calc) Acenaphthene 0.003 to 0.16 µg/l Acenaphthylene 0.003 to 0.16 µg/l	
.99 Other waters	Anthracene 0.010 to 0.16 µg/l	
Ground water	Benzo (a) Anthracene 0.005 to 0.16 µg/l	
Surface water	Benzo (a) Pyrene 0.003 to 0.162 µg/l Benzo (b) Fluoranthene 0.010 to 0.16 µg/l Benzo (ghi) Perylene 0.010 to 0.16 µg/l Benzo (k) Fluoranthene 0.010 to 0.16 µg/l Chrysene 0.003 to 0.2 µg/l	
	Dibenzo (ah) Anthracene 0.005 to 0.16 µg/l Fluoranthene 0.010 to 0.16 µg/l Fluorene 0.010 to 0.16 µg/l Indeno (123-cd) Pyrene 0.005 to 0.16 µg/l Naphthalene 0.010 to 0.16 µg/l	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
	Phenanthrene 0.010 to 0.16 µg/l Pyrene 0.010 to 0.16 µg/l <b>Pesticides:-</b> Aldrin 0.003 to 0.16 µg/l BHC Alpha isomer 0.003 to 0.16 µg/l BHC Beta isomer 0.003 to 0.16 µg/l BHC Delta isomer 0.003 to 0.16 µg/l Cypermethrin 0.003 to 0.16 µg/l Dichlobenil 0.003 to 0.16 µg/l Dieldrin 0.005 to 0.16 µg/l Endosulphan Alpha isomer 0.005 to 0.16 µg/l Endosulphan Beta isomer 0.003 to 0.16µg/l Endosulphan Sulphate 0.003 to 0.16 µ/l Endrin Aldehyde 0.003 to 0.16 µg/l Endrin 0.003 to 0.16 µg/l Heptachlor 0.003 to 0.16 µg/l Heptachlor Epoxide 0.003 to 0.16 µg/l	

# Scope of Accreditation



## Environmental Laboratory Services Ltd Chemical Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
	Lindane 0.003 to 0.16 µg/l Parathion-Ethyl (Parathion) 0.003 to 0.16 µg/l Pendimethalin 0.003 to 0.16 µg/l P,P' DDE 0.010 to 0.16 µg/l P,P'-DDD 0.003 to 0.16 µg/l P,P'-DDT 0.003 to 0.16 µg/l	
756 <b>Drugs &amp; Pharmaceuticals</b>  .01 <b>Drugs</b>	Elemental Impurities in Drug Products Arsenic                    0.5-72 µg/g Cadmium                    0.2-60 µg/g Cobalt                        0.2-60 µg/g Lead                            0.02-60 µg/g Mercury                    0.02-7.2 µg/g Molybdenum                1.5-450 µg/g Selenium                    0.6-180 µg/g Vanadium                    0.2-60 µg/g	Documented in-house method EW186 based on: USEPA 200.8-1999 USP232-2014 USP233-2014 by ICP-MS (USP)



# Scope of Accreditation



## Environmental Laboratory Services Ltd Biological Testing Laboratory

Permanent Laboratory:  
Category A

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
<b>870 Waters, including effluents</b> .11 Bacterial condition of Potable waters .12 Bacteriological condition of industrial waters Industrial water .16 Bacteriological condition of environmental waters .14 Bacteriological condition of trade wastes	Enumeration of total coliforms and <i>E.coli</i>	Documented in-house method MIC 133, based on The Microbiology of Drinking Water (2009) Part 4 by IDEXX Colilert:- (MPN) Most Probable Number technique
<b>870 Waters, including effluents</b> .11 Bacterial condition of Potable waters .16 Bacteriological condition of environmental waters	Enumeration of enterococci bacteria by Enterolert	Documented in-house method MIC 183, based on The Microbiology of Drinking Water (2012) - Part 5 - Methods for the isolation and enumeration of enterococci