Schedule of Accreditation

Organisation Name	ALS Life Sciences Ltd
Trading As	ALS
INAB Reg No	166T
Contact Name	Denise McAndrew
Address	Carrigeen Business Park, Clonmel, Tipperary, E91 PF63
Contact Phone No	052 617 8100
Email	Denise.McAndrew@ALSGlobal.com
Website	http://www.alsglobal.ie
Accreditation Standard	EN ISO/IEC 17025 T
Standard Version	2017
Date of award of accreditation	04/07/2005
Scope Classification	Biological and Veterinary Testing
Scope Classification	Chemical Testing
Services available to the public[1]	Yes

[1] Refer to document on interpreting INAB Scopes of Accreditation

Sites from which accredited services are delivered		
(the detail of the accredited services delivered at each site are on the Scope of Accreditation)		
	Name	**Address**
1	ALS	Carrigeen Business Park, Clonmel, Tipperary, Ireland, E91 PF63
2	Head Office	ALS Life Sciences Limited trading as ALS, 33 Eastgate Drive, Little Island, Cork, T45C446

Scope of Accreditation

ALS

Biological and Veterinary Testing

Category: A

Biology/veterinary field - Tests	Test name	Technique	Matrix	Equipment	Std. reference	
803 Culture of organisms in liquid or agar based culture media with visual or instrument monitoring for growth - .01 Culture of bacteria	Enumeration and Identification of Legionella sp. (presumptive) by Latex agglutination (Legionella pneumophila serogroup 1, Legionella pneumophilla serogroup 2-14, Legionella Sp.)	Membrane Filtration & Latex Agglutination	Waters - Industrial Waters - Potable water Waters -Swimming pools and spas Waters - Trade waste	N/A	SP182 based on EN ISO 11731:2017 Procedures 8, 9 and 10. Matrix A and B	
	Aerobic colony count (48 hours)	Culture of bacteria	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg	N/A	SP048 based on EN ISO 4833-1: 2013+A1:2022	

			products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Aerobic colony count (72 hours)		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods	N/A	SP030 based on EN ISO 4833-1: 2013+A1:2022	

			and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Coliforms and E.coli Filters/Membrane Filtration	Membrane Filtration	Waters - Environmental water Waters - Industrial Waters - Potable water Waters - Swimming pools and spas Waters - Seawater Waters - Trade waste Waters - Waste water treatment plant effluent (WWTP effluent)	N/A	SP217 based on EN ISO 9308-1:2014 A1:2016 or based on Validated In House Method (using BEC agar)	
	Counting of Air Settle Plates by TVC or Yeasts and Moulds	Culture of bacteria	Air	N/A	SP197 based on an In House method	
	Detection and Enumeration of Pseudomonas	Membrane Filtration	Non-alcoholic beverages	N/A	SP084 based on ISO 16266:2006	

	aeruginosa					
			Waters - Environmental water Waters - Industrial Waters - Potable water Waters - Seawater Waters -Swimming pools and spas Waters - Trade waste Waters - Waste water treatment plant effluent (WWTP effluent)	N/A	SP084 based on ISO 16266:2006	
	Detection of Coagulase Positive Staphylococci	Culture of bacteria	Dairy products Product contact surfaces Surfaces	N/A	SP233 based on ISO 6888-3:2003	
	Detection of Cronobacter species		Dairy products Foodstuffs intended for special nutritional uses Surfaces	N/A	SP096 based on EN ISO 22964:2017	
	Detection of E.coli O157 using the immunomagnetic separation technique	Culture of bacteria and immunomagnetic separation technique	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives	N/A	SP041 based on ISO 16654:2001 + A2:2023	

			Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Detection of E.coli O157:H7 by Neogen Reveal	Reveal® test system	Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Herbs and spices Meat and meat products, game and poultry product contact surfaces Production animals Surfaces	N/A	SP052 based on Neogen 8 hour Reveal and confirmed using the confirmation stages of SP041 based on ISO 16654:2001 + A2:2023	
	Detection of Listeria Species	Culture of bacteria	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea	N/A	SP039/SP181 based on EN ISO 11290-1:2017	

			Compost and related materials Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Detection of Listeria Species using the ALOA One Day Method		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Compost and related materials	N/A	SP142 based on AES ALOA One Day Method for Listeria (AFNOR Approved Certificate No: AES 10/03-09/00) and confirmed by SP181 based on EN ISO11290-1:2017	

			Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Detection of Listeria Spp by Solus Listeria ELISA		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products	DSX™ and DS2™ Automated ELISA Systems	SP154 based on Solus Listeria ELISA Kit Instructions (AFNOR approved Certificate No: SOL 37/02 - 06/13) and confirmed by SP181 EN ISO 11290-1:2017	

			Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Detection of presence or absence of Coliforms in food and animal feedingstuffs		Fish, shellfish and molluscs Meat and meat products, game and poultry	N/A	SP180 based on ISO 4831:2006	
	Detection of presumptive E.coli		Dairy products Product contact surfaces Surfaces	N/A	SP225 based on ISO 7251:2023	
	Detection of presumptive Enterobacteriaceae (Presumptive & Confirmed)		Dairy products Product contact surfaces Surfaces	N/A	SP224 based on EN ISO 21528-1:2017	
	Detection of		Alcoholic beverages	N/A	SP038/SP178 based on ISO	

	Salmonella spp		(other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Compost and related materials Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Dust, boot swabs and faecal matter Soups, broths and sauces Surfaces		6579-1:2017 A1:2020 and BEIC method (20 Eggs Only)	
	Detection of		Alcoholic beverages	DSX™ and	SP102 based on Solus	

	Salmonella spp by Solus Salmonella ELISA		(other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Compost and related materials Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces	DS2™ Automated ELISA Systems	Salmonella ELISA Kit Instructions (AFNOR approved Certificate No: SOL 37/01-06/13) and confirmed by SP178 based on ISO6579-1:2017 A1:2020	
	Enumeration and confirmation of coagulase positive	culture of bacteria	Alcoholic beverages (other than wine) Animal feeds	N/A	SP036 based on EN ISO 6888-1:2021+A1:2023	

	staphylococci		Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, Shellfish and molluscs Food/stock foods and their additives Foodstuff intended for special nutritional uses Fruit and vegetables herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks pet foods prepared dishes product contact surfaces production animals soups, broth and sauces surfaces			
	Enumeration of Coliforms (Presumptive & Confirmed)	Culture of bacteria	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea	N/A	SP035 based on ISO 4832:2006	

			Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Enumeration of β-glucuronidase positive E. coli		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Compost and related materials Dairy products	N/A	SP049 based on ISO 16649-2:2001	

			Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Enumeration of a heterotrophic plate count by membrane filtration	Membrane Filtration	Waters - Industrial Waters - potable water	N/A	SP090 based on HTM 01-01	
	Enumeration of a heterotrophic plate count in potable and industrial waters by the membrane filtration method at 28°C for 7 days		Waters - Industrial Water - Potable water	N/A	SP191 based on based on APHA 9215:2022 Edition 24	
	Enumeration of aerobic and anaerobic	Culture of bacteria	Dairy products	N/A	SP113 based on ISO 4833-1: 2013+A1:2022 for aerobic	

	mesophilic spore forming bacteria				sporeformers and based on Validated In House Method for anaerobic sporeformers	
	Enumeration of aerobic thermophilic spore forming bacteria		Dairy products	N/A	SP220 based on In House Method	
	Enumeration of Anaerobic Microorganisms by colony count technique (Anaerobic Total Viable Count)		Alcoholic beverages (other than wine) Cereals and bakery products Dairy products Egg and Egg products Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Meat and Meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces	N/A	SP129 based on In House Method	
	Enumeration of Campylobacter		Meat and meat products, game and poultry	N/A	SP213 based on EN ISO 10272-2:2017+A1:2023	
	Enumeration of Clostridium perfringens in water	Membrane Filtration	Waters - Environmental water Waters - Industrial Waters - Potable water Water - Seawater Waters -Swimming pools and spas	N/A	SP207 based on ISO 14189:2013	

			Waters - Trade waste Waters - Waste water treatment plant effluent (WWTP effluent)			

