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Testing Laboratory TL-502

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Expiration Date November 1, 2027
Effective Date August 3, 2026

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Accredited to ISO/IEC 17025:2017 *Effective Date August 3, 2026*

TL-502

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - OILS	Dielectric Oil	Polychlorinated Biphenyls (PCBs)	ASTM D4059 Standard Test Method for Analysis of polychlorinated Biphenyls in Insulating Liquids (Dielectric oil) by Gas Chromatography.
		Aroclors Aroclor 1242 Aroclor 1254 Aroclor 1260	ASTM D4059 Standard Test Method for Analysis of polychlorinated Biphenyls in Insulating Liquids (Dielectric oil) by Gas Chromatography.
ENVIRONMENTAL – ORGANICS	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing)	Total Petroleum Hydrocarbons: C5-C10, C10-C28 C28-C40, C8-C40 C6-C10, C10-C40 C5-C40, C6-C40 C8-C10	EPA Method 8015C Total Petroleum Hydrocarbons Non-Halogenated Organics using GC-FID / Volatile organic compounds in various sample matrices using equilibrium headspace analysis / Separatory funnel liquid - liquid extraction.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Aldrin; Alfa -BHC, Beta -BHC; Gamma -HCH (Lindano); Delta-BHC; cis-Clordano; trans-Clordano; 4,4´-DDD; 4,4´-DDE; 4,4´-DDT; Dieldrin; Endosulfan I; Endosulfan II; Endosulfan Sulfato; Endrin; Endrin aldehido; Endrin Cetona; Heptacloro; Heptacloro Epoxido; Metoxiclor; Aldrin+Dieldrin; Clordano (Total Isomers); Heptacloro + Heptacloro Epóxido; Lindano; Endosulfán; DDT (Suma de 4,4'-DDD y 4,4´-DDE)	EPA Method 8081B Organochlorine Pesticides by gas Chromatography.
		Polychlorinated Biphenyls (PCBs) PCB No 28; PCB No 52; PCB No 101; PCB No 118; PCB No 138; PCB No 153; PCB No 180; PCB's Sum	EPA Method 8082 A Polychlorinated Biphenyls (PCBs) by gas chromatography
		Volatile Organic Compounds 1,1,1,2-tetracloroetano; 1,1,1-tricloroetano; 1,1,2,2-tetracloroetano; 1,1-dicloroetano; 1,2,3- Triclorobenceno; 1,2,4-Trimetilbenceno; 1,2,4-triclorobenceno; 1,2- Dibromoetano; 1,2-cis- dicloroeteno; 1,1- Dicloro-1-Propeno; 1,2- Diclorobenceno; 1,2-Dicloroetano; 1,2-dicloropropano; 1,2-trans- dicloroeteno; 1,2,3-Tricloropropano; 1,3,5-trimetilbenceno; 1,3-Dicloropropano; 1,3-cis-dicloropropeno; Dibromometano; 1,3diclorobenceno; 1,3- trans-dicloropropeno; 1,4-diclorobenceno; 1-1-2-tricloroetano; Benceno; Bromobenceno; Bromoclorometano; Bromodiclorometano; Bromoformo; sec- Butilbenceno; Clorobenceno; Dibromoclorometano; Cloroformo; 2- Clorotolueno; 4- Clorotolueno; 1,2-dibromo-3-chloropropano; 2,2-Dicloropropano; Estireno; Etilbenceno; Hexachlorobutadiene; Isopropilbenceno; m,p- Xileno; Naftaleno; N- Butilbenceno; N-Propilbenceno; o-Xileno; p-	EPA Method 8260D Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Isopropiltolueno; Ter- butilbenceno; Tetracloroeteno; Tetracloruro de carbono; Tolueno; 1,1,2 tricloreteno; 1,1-Dicloroeteno; Cloruro de Vinilo. Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) DS N° 004-2017-MINAM, Trihalometanos, Xilenos, Diclorometano, 1,2-Dibromo-3-Cloropropano	EPA Method 8260D Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (cont'd.)
		trichloroethene	
		Polycyclic Aromatic Hydrocarbons: Acenafteno; Acenaftileno; Antraceno; Benzo(a)antraceno; Benzo(a)pireno; Benzo(b)fluoranteno; Benzo(e)pireno; Benzo(g,h,i)perileno; Indeno(1,2,3-cd)pireno; Benzo(k)Fluoranteno; Criseno; Dibenzo(a,h)antraceno; Fenantreno; Fluoranteno; Fluoreno; Naftaleno; Pireno; Pentaclorofenol	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
		Polychlorinated Biphenyls: PCB No 101; PCB No 118; PCB No 138; PCB No 153; PCB No 180; PCB No 28; PCB No 52; PCB´s SUM	
		Residues Pesticides off Organochlorine Phosphate and Other: Alachlor; Aldrin; Ametrina; Atrazina; Benalaxil; Ciproconazol; Clodanifop PE (Propargil Ester) ; Clordano cis; Clordano trans; Clordecona; Clorpirifos-etil; Clortal-dimetil; 4,4'-DDD; 4,4'-DDE; 2,4'-DDT; 4,4'-DDT; Diazinon; Diclorvos- triclorfon; Dicofol; Dieldrin; Diflufenican; Dimetoato; Endosulfan I; Endosulfan II; Endosulfan-Sulfato; Endrin; Endrin aldehido; Endrin cetona; EPTC; Etion; Etoprofos; Fenamifos; Flusilazol; Alfa-BHC; Beta-BHC; Delta-BHC; Heptachloro; Heptacloro-Epoxido; Hexaclorobenceno, Isodrin,	

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Gamma-HCH (Lindano), Malation, Metalaxil, Metidation; Metoxicloro; Metribuzina, Miclobutanilo, Mirex, Molinate, Oxifluorfen, Paration-Etil, Paration-Metil, Pendimetalina, pentaclorobenceno, Piridaben, Pirimetanil, Prometrina, Propazina, Propizamida, Simazina, Simetrin, Terbutilazina; Terbutrina; Tetradifon; Trietazina; Trifluralina; Vinclozolina. DS N° 004-2017-MINAM, DDT (Sum) = 4,4'-DDD + 4,4'-DDE, Aldrín + Dieldrín; Heptacloro + Heptacloro Epóxido; Clordano; Endosulfan	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (cont'd.)