	Enumeration of Clostridium perfringens	Culture of bacteria	Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Others- Mixed foods Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces	N/A	SP042 based on ISO 15213-2:2023	
	Enumeration of Coagulase Positive Staphylococci by RPF		Dairy products Product contact surfaces Surfaces	N/A	SP234 based on EN ISO 6888-2:2023	
	Enumeration of	culture of bacteria	Environmental water	N/A	SP031 based on ISO 6222 -	

	culturable microorganisms (22°C for 72 hours, 37°C for 24/48 hours)		Industrial waters Potable waters Seawater Swimming pools and spas trade wastes Waste water treatment plant effluent (WWTP effluent)		1999 and on the microbiology of drinking water (2020) part -7	
	Enumeration of E. coli in shellfish- Most Probable Number Method	Most Probable Number method	Fish, shellfish and molluscs	N/A	SP153 based on EN ISO 16649-3 (2015)	
	Enumeration of Enterobacteriaceae (Presumptive & Confirmed)	Culture of bacteria	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut	N/A	SP033 based on EN ISO 21528-2:2017	

			products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Enumeration of Enterococci		Dairy products Meat and meat products, game and poultry Product contact surfaces Production animals Surfaces	N/A	SP058 based on BS 4285 Section 3.11 1985	
			Waters - Environmental water Waters - Industrial Waters - Potable water Waters - Seawater Waters -Swimming pools and spas Waters - Trade wastes Waters - Waste water treatment plant effluent (WWTP effluent)	N/A	SP071 based on ISO 7899-2 (2000)	
	Enumeration of Escherichia coli and Coliform bacteria - Most Probable Number method (Colilert)	Most Probable Number method	Waters - Environmental water Waters - Industrial Waters - Potable water Waters - Seawater Waters -Swimming pools and spas Waters - Trade wastes Waters - Waste	N/A	SP196 based on ISO 9308-2:2012 and the IDEXX Colilert 18 test kit	

			water treatment plant effluent (WWTP effluent)			

	Enumeration of Listeria monocytogenes and Listeria Species	Culture of bacteria	Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Compost and related materials Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces	N/A	SP040/SP181 based on EN ISO 11290-2:2017	
	Enumeration of mesophilic Lactic acid		Alcoholic beverages (other than wine)	N/A	SP068 based on ISO 15214:1998	

	bacteria		Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Soups, broths and sauces Surfaces			
	Enumeration of presumptive Bacillus cereus		Alcoholic beverages (other than wine) Animal feeds Cocoa and cocoa preparations, coffee and tea Confectionery	N/A	SP045 based on EN ISO 7932:2004 A1:2020	

			Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Enumeration of presumptive Bacillus cereus and presumptive Bacillus species		Cereals and bakery products Dairy products	N/A	SP045 based on EN ISO 7932:2004 A1:2020	
	Enumeration of presumptive Pseudomonas spp		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery	N/A	SP046 based on EN ISO 13720: 2010	

			Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	Enumeration of Sulphite Reducing Clostridia		Dairy products Meat and meat products, game and poultry Product contact surfaces Production animals Surfaces	N/A	SP110 based on BS ISO 15213-1: 2023	
	Enumeration of Thermoduric bacteria		Dairy products Product contact surfaces Surfaces	N/A	SP057 based on In House Validated Method	

	Enumeration of thermophilic bacteria		Dairy products Product contact surfaces Surfaces	N/A	SP222 based on In House Method	
	Enumeration of Yeasts & Moulds in Milk and Milk products		Dairy products	N/A	SP216 based on ISO 6611:2004	
	Enumeration of Yeasts and Moulds - products with water activity greater than 0.95		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and	N/A	SP133 based on ISO 21527-1:2008	

			sauces Surfaces			
	Enumeration of Yeasts and Moulds - products with water activity less than 0.95		Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces	N/A	SP136 based on ISO 21527-2:2008	
	Faecal Coliforms MPN Colilert	Most Probable Number method	Waters - Environmental water Waters - Industrial Waters - Potable water Waters -Swimming pools and spas	N/A	SP200 based on a Validated In House Method	

			Waters - Trade waste Waters - Waste water treatment plant effluent (WWTP effluent)			
	Lactobacillus enumeration	Culture of bacteria	Animal feeds Cocoa and cocoa preparations, coffee and tea Confectionery Foods/stockfoods and their additives Foodstuffs intended for special nutritional uses Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Others - Raw Pastry Pet foods	N/A	SP177 based on a Validated In House Method	
	Method for the Detection of Thermotolerant Campylobacter		Alcoholic beverages (other than wine) Animal feeds Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Egg and egg products Fats and Oils Fish, shellfish and molluscs Foods/stockfoods	N/A	SP043 based on EN ISO 10272-1:2017 +A1:2023, Procedures A and B	

			and their additives Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Product contact surfaces Production animals Soups, broths and sauces Surfaces			
	SP241 Procedure for the identification and confirmation of presumptive isolated colonies using the Bruker MALDI Biotyper • Salmonella spp • Cronobacter spp • Legionella • Campylobacter • Pseudomonas • Enterobacteriaceae • Coliforms • Listeria • Clostridia • Staphylococci	Mass Spectrometry using the MALDI Biotyper	Colonies	Bruker Maldi Biotyper	SP241 Documented & Validated In House Method • Legionella (SP182) • Campylobacter (SP043/SP213) • Pseudomonas aeruginosa in Water (SP084) • Enterobacteriaceae (SP033/SP224) • E. coli and Coliforms in Water (SP217) • Listeria Species (SP039/SP040/SP142/SP154/) • Cronobacter Species (SP096) • Salmonella Species (SP038/SP102/SP178) • Clostridium perfringens (SP042/SP207) • Coliforms (SP035)	

					• Staphylococci (SP036/SP233)	
805 Detection and/or identification of bacterial, parasite, fungal and viral nucleic acids using appropriate techniques - .01 Nucleic acid probe hybridization, CE marked commercial systems	Method for the isolation and confirmation of Shiga Toxin Producing E. coli (STEC) Serogroups (O157, O111, O26, O103, O145, O45 and O121) following PCR detection of virulence genes	Gene amplification and detection by real-time PCR	Meat and meat products, game and poultry Product contact surfaces Production animals Surfaces	Bio-Rad CFX96™ real-time PCR detection system	SP210 based on MLG 5C.03	
	Method for the real-time PCR detection of virulence genes in Shiga Toxin Producing E. coli (STEC) and of 7 major serogroups (O157, O111, O26, O103, O145, O45 and O121)		Meat and meat products, game and poultry Product contact surfaces Production animals Surfaces	Bio-Rad CFX96™ real-time PCR detection system	SP209 based on MLG 5C.03	

Chemical Testing

Category: A

Chemistry Field - Tests	Test name	Analyte	Range of measurement	Matrix	Equipment/technique	Standard reference/SOP
751 Food testing - .02 Nutritional analysis	Ash	Ash	0.1 to 15g/100g	Cereals and bakery products Cocoa and cocoa preparation, coffee and tea Confectionery Dairy products Fish, shellfish and molluscs Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces	By Furnace	SP149 Documented & Validated In House Method
	Determination of Fat Content in Dairy by Gerber	Fat	0.3 - 90 g/100g	Dairy products	Gerber Principle	SP244
	Determination of Fat Content in Dairy by Rose Gottlieb		0.1 - 70 g/100g	Dairy products	Rose Gottlieb	SP245

	Determination of Moisture, Total Oil-Fat in Foods using CEM Microwave - NMR System		0.6 to 50% Fat	Meat and meat products, game and poultry	Nuclear Magnetic Resonance	SP192 Documented & Validated In House Method
		Moisture	30 - 80 g/100g	Meat & meat products, game and poultry	CEM Smart 6 Microwave; CEM ORACLE NMR	SP192 Documented & Validated In House Method
	Determination of Proteins in Foods by Dumas Method using Skalar Primacs 100 Instrument	Nitrogen	0.04 to 20% (g/100g) of Nitrogen	Dairy products, Egg and egg products, Meat and meat products, game, and poultry, Fish, shellfish and molluscs, Soups, broths, and sauces, Cereals and bakery products, Ices and desserts, Fruit and vegetables, Herbs and spices, Cocoa and cocoa preparations, coffee, and tea, Confectionary, Nut and nut products, snacks, Prepared dishes, Foodstuffs intended for special nutritional use, Pet foods	Skalar Primacs 100	SP246 Documented and validated in house method
		Proteins	0.25 to 100% (g/100g) as Proteins	Dairy products, Egg and egg products, Meat and meat products, game, and poultry, Fish, shellfish and molluscs, Soups, broths, and sauces, Cereals and bakery products, Ices and	Skalar Primacs 100	SP246 Documented and validated in house method