		Paration, alacloro, molinato, cloropirifos	
		Pesticide Residues: Aldicarb, Aldicarb Sulfona, Atrazina, Bromacilo, Carbendazima, Carbofuran, clorotoluron, Desetil-Atrazina, Desetil-Terbutilazina, Desetil Terbumeton, Diuron, Isoproturon, Linuron, Metalaclor, Metamitron, Propanilo, Simazina, Tebuconazol, Terbumeturon, Terbutilazina.	PE-623 Pesticide Residues in Water by Chromatography (LC/MS-MS)
		Ortofenil Fenol (OPP), Acetacloro, Aldrin, Benalaxil, Benfluralina, Bifenilo, Bifentrina, Bupirimato, Ciproconazol, Clordano cis, Clordano trans, Clorfenapir, Cloropropilato, Clorpirifos, Clorpirifos Metil, Clorprofam, Clortal Dimetil, Cyhalotrin-L, DDD-pp + DDT- op, Diazinon, Diclobenilo, Dicofol , Dieldrin, Diflufenicán, Disulfotón, Endosulfan Beta, Etofumesato, Etoprofos, Fenarimol, Fenazaquina, Fenpropatrin, Fention, Fonofos, Isazofos, Hexazinona; Isofenfos, Isofenfos Metil, Kresoxim Metil, Metacrifós, Metalaxil, Metribuzina, Miclobutanil, Mirex, Molinato, Napropamida, Nuarimol, Ofurace, pp- DDE, Penconazol, Pendimetalina, Pentacloroanilina, Pentacloroanisol,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Pentaclorobenceno, Permetrina, Pirifenox, Pirimetanil, Pirimicarb, Pirimifos Metil, Procimidona, Protiofós, Quinalphos, Quintoceno, Simazina, Tebuconazol, Tebufenpirad, Tecnaceno, Teflutrin, Terbutilazina, Terbutrin, Tetraconazol, Tetradifón, Tetrametrina, Tiometon, Tolclofos Metil, Transflutrin, Triadimenol, Trifluralina, Vinclozolina, 2,4,6-Trichlorophenol, 2,4- DDD, 2,4-DDE, 4,4 Dicclorobenzofenona, Ametrina, Buprofezin, Clorbenzilat, Clorfenson, Clormefos, Diclobutazol, Diclofention, Endrin, EPTC, Etrimfos, Fenclorfos, Fluazifop- Butil, Fluopicolide, Fluopiram, Fluotrimizol, Folpet, Furalaxil, Heptacloro, Hexaconazol, Lindano, Paraoxon Etil, Propaclor, Tetrahidroftalamida (Captan), Clordano, Dieldrin (SUM), Abamectina, Acetamiprid, Aldicarb, Aldicarb Sulfona, Aldicarb Sulfoxido, Azoxistrobina, Bendiocarb, Bentiavalicarb, Boscalida, Bromuconazol, Butoxicarboxim, Cadusafos, Carbaril, Carbofuran, Ciazofamida, Cimoxanilo, Clofentezina, Clomazona, Clorantranilliprole, Clotianidin, Desmedifam, Diclormid, Dietofencarb, Dimetoato, Dimetomorf, Dodemorf, Epoxiconazol, Espinetoram, Espinosad, Espirodiclofeno, Espiromesifeno, Espirotetramat, Espiroxamina, Etiprol, Etofenprox, Etoxazol, Famoxadona, Fenamidona, Fenbuconazol, Fenhexamida, Fenmedifan, Fenpiroximato, Fenpropidin, Fenpropimorfo, Fensulfotion, Flonicamid, Fludioxonilo, Flufenacet, Flufenoxuron, Fluometuron, Fluquinconazol, Flusilazol, Flutolanil, Flutriafol, Forato Sulfona, Forato Sulfoxido,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Forclorfenuron, Fostiazato, Furatiocarb, Hexitiazox, Imazalil, Imidacloprid, Indoxacarb, Isocarbofos, Isoproturón, Isoxabén, Lenacilo, Linurón, Mandipropamid, Mecarbam, Mepanipirim, Metaflumizona, Metamitrona, Metazacloro, Metiocarb, Metolacloro, Metolcarb, Metomilo, Metoxifenoxida, Metoxuron, Metrafenona, Monocrotofós, Monolinurón, Nitenpiram, Novalurón, Ometoato, Oxadiargilo, Oxadiazón, Oxamilo, Oxicarboxina, Pencicurón, Picoxistrobina, Piraclostrobina, Profam, Propamocarb, Propanil, Propaquizafop, Propiconazol, Propoxur, Proquinazid, Prosulfocarb, Quinoxifen, Quizalofop-ethyl, Rotenona, Sulfotep, Tiabendazol, Thiametoxam, Tiacloprid, Tiodicarb, Tridemorfo, Trifloxystrobin, Triflumizol, Triflumurón, Zoxamida, 2,4-D, Acefato, Acequinocyl, Azadiractina, Azametifos Azimsulfurón, Azinfos Etil, Azinfos Metil, Benomilo-Carbendazima,Bioaletrina, Bromoxinil, Butralina, Carbofuran-3-Hidroxi, Carboxim, Carfentrazona Etil, Cicloato, Ciflufenamida, Cihexatina, Clorfluazuron, Cloridazon, Cyantraniliprole, Demeton S Metil sulfona, Dialifos, Diclorvos, Diclofop, Diclofop Metil, Diclorprop, Dinocap, Dinotefuram, Diuron, DNOC, Emamectina Benzoato, Espirotetramat- Cis-ketohidroxi, Espirotetramate-Enol-Glucoside, Espirotetramate-Monohidroxi, Ethirimol, Fenobucarb, Fenpirazamina, Flazasulfuron, Flumioxazina, Formetanato, Fosmet, Fuberidazol, Haloxifop- Metil, Haloxyfop-2-Ethoxyetil, Haloxifop, Himexazol, Imazamox, Indaziflam, Ioxinil,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	MCPA, Metamidofos, Metiocarb sulfóxido, Nicosulfuron, Orizalin, Pentiopirad, Piraflufeno, Promecarb, Quinclorac, Rimsulfuron, Saflufenacil, Sulcotriona, Sulfoxaflor, Terbufos sulfona, Terbufos sulfoxido, TFNA, TFNG, Tiobencarb, Tiociclam, Tolilfluanida, Triclopir, Triclorfon, Triciclazol, Triforina, Aldicarb (SUM), Carbofuram(SUM), Dimetoato (SUM), Flonicamid (SUM), Haloxifop (SUM), Metomilo (SUM), Piraflufeno-etilo (SUM), Thiametoxam (SUM), Hexazinona	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)
		Petroleum Hydrocarbon emulsified or dissolved (C10-C28 and greater than C28) Petroleum Hydrocarbon emulsified or dissolved mineral oil	PP-210 Total Petroleum Hydrocarbons Calculated In Water and Soils. Reference EPA 8015.
		Phthalate esters: Bis (2- ethylhexyl) phthalate, Butyl benzyl phthalate, Di-n- butyl phthalate, Diethyl phthalate, Dimethyl phthalate, Di-n-octyl phthalate	PP-222 Determination of Phthalate Esters in water by Gas Chromatography with mass Detector Masses.
		Total Petroleum Hydrocarbons (Aromatic Fraction)	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
		Oil and Grease	ASTM D7066 - 04 (Reapproved 2024) Standard Test Method for dimer/trimer of chlorotrifluoroethylene (S-316) Recoverable Oil and Grease and Nonpolar Material by Infrared Determination (Validated modified)
		Chlorophyll A	SMEWW-APHA-AWWA-WEF 10150 B. 24th Ed. 2023 Chlorophyll A. Spectrophotometric Determination of Chlorophyll A.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Sea water, Drinking Water, Natural Water, and Wastes Water	Cyanazine	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
	Natural Water, Drinking Water, Process Water	Formaldehyde	ASTM D 6303–98 VALIDATED (Applied Outside the Scope): Standard Test Method for Formaldehyde in Water
	Natural Water, Drinking Water and Process Water	Cyanogen Chloride	SMEWW-APHA-AWWA-WEF Part 4500-CN^- J , E. 24th Edition. Cyanide. Cyanogen Chloride. Colorimetric Method
	Natural Water, Drinking Water, Saline Water, Process Water and Wastewater	Conductivity	SMEWW-APHA-AWWA-WEF Part 2510 B. 24th Edition. Conductivity. Laboratory Method
	Natural Water, Drinking Water, (Field collection + Lab Testing)	2,4-DB 2,4,5-T Fenoprop Mecoprop Piriproxifeno Clorotoluron Isoproturon MCPA Aldicarb Carbofuran	EPA Method 538 Rev.1.0:2009 Determination of Selected Organic Contaminants in Drinking Water by Direct Aqueous Injection-Liquid Chromatography/Tandem Mass Spectrometry (DAI-LC/MS/MS)
		Dichloroacetate Monochloroacetate Trichloroacetate	EPA Method 552.3 Rev01.2003 Determination of Haloacetic Acids and Dalapon in Drinking Water by Liquid-Liquid Microextraction, Derivatization, and Gas Chromatography With Electron Capture Detection
		Microcistin-LR	PE-661 Determination Of Microcystins In Waters By Lc Triple Quadrupole

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Natural Water, Drinking Water, (Field collection + Lab Testing) (cont'd.)	Chloral hydrate (trichloroacetaldehyde) Dibromoacetonitrile Dichloroacetonitrile	EPA METHOD 551.1 Determination of Chlorination Disinfection Byproducts, Chlorinated Solvents, and Halogenated Pesticides/Herbicides in Drinking Water By Liquid-Liquid Extraction and Gas Chromatography With Electron-Capture Detection
	Soil, Sediments and Sludges (Field collection + Lab Testing)	Total Petroleum Hydrocarbons: C5-C10 C10-C28 C28-C40 C6-C10 C6-C40 C10-C40 C5-C40	EPA Method 8015C Total Petroleum Hydrocarbons Non-Halogenated Organics using GC-FID / Volatile organic compounds in various sample matrices using equilibrium headspace analysis / Microwave Extraction
		Total Petroleum Hydrocarbons Non-Halogenated Organics using GC-FID/ DS N° 011-2017-MINAM Total Petroleum Hydrocarbons: >C10 – C28 Total Petroleum Hydrocarbons: >C28– C40 Total Petroleum Hydrocarbons: >C10 - C40	
		Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) 1,1,1,2-tetracloroetano; 1,1,1-tricloroetano; 1,1,2,2-tetracloroetano; 1,1dicloroetano; 1,2,3-Triclorobenceno; 1,2,4-Trimetilbenceno; 1,2,4-triclorobenceno; 1,2-cis-dicloroeteno; 1,2-Diclorobenceno; 1,2-Dicloroetano; 1,2-dicloropropano; 1,2-trans-dicloroeteno; 1,3,5- trimetilbenceno; 1,3-cis-dicloropropeno; 1,3 diclorobenceno; 1,3- trans-dicloropropeno; 1,4-diclorobenceno; 1,1,2- tricloroetano; Benceno; Bromobenceno; Bromoclorometano;	EPA Method 8260D Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments and Sludges (Field collection + Lab Testing) (cont'd.)	Bromodiclorometano; Bromoformo; Clorobenceno; Dibromoclorometano; Cloroformo; 2- Clorotolueno; 1,2-dibromo-3-chloropropane; 1,2- Dibromoetano; Dibromometano; 1,1- Dicloro-1-Propeno; 1,3- Dicloropropano; 2,2-Dicloropropano; Estireno; Etilbenceno; Hexaclorobutadieno; Isopropilbenceno; m,p- Xileno; Naftaleno; N- Butilbenceno; N-Propilbenceno; o-Xileno; p-Isopropiltolueno; Ter- butilbenceno; Tetracloroetileno; Tetracloruro de carbono; Tolueno; 1,1,2 Tricloroeteno, 1,2-Dietilbenceno; 1,2,3,4 - Tetraclorobenceno, 1,2,3,5 -Tetrametilbenceno; 1,2,4,5 - Tetrametilbenceno; 1,2,4,5-Tetraclorbenceno; metil-t-butil-eter; 1,1,2- Tricloroetano; 1,2,3-Tricloropropano	EPA Method 8260D Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (cont'd.)
		Volatile Organic Compounds: DS N° 011-2017-MINAM o- Xileno, m- Xileno, p- Xileno, Xilenos	
		Polycyclic Aromatic Hydrocarbons: Acenafteno, Acenaftileno, Antraceno, Benzo(a)antraceno, Benzo(a)pireno, Benzo(b)fluoranteno, Benzo(e)pireno, Benzo(g,h,i)perileno, Benzo(k)fluoranteno, Criseno, Dibenzo(a,h)antraceno, Indeno(1,2,3-cd)pireno; Fenantreno, Fluoranteno, Fluoreno, Naftaleno, Pireno.	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)
		Residues Pesticides off Organochlorine Phosphate and Other: Alachlor, Aldrin, Ametrina, Atrazina, Benalaxil, Cipermetrina, Ciproconazol, Clodanifop PE (Propargil Ester), Clordano-cis, Clordano-trans, Clordecona, Clorfenvinfos, Clorpirifos, Clortal-	

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments and Sludges (Field collection + Lab Testing) (cont'd.)	Dimetil, 4,4'-DDD, 4,4'-DDE, 2,4'-DDT, 4,4'-DDT, Diazinon, Diclorvos- Triclorfon, Dicofol, Dieldrin, Diflufenican, Dimetoato, Endosulfan I, Endosulfan II, Endosulfan-Sulfato, Endrin, Endrin Aldehido, Endrin Cetona, EPTC, Etion, Etoprofos, Fenamifos, Flusilazol, Alfa-BHC, Beta-BHC, Delta-BHC, Heptachloro, Heptacloro-Epoxido, Hexaclorobenceno, Isodrin, Lindano (HCH-gamma), Metolacloro, Metalaxil, Metidation, Metoxicloro, Metribuzina, Miclobutanilo, Mirex, Molinato, Oxifluorfen, Paration-Etil, Paration-Metil, Pendimetalina, Pentaclorobenceno, Pirimetanil, Prometrina, Propazina, Propizamida, Simazina, Simetrin, Terbutilazina, Terbutrina, Tetradifon, Trietazina, Trifluralin, Vinclozolina. DDT (Sum) = 4,4'-DDT + 4,4'-DDE + 4,4'-DDD, Heptacloro y Heptacloro epóxido (Sum) = Heptacloro + Heptacloro epóxido	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS) (cont'd.)
		Hexane Extractable Material	EPA Method 9071B n-Hexane Extractable Material (HEM) for Sludge, Sediment and Solid Samples
		Total Organic Matter	PEC-012 Determination of Total Organic Matter.
		Aliphatic and Aromatic Hydrocarbons	TNRCC Method 1005, TNRCC Method 1006 Total Petroleum Hydrocarbons / Characterization of Nc6 to Nc35 Petroleum Hydrocarbons in Environmental Samples.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments (Field collection + Lab Testing)	Polychlorinated Biphenyls: PCB No 101, PCB No 118, PCB No 138, PCB No 153, PCB No 180, PCB No 28, PCB No 52, PCB´s SUM	EPA Method 8270E Semi-volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS).
		Ortofenil fenol(OPP), Acetacloro, Carination, Alacloro, Aldrin, Atrazina, Benalaxil, Benfluralina, Bifenazato, Bifenilo, Bifentrina, Bitertanol, Bromofos Metil, Bromopropilato, Bupirimato, Carbofenotion, Ciflutrin, Cipermetrina, Ciproconazol, Ciprodinil, Clordano cis, Clordano trans, Clorfenapir, Clorfenvinfós, Cloropropilato, Clorpirifos, Clorpirifos Metil, Clorprofam, Clortal Dimetil, Cyhalotrin-L, DDD- pp +DDT-op, Diazinon, Diclobenilo, Diclorán, Dicofol, Dieldrin, Difenilamina, Difenoconazol, Diflufenicán, Diniconazol, Disulfotón, Disulfotón sulfona, Disulfotón sulfoxido, Endosulfan Alfa, Endosulfan Beta, Endosulfan Sulfato, Etion, Etofumesato, Etoprofos, Fenarimol, Fenazaquina, Fenitrotión, Fenpropatrin, Fention, Fentoato, Fenvalerato+ Esfenvalerato, Flucitrinato, Iprovalicarb, Isazofos, Isofenfos, Isofenfos Metil, Kresoxim Metil, Malation, Mepronilo, Metacrifós, Metalaxil, Metoxicloro, Metribuzina, Miclobutanil, Mirex, Molinato, Napropamida, Nuarimol, Ofurace, Oxadixilo, Oxifluorfen; p.p-DDE, p.p-DDT, Paration Etil, Penconazol, Pendimetalina, Pentacloroanilina, Pentacloroanisol, Pentaclorobenceno, Permetrina, Piridabén, Pirifenox, Pirimetanil, Pirimicarb, Pirimifos Etil, Pirimifos Metil, Piriproxifén, Procimidona, Profluralin, Propargita, Propizamida, Protiofós, Quinalfós, Quintoceno, Simazina, Tebuconazol, Tebufenpirad, Tecnaceno, Teflutrin, Terbacil, Terbutilazina, Terbutrin,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments (Field collection + Lab Testing) (cont'd.)	Tetraconazol,Tetradifón, Tetrametrina,Tiometon, Tolclofos Metil, Transflutrin, Triadimenol, Trifluralina, Vinclozolina, 2,4-DDD; 2,4-DDE, 4.4-Diclorobenzofenona, Ametrina,Buprofezin, Clorbenzilat, Clorfenson, Clormefos,Clorotalonil, Clortoluron,Clozolinato, DEET, Diclobutazol, Diclofention,Endrin, Etrimfos,Fenclorfos, Fluazifop-Butil, Fluopicolide,Fluopiram,Fluotrimizol, Folpet, Formotion, Fosfamidon, Furalaxil, Heptacloro, Hexaconazol, Lindano, Prometrina,Propaclor, Terbumeton, Triadimefon, Clordano, DDT (SUM), Dieldrin (SUM), Disulfutón (SUM), Endosulfan (SUM), Triadimefon y Triadimenol. Abamectina, Acetamiprid, Aldicarb, Aldicarb Sulfona, Aldicarb Sulfoxido, Azoxistrobina, Bendiocarb, Bentiavalicarb,Boscalida, Bromuconazol, Butoxicarboxim, Cadusafos, Carbaril, Carbofuran, Ciazofamida,Cimoxanilo, Clofentezina,Clomazona, Clorantraniliprole, Clotianidin, Oxidemetón- metilo, Desmedifam, Diclormid,Dietofencarb, Diflubenzuron, Dimetoato, Dimetomorf, Dodemorfo, Epoxiconazol, Espinetoram, Espinosad, Espirodiclofeno, Espiromesifeno, Espirotetramat, Espiroxamina,Etiofencarb, Etiprol, Etofenprox,toxazol, Famoxadona, Fenamidona, Fenamifos, Fenbuconazol, Fenhexamida, Fenmedifan, Fenpiroximato, Fenpropidin, Fenpropimorfo, Fensulfotion, Flonicamid, Fludioxonilo, Flufenacet, Flufenoxuron, Fluometuron, Fluquinconazol, Flusilazol, Flutolanil, Flutriafol, Forato, Forato Sulfona, Forato Sulfoxido, Forclorfenuron, Fostiazato, Furatiocarb, Hexaflumuron, Hexitiazox, Imazalil, Imidacloprid, Indoxacarb,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments (Field collection + Lab Testing) (cont'd.)	Isocarbofos, Isoproturón,Isoxabén, Lenacilo,Linurón, Mandipropamid, Mecarbam, Mepanipirim, Metaflumizona, Metamitrona, Metazacloro, Metil Tiofanato, Metiocarb, Metolacloro, Metolcarb, Metoxifenoxida, Metoxuron, Metrafenona, Monocrotofós, Monolinurón, Nitenpiram, Novalurón, Ometoato, Oxadiargilo, Oxadiazón, Oxamilo, Oxicarboxina, Pencicurón, Picoxistrobina, Piraclostrobina, Profam, Propanil,Propaquizafop, Propiconazol,Propoxur, Proquinazid,Prosulfocarb, Quinoxifen, Quizalofop- Ethyl, Rotenona, Tebufenocida, Teflubenzurón, Terbufos, Tiabendazol, Thiametoxam, Tiacloprid, Tiodicarb, Tridemorfo, Trifloxystrobin, Triflumizol, Triflumurón, Zoxamida,Acefato, Acequinocyl,Azadiractina, Azametifos, Azimsulfurón, Azinfos Etil, Azinfos Metil, Bentazona, Metil, Bioaletrina, Bromacilo, Butacloro, Butralina, Carbofuran-3-Hidroxi, Carboxim, Carfentrazona Etil, Cicloato, Cicloxidim, Ciflufenamida, Cihexatina, Clorfluazuron, Cloridazon, Cyantraniliprole, Demeton S MetIl Sulfona, Dialifos, Diclorvos, Diclofop Metil, Dinocap, Dinotefuram, Diuron, Emamectina Benzoato, Espirotetramat-Cis-Ketohidroxi, Espirotetramate-Enol-Glucoside, Espirotetramate-Monohidroxi, Etiofencarb sulfÓxido, Ethirimol, Fenbutatín Oxido, Fenobucarb, Fenpirazamina, Flubendiamida, Flumioxazina, Fosmet, Fuberidazol, Haloxifop Metil, Haloxyfop- 2-Ethoxyetil, Indaziflam, Metamidofos, Metiocarb sulfona, Metiocarb sulfóxido, Orizalin, Pentiopirad, Piraflufeno- etilo, Promecarb, Rimsulfuron, Saflufenacil, Sulfoxaflor, Terbufos- Oxon-Sulfone,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS (cont'd.)	Soil, Sediments (Field collection + Lab Testing) (cont'd.)	Terbufos sulfona, TFNG, Tiobencarb, Tiociclam, Tolilfluanida, Triclopir, Triclorfon, Triciclazol, Aldicarb (SUM), Dimetoato (SUM), Metiocarb (SUM), Forato (SUM), Oxidemetón- metilo	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)
	Air (Field collection + Lab Testing)	HCT (Hexano), VOCs (Benceno)	ASTM D3687 Analysis of Organic Compound Vapors Collected by the Activated Charcoal Tube Adsorption Method.
		Hidrocarburos No Metanos HCNM	PP-223 Determination of non-methane hydrocarbons in the Atmosphere
	Fish & Hydrobiological (Field collection + Lab Testing)	Total Petroleum Hyrocarbons: (C10-C28, C28-C40)	PP-217 Total petroleum hydrocarbons in fish based on EPA 8015C.
		PAHs: Acenafteno, Acenaftileno, Antraceno, Benzo(a)antraceno, Benzo(a)pireno, Benzo(b)fluoranteno, Benzo(e)pireno, Benzo(k)Fluoranteno, Criseno, Fenantreno, Fluoranteno, Fluoreno, Pireno. Benzo(g,h,i)perileno, Dibenzo(a,h)antraceno; Naftaleno; Indeno(1,2,3,cd) pireno; Benzo(g,h,i)perileno, Dibenzo(a,h)antraceno; Naftaleno; Indeno(1,2,3,cd)pireno	PP-219 Determination of Polycyclic Aromatic Hydrocarbons in Fish based on EPA 8270E
	Soil, Sediment	Relative distribution of Aliphatics Total fraction of Aliphatics Relative distribution of Aromatics Total fraction of aromatics	TNRCC Method 1005, TNRCC Method 1006 Total Petroleum Hydrocarbons / Characterization of Nc6 to Nc35 Petroleum Hydrocarbons in Environmental Samples.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS + SAMPLING.	Petroleum Products, Drinking water, natural water, saline water, process water, wastewater Soil, Sediments.	Fingerprint. GC-FID: Nonane (C9), Decane (C10), Undecane (C11), Dodecane (C12), Tridecane (C13), Tetradecane (C14), Pentadecane (C15), Hexadecane (C16), Norpristane, Heptadecane (C17), Pristane, Octadecane (C18), Phytane, O-Terphenyl, Nonadecane (C19), Eicosane (C20), Heneicosane (C21), Docosane (C22), Tricosane (C23), Tetracosane (C24), Pentacosane (C25), Hexacosane (C26), Heptacosane (C27), Octacosane (C28), Nonacosane (C29), Triacontane (C30), Hentriacontane (C31), Dotriacontane (C32), Tritriacontane (C33),Tetratriacontane (C34), Pentatriacontane (C35), Hexatriacontane (C36), Heptatriacontane (C37), Octatriacontane (C38), Nonatriacontane (C39), Tetracontane (C40). **GC-MASS:** Decalina; 1-methyl-adamantane;1,3,5-trimethyl adamantane; C1-decalins; 1,2,3,4 tetrahydronaphthalene; 2-methyl adamantane; cis-1,4-dimethyl adamantane; trans-1,4-dimethyl adamantane; naphthalene; 1,3,6-trimethyl-adamantane; 1,2-dimethyl-adamantane; 2,6-dimethylundecane; cis-1,3,4-trimethyl-adamantane;2-methyl-1,2,3,4-tetrahydronaphthalene; trans-1,3,4-trimethyl-adamantane; 1,2,5,7-tetramethyl-adamantane; C2-decalins; hexylbenzene; 2-ethyl-adamantane; 2,6,10-trimethylundecane; 1-methyl-naphthalene; C14H26-bicyclic sesquiterpene BS1;meta-hexyl-toluene; C14H26-bicyclic sesquiterpene BS2; C3-decalin range peak; heptylbenzene; ortho-	UNE-EN 15522-2 Oil spill identification - Petroleum and petroleum related products - Part 2: Analytical method and interpretation of results based on GC-FID and GC-low resolution-MS analyses

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS + SAMPLING. (cont'd.)	Petroleum Products, Drinking water, natural water, saline water, process water, wastewater Soil, Sediments. (cont'd.)	hexyl-toluene; Branched alkane 169-1; 2,6,10 trimethyldodecane; biphenyl; 2-ethyl-naphthalene; 2,6+2,7-dimethyl-naphthalene; 1,3+1,7-dimethyl-naphthalene; 1,6-dimethyl-naphthalene; C15H28-BS3 bicyclic sesquiterpene; C2-benzothiophenes; Acenaphthylene; meta-heptyl-toluene; 1,2-dimethyl-naphthalene; Branched alkane169–2; 2,6,10-trimethyltridecane; Branched alkane m/z 169–3; C15H28-bicyclic sesquiterpene BS4; C15H28-8β(H)-drimane; ortho-heptyl-toluene; C15H28-bicyclic sesquiterpene BS6; Acenaphthene; pentadecane; Diamantane, Dibenzofuran; FAME C12:0; 1,3,7-Trimethylnaphthalene; 4-Methyldiamantane; 1,3,6-Trimethylnaphthalene; C16H30 Bicyclic sesquiterpene BS8; n-Nonylcyclohexane; C16H30 Bicyclic sesquiterpene BS9; meta-Octyltoluene; C16H30-8β(H)-Homodrimane; ortho-Octyltoluene; Fluorene; Norpristane; meta-Nonyltoluene; Decylbenzene; ortho-Nonyltoluene; Heptadecane; Pristane; 1-Methylfluorene; FAME C14:0; n-Undecylcyclohexane; Branched alkane 225–1; Phenanthrene; Anthracene; Octadecane; Phytane; C2-fluorenes; Carbazole; Alkane; branched 225–2; 4-methyl-dibenzothiophene; Branched alkane 225–3; meta-undecyl-toluene; dodecyl-benzene; ortho-undecyl-toluene; 3-Methylphenanthrene; nonadecane; 1-methyl-dibenzothiophene; FAME C16:1; 2-methyl-phenanthrene; 2-methyl-anthracene; FAME C16:0; 1-methyl-phenanthrene; C2-dibenzothiophenes; 1-ethyl-enanthrene; C2-phenanthrenes anthracenes; 1,7-dimethyl-	UNE-EN 15522-2 Oil spill identification - Petroleum and petroleum related products - Part 2: Analytical method and interpretation of results based on GC-FID and GC-low resolution-MS analyses (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS + SAMPLING. (cont'd.)	Petroleum Products, Drinking water, natural water, saline water, process water, wastewater Soil, Sediments. (cont'd.)	phenanthrene; Fluoranthene; C3-dibenzothiophenes; FAME C18:2; FAME C18:1 +C18:3; Pirene; FAME C18:0; C3-phenanthrenes-anthracenes; 2-methyl-fluoranthene; pentadecyl-benzene; benzo(a)-fluorene; 1-methyl-7-isopropyl-phenanthrene; C4-phenanthrenes-anthracenes; 2-methyl-pyrene; 4-methyl-pyrene; 1-methyl-pyrene; C23 tricyclic terpene; tetramethylphenanthrene; FAME C20:0; C24 tricyclic terpene; Benzo[b]naphtho[1,2-d]thiophene; heptadecyl-benzene; Triaromatic C20-sterane; Benzo(a)anthracene; Chrysene/Triphenylene; Triaromatic C21-sterane; 1-methyl-3-phytanylbenzene; C1-chrysenes; 13β (H),17α(H), 20S – cholestane; 13β (H),17α(H), 20R – cholestane; Benzo[b]fluoranthene; Benzo[k]fluoranthene; 5α (H),14β(H),17β(H), 20(R+S)-cholestane; C29 tricyclic terpene; benzo(e)pyrene; benzo(a)pyrene; 18α(H)-22,29,30-trisnorneohopane; C26,20S-triaromatic sterane; 24-methyl-5α(H),14β(H),17β(H),20(R+S)-cholestane; 17α(H)-22,29,30-trisnorhopane; C26,20R- + C27,20S-triaromatic sterane; 24-ethyl-5α(H),14α(H),17α(H), 20S cholestane; 24-ethyl-5α(H),14β(H),17β(H), 20(R+S)-cholestane; 17α(H), 21β(H)-28,30-bisnorhopane; 17α(H), 21β(H)-25,28,30-trisnorhopane; C28,20S-triaromatic sterane; 24-ethyl-5α(H),14α(H),17α(H),20R-cholestane; 17(H), 21β(H)-30-norhopane; 17α(H), 21β(H)-hopane (hopane); C28,20R-triaromatic sterane; Indeno[1,2,3-cd]pyrene; Dibenzo[a,h]anthracene; Benzo[g,h,i]perylene; 17α(H),	UNE-EN 15522-2 Oil spill identification - Petroleum and petroleum related products - Part 2: Analytical method and interpretation of results based on GC-FID and GC-low resolution-MS analyses (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – ORGANICS + SAMPLING. (cont'd.)	Petroleum Products, Drinking water, natural water, saline water, process water, wastewater Soil, Sediments. (cont'd.)	21β(H), 22(S)- homohopane; gammacerane; 17α(H), 21β(H)-hopane (hopane); C28,20R-triaromatic sterane; Indeno[1,2,3-cd]pyrene; Dibenzo[a,h]anthracene; Benzo[g,h,i]perylene; 17α(H), 21β(H), 22(S)- homohopane; gammacerane; 17α(H), 21β(H), 22 S bishomohopane; Nitrobenzene-D5 (S); 2 Fuorobiphenyl (S); p-Terphenyl d14 (S); Nonane(C9); Dean (C10); Undecane (C11); Dodecane (C12); Tridecane (C13); Tetradecane (C14); Hexadecane (C16); O-Terphenyl; Eicosane (C20); Heneicosane (C21); Docosane (C22); Tricosane (C23); Tetracosane (C24); Pentacosane (C25); Hexacosane (C26); Heptacosane (C27); Octacosane (C28); Nonacosane (C29); Triacontane (C30); Hentriacontane (C31); Dotriacontane (C32); Tritriacontane (C33); Tetratriacontane (C34); Pentatriacontane (C35)	UNE-EN 15522-2 Oil spill identification - Petroleum and petroleum related products - Part 2: Analytical method and interpretation of results based on GC-FID and GC-low resolution-MS analyses (cont'd.)
	Air	Benzene	EN 13528:1 EN 13528:2 EN 13528:3 Ambient air quality - Diffusive samplers for the determination of concentrations of gases and vapours - Requirements and test methods Part 1: General requirements Part 2: Specific requirements and test methods Part 3: Guide to selection, use and maintenance
ENVIRONMENTAL – ORGANOLEPTIC	Drinking Waters, Bottled Waters (Field collection + Lab Testing)	Odor Flavor	SMEWW-APHA-AWWA-WEF Part 2170 B. 24th Ed. 2023 Flavor Profile Analysis

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing)	Cyanide WAD	ASTM D4374–6 Standard Test Methods for Cyanides in Water—Automated Methods for Total Cyanide, Weak Acid Dissociable Cyanide, and Thiocyanate.
		Dissolved – Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn Add Elements. B, Bi, Ca, Ce, Fe, K, Li, Mg, Na, P, Sn, Sr, Ti, W, S, Si (Validated) Total – Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn. Add Elements: B, Bi, Ca, Ce, Fe, K, Li, Mg, Na, P, Sn, Sr, Ti, W,S, Si (Validated). Saline Water: (Validated) Total and Dissolved – Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, Th, Tl, U, V, Zn, B, Bi, Ca, Ce, Fe, K, Li, Mg, Na, P, Sn, Sr, Ti, W, S, Si.	EPA Method 200.8 Determination of Trace Elements in Waters and Wastes by Inductively Coupled Plasma- Mass Spectrometry (ICP-MS)
		Bromate, Chlorite and Chlorate	EPA Method 300.0 Determination of Inorganic Anions by Ion chromatography
		Total Nitrogen (N-NO3 + N-NO2 + N Kjeldahl)	SMEWW-APHA-AWWA-WEF. Part 4500 N A / EPA METHOD 300.0 / SMEWW-APHA-AWWA-WEF. Part 4500 – Norg C
		Free Cyanide and Total Cyanide	UNE-EN ISO 14403-2: 2013 Determination of Free Cyanide and Total Cyanide by Continuous Flow Analysis.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Silicate	SMEWW- APHA-AWWA-WEF. 4500-SiO2 D. 24 th Ed. 2023 Silica. Heteropoly Blue Method (Validated outside scope)
		$N\text{-}NO_3$ + $N\text{-}NO_2$ (calculate)	PP-232 Sum of Nitrates + Calculated Nitrites in Waters / DS N° 004-2017-MINAM.
		Color	SMEWW-APHA-AWWA-WEF Part 2120 C. 24 th Ed. 2023 Color.Spectrophotometric-Single- Wavelength method (proposed).
		Acidity	SMEWW-APHA-AWWA-WEF Part 2310 B. 24 th Ed. 2023Acidity Titration Method.
		Alkalinity, Bicarbonate, Carbonate	SMEWW-APHA-AWWA-WEF Part 2320 B. 24 th Ed. 2023 Alkalinity. Titration Method
		Hardness	SMEWW-APHA-AWWA-WEF Part 2340 C. 24 th Ed. 2023 Hardness, EDTA Titrimetric Method.
		Total Solids	SMEWW-APHA-AWWA-WEF Part 2540 B. 24 th Ed. 2023Solids. Total Solids dried at 103 a 105 °C.
		Total Dissolved Solids	SMEWW-APHA-AWWA-WEF Part 2540 C. 24 th Ed. 2023Solids: Total Dissolved Solids dried at 180 °C.
		Settelable Solids	SMEWW-APHA-AWWA-WEF Part 2540 F. 24 th Ed. 2023Solids.Settleable Solids
		Chloride	SMEWW-APHA-AWWA-WEF Part 4500-Cl^- B. 24 th Ed. 2023Chloride. Argentometric Method

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Total Cyanide	SMEWW-APHA-AWWA-WEF Part 4500-CN^- C, F. 24 th Ed. 2023 Cyanide. Total Cyanide After Distillation / Cyanide-Ion Selective Electrode Method.
		Cyanide WAD	SMEWW-APHA-AWWA-WEF Part 4500 - CN- F, I 24 th Ed. 2023 Cyanide. Cyanide-Ion Selective Electrode Method / Weak Acid Dissociable Cyanide
		Free Cyanide	SMEWW-APHA-AWWA-WEF Part 4500-CN- J, E. 24 th Ed. 2023Cyanide. Cyanogen Chloride / Colorimetric Method
		Fluoride	SMEWW-APHA-AWWA-WEF Part 4500 - F- B, C. 24 th Ed. 2023Fluoride. Preliminary. Distillation Step. Ion-Selective Electrode Method
		pH	SMEWW-APHA-AWWA-WEF Part 4500 H^+ B. 24 th Ed. 2023pH Value. Electrometric Method.
		Nitrogen Organic Kjeldahl	SMEWW-APHA-AWWA-WEF Part 4500-Norg C. 24 th Ed. 2023 Nitrogen (Organic). Semi Micro- Kjeldahl Method.
		Ammonia Ammonia Nitrogen	SMEWW-APHA-AWWA-WEF Part 4500-NH_3 D. 24 th Ed. 2023. Ammonia-Selective Electrode method.
		Nitrite (as N-NO_2 or NO_2)	SMEWW-APHA-AWWA-WEF Part 4500 NO_2-B. 24 th Ed. 2023 Nitrogen (Nitrite) Colorimetric Method

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Nitrate (as N-NO_3 or NO_3)	SMEWW-APHA-AWWA-WEF Part 4500-NO_3^- B. 24 th Ed. 2023 Nitrogen (Nitrate). Ultraviolet Spectrophotometric Screening Method.
		Nitrate (as N-NO_3 or NO_3)	SMEWW-APHA-AWWA-WEF Part 4500-NO_3^- D. 24 th Ed. 2023 Nitrogen (Nitrate). Nitrate Electrode Method.
		Total Phosphorus	SMEWW-APHA-AWWA-WEF Part 4500 P-B, E. 24 th Ed. 2023 Phosphorus. Sample Preparation. Ascorbic Acid Method
		Phosphates. PO4-P / PO4	SMEWW-APHA-AWWA-WEF Part 4500-P E. 24 th Ed. 2023. Phosphorus. Ascorbic Acid Method.
		Sulfide	SMEWW-APHA-AWWA-WEF Part 4500-S^{2-} D. 24 th Ed. 2023 Sulfide. Methylene Blue Method.
		Hydrogen Sulfide	SMEWW-APHA-AWWA-WEF Part 4500-S^{2-} G, H. 24 th Ed. 2023 Sulfide. Ion-Selective Electrode Method. Calculation of Un- Ionized.
		Sulfate	SMEWW-APHA-AWWA-WEF Part 4500-$SO4^{2-}$ E. 24 th Ed. 2023 Sulfate. Turbidimetric Methods.
		Biochemical Oxygen Demand	SMEWW-APHA-AWWA-WEF Part 5210 B . 24 th Ed. 2023 Biochemical Oxygen Demand (BOD). 5- Day BOD Test.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Chemical Oxygen Demand	SMEWW-APHA-AWWA-WEF Part 5220 D. 24 th Ed. 2023 Chemical Oxygen Demand (COD). Closet reflux, Colorimetric Method.
		Phenols	SMEWW-APHA-AWWA-WEF Part 5530 B, C. 24 th Ed. 2023 Phenols. Cleanup Procedure. Chloroform Extraction Method.
		SAAM	SMEWW-APHA-AWWA-WEF Part 5540 C. 24 th Ed. 2023 Surfactants. Anionic Surfactants as MBAS.
	Natural Water, Drinking Water, Process Water and Wastewater (Field collection + Lab Testing)	Bromides; Fluorides; Chlorides; Nitrites (as NO_2 or NO_2-N); Nitrates (as NO_3 or NO_3-N); Phosphates (PO_4 or PO_4-P); Sulfates	EPA METHOD 300.0 Determination of Inorganic Anions by Ion chromatography
	Saline water (Field collection + Lab Testing)	Bromides; Fluorides; Chlorides; Nitrites (as NO_2 or NO_2-N); Nitrates (as NO_3 or NO_3-N); Phosphates (PO_4 or PO_4-P); Sulfates	EPA METHOD 300.0 Determination of Inorganic Anions by Ion chromatography (Validated outside scope)
	Process Water	Total Suspended Solids (TSS)	SMEWW-APHA-AWWA WEF Part 2540 D, 24th Ed.2023 Solids. Total Suspended Solids Dried from 103 to 105°C **(Validated)**
	Soil and Sediments (Field collection + Lab Testing)	Free Cyanide	EPA Method 9013 A / SM 4500- CN, F Cyanide Extraction Procedure for Solids and Oils / Cyanide-Ion Selective Electrode Method.
		Moisture Content	PE-980 Moisture Determination.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – INORGANICS (cont'd.)	Soil and Sediments (Field collection + Lab Testing) (cont'd.)	pH (1:1)	PEC-001 Determination of pH
		Conductivity (1:1)	PEC-002 Determination of Electrical Conductivity.
	Soil, Sediments and Sludges (Field collection + Lab Testing)	Add Elements: Al, Ag, B, Ba, Bi, Ca, Ce, Cu, Hg, Li, Sb, Si, Sn, Na, Sr, K, Mg, Mn, Mo, Ni, P, Ti, Th, U, V, W, Zn (Validated). Total: As, Be, Cd, Co, Cr, Fe, Pb, Se, Tl	EPA 6020B / EPA 3050B Inductively Coupled Plasma-Mass Spectrometry/ Acid Digestion of Sediments, Sludges, and Soils.
		Total Cyanide	EPA 9013 A / PP-220 Cyanide extraction Procedure for Solids and Oils / Free and Total Cyanides in Waters by a Segmented Flow Analyzer.
		Chromium VI	PP-205 Determination of Chrome Hexavalent in soils, sludge and sediments. Digestion based on DIN EN 15192.
	Soil and Sludges (Field collection + Lab Testing)	Total Solids	Protocol of Methods of Analysis for Soil and Muds 2. (2007) Water and Total Solids.
		Volatile Solids	Protocol of Methods of Analysis for Soil and Muds 3. (2007) Water and Total Solids.
ENVIRONMENTAL - INORGANICS + SAMPLING	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing)	Oxygen Dissolved 'in situ'	EPA 360.1 Oxygen, Dissolved (Membrane Electrode)
		"In Situ" Free Residual Chlorine, "In Situ" Total Chlorine	PPI-206 Chlorine Determination: Free Residual, Total Based on SMEWW 4500 Cl G.
		Conductivity 'in Situ'	SMEWW-APHA-AWWA-WEF Part 2510 B. 24 th Ed. 2023. Conductivity Laboratory Method.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Temperature 'in Situ'	SMEWW-APHA-AWWA-WEF Part 2550 B. 24 th Ed. 2023. Temperature. Laboratory and Field Methods.
		pH 'in Situ'	SMEWW-APHA-AWWA-WEF Part 4500 H^+ B. 24 th Ed. 2023. pH Value. Electrometric Method.
	Air (Field collection + Lab Testing) And (only lab testing)	NO_2 (gaseous)	ASTM D1607 – 91 (Reapproved 2018) Standard Test Method for Nitrogen Dioxide Content of the Atmosphere (Griess-Saltzman Reaction).
		NOX (Nitrogen oxides)	ASTM D3608-19 Nitrogen Oxides (Combined) content in the Atmosphere by the Griezz-Saltzman Reaction (Validated)
		SO_2 (gaseous)	EPA 40 CFR - Chapter I - Title 40 - Appendix A-2 to Part 50. Reference Method for the Determination of Sulfur Dioxide in the Atmosphere (Pararosaniline Method).
		Metals: Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EPA - Compendium Method IO - 3.4 Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma Spectroscopy (ICP-OES).
		PM10 High Volume	NTP 900.030 Air quality. Reference Method for the Determination of Respirable Particulate Matter as PM10 in the Atmosphere.
		O3 (gaseous)	PP-201 Determination of Ozone (03) in Atmosphere.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Air (Field collection + Lab Testing) And (only lab testing) (cont'd.)	CO (gaseous)	PP-202 Carbon Monoxide (CO) in Atmosphere.
		H_2S (gaseous)	PP-203 Determination of Hydrogen Sulfide (H2S) In Atmosphere.
		PM 2.5 High Volume	PP-209 Determination of Breathable Particulate Matter as PM2.5 in the Atmosphere.
		Total Hg (gaseous)	PPI-512/ PP-233 Sampling of Total Gaseous Mercury in Atmosphere Based on Mercury.Method: 6009, Issue 2 /Total Gaseous Mercury in Atmosphere Based on Mercury.Method: 6009, Issue 2.
	Air / filter (Only Lab Testing)	Determination of Weight in PM10 low Volume Filter	NTP 900.030 Air quality. Reference Method for the Determination of Respirable Particulate Matter as PM10 in the Atmosphere.
		Determination of Weight in PM2.5 low Volume Filter	NTP 900.069 Air quality. Reference Method for the determination of fine particulate matter as PM2.5 in the atmosphere.
		Metals in PM10 Filter Low Volume: Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EPA- Compendium Method IO - 3.4 Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma Spectroscopy