				desserts, Fruit and vegetables, Herbs and spices, Cocoa and cocoa preparations, coffee, and tea, Confectionary, Nut and nut products, snacks, Prepared dishes, Foodstuffs intended for special nutritional use, Pet foods		
	Determination of Salt by Titration	Chloride	1 to 10% NaCl	Dairy products - cheese Fish, shellfish and molluscs Meat and meat products, game and poultry	Titration	SP091 Documented & Validated In House Method
	Determination of Salt, Nitrate & Nitrite in Meats & Brines by IC	Chloride by IC	Contents in Meats: -0.5 to 4.5g/100g of Sodium Chloride Concentration in brines: -2 to 22.5% (m/v) of Sodium Chloride	Meat and meat products, game and poultry, Additives, Flavourings, Sweeteners	Ion Chromatography	SP248 Documented and validated in house method
		Nitrate by IC	Contents in Meats: -10 to 270mg/kg of Sodium Nitrate Concentration in brines: -40 to 1370mg/L of Sodium Nitrate	Meat and meat products, game and poultry, Additives, Flavourings, Sweeteners	Ion Chromatography	SP248 Documented and validated in house method
		Nitrite by IC	Contents in Meats: -5 to 300mg/kg of Sodium Nitrite Concentration in brines: -10 to 1500mg/L of Sodium Nitrite	Meat and meat products, game and poultry, Additives, Flavourings, Sweeteners	Ion Chromatography	SP248 Documented and validated in house method
	Meat Content and	Added water	N/A	Meat and Meat	Calculation	SP232 Documented &

	Added water			Products, game and Poultry		Validated In House Method
		Meat Content	N/A	Meat and Meat Products, game and Poultry	Calculation	SP232 Documented & Validated In House Method
	Moisture and Total Solids	Moisture	3.0 to 99.0g/100g	Cereals and bakery products Cocoa and cocoa preparation, coffee and tea Confectionery Fish, shellfish and molluscs Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and desserts Meat and meat products, game and poultry Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces	Oven Drying	SP148 Documented & Validated In House Method
	pH	pH	2 to 10 pH units	Alcoholic beverages (other than wine) Cereals and bakery products Dairy products Egg and egg products Foodstuffs intended for special nutritional uses Fruits and	pH Meter	SP125 Documented & Validated In House Method

				vegetables Meat and meat products, game and poultry Non-alcoholic beverages Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces		
	Salt	Na	0.01 to 10.0% Salt	Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Confectionery Dairy products Fish, shellfish and molluscs Foodstuffs intended for special nutritional uses Fruit and Vegetables Herbs and spices Ices and deserts Meat and meat products, game and poultry Nuts and nut products, snacks Pet Foods Prepared dishes Soups, broths and sauces	By Calculation From Sodium	SP198 Documented & Validated In House Method
	Sodium		0.004 to 4.0% Na	Cereals and bakery products Cocoa and cocoa preparations, coffee and tea	Flame Photometry	SP198 Documented & Validated In House Method

				Confectionery Dairy products Fish, shellfish and molluscs Foodstuffs intended for special nutritional uses Fruit and vegetables Herbs and spices Ices and deserts Meat and meat products, game and poultry Nuts and nut products, snacks Pet Foods Prepared dishes Soups, broths and sauces		
	Titratable Acidity	Acidity	0.1-3.0%	Liquid Milk, Milk Powder & Fresh Cream	Calculation	SP242 based on an In House Method
	Total Carbohydrate and energy	Total Carbohydrate and Energy	N/A	Meat and Meat Products, game and Poultry	Calculation	SP231 Documented & Validated In House Method
	Water Activity	Water Activity	0.11 Aw to 1.00 Aw	Cereals and bakery products Cocoa and cocoa preparations, coffee and tea Dairy products Egg and egg products Fish, shellfish and molluscs Foodstuffs intended for special nutritional uses	Water Activity Meter	SP228 based on BS ISO 18787:2017 and Novasina LabMaster-Aw Meter

				Fruits and vegetables Ices and desserts Meat and meat products, game and poultry Nuts and nut products, snacks Pet foods Prepared dishes Soups, broths and sauces		
766 Environmental testing (inc waters) - .02 Biochemical oxygen demand	BOD and CBOD (Nitrification suppressed BOD)	BOD and cBOD	1.0 to 10,000 mg/l O2	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Dissolved Oxygen Meter	P280 (DO Meter) based on "Methods for the Examination of Waters and Associated Materials", HMSO 1988 5 Day BOD 11 7522120, "APHA 24th edition 2023, Standard Methods for the Analysis of Water and Wastewater 5210 and 4500-C" and HACH HQ Series Portable meters user manual.
766 Environmental testing (inc waters) - .03 Chemical oxygen demand	Chemical Oxygen Demand	COD	5 - 15,000 mg/l O2	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Spectrophotometer	P210 Spectrophotometer method based on APHA 24th edition 2023 5220-D
766 Environmental testing (inc waters) - .05 Inorganic	Alkalinity	CaCO3	10.0 - 500.0 mg/l CaCO3	Bore waters Ground waters Industrial waters Surface waters	Titration	P214 Titrimetric Method based on APHA 24th edition 2023 2320-B

				Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes		
	Ammonia	NH3N	0.02 - 80.0 mg/l NH3N	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gallery Autoanalyser	P281 based on APHA 24th edition 2023 method 4500 NH3 F, and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions
	Chloride	Cl	4 - 20000 mg/l Cl	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gallery Autoanalyser	P281 based on APHA 24th edition 2023 method 4500 - Cl3 E and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions
	Colour	Colour	2 to 500 Hazen	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant	Gallery Autoanalyser	P237 based on APHA 24th edition 2023 Method 2120B + C

				effluent (WWTP effluent) Waters for potable and domestic purposes		
	Fluoride	F	0.08 to 2.0 mg/l F	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Spectrophotometer	P228 SPADNS method based on APHA 24th edition 2023 4500-F-D
	Nitrate calculated from T.O.N and Nitrite	NO3N	1.0 - 100 mg/l NO3N	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gallery Autoanalyser	P281 based on APHA 24th edition 2023 and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions
	Nitrite	NO2N	0.01 - 7.5 mg/l NO2N	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic	Gallery Autoanalyser	P281 based on APHA 24th edition 2023 method 4500 NO2 B, and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions

			purposes		
Orthophosphate	P	0.02 - 40mg/l	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Wastewater treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gallery Autoanalyser	P293 based on APHA 24th edition 2023 method 4500 -P E and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions
Sulphate	SO4	5.0 - 500 mg/l SO4	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Turbidity Meter	P243 Turbidimetric Method based on APHA 24th edition 2023 4500 - SO42-E
Total Hardness	CaCO3	5.0 - 1000 mg/l CaCO3	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Titration	P213 Titrimetric Method based on APHA 24th edition 2023 2340-C
Total Kjeldahl Nitrogen (By Calculation)	Kjeldahl Nitrogen	1.0 - 75 mg/l N	Bore waters Ground waters Industrial waters	Calculation	P285 based on Hach Company Standard Method 10071 10th

				Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes		edition 2014
	Total Nitrogen (Hach)	N	1.0 - 150 mg/l N	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Spectrophotometer	P285 based on Hach Company Standard Method 10071 10th edition 2014
	Total Oxidised Nitrogen	TON	0.25 - 100 mg/l	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gallery Autoanalyser	P281 based on APHA 24th edition 2023 method 4500 NO2 H, and automated colorimetry In-house Method using Gallery Analyser following manufacturer's instructions
	Total Phosphorus	P	0.1 - 50 mg/l P	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water	Spectrophotometer	P207 Ascorbic Acid Method based on APHA 24th edition 2023 4500 - P - E

				treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes		
	Turbidity	Turbidity	0.1 to 1000	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Turbidity Meter	P239 based on APHA 24th edition 2023 Method 2130B
767 Physical test/measurement - .01 pH	pH	pH	4.0 - 10.0	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	pH Meter	P233 Electrometric Method based on APHA 24th edition 2023 4500-H+ - B
767 Physical test/measurement - .02 Conductivity	Conductivity	Conductivity	2 - 6000 µS/cm	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable	Conductivity Meter	P284 Based on APHA 24th edition 2023 Method 2510

				and domestic purposes		
767 Physical test/measurement - .03 Suspended Solids	Total Suspended Solids	Total Suspended Solids	5 - 15,000 mg/l	Bore waters Ground waters Industrial waters Surface waters Sewage Trade wastes Waste water treatment plant effluent (WWTP effluent) Waters for potable and domestic purposes	Gravimetry	P202 Gravimetric Method based on APHA 24th edition 2023 2540-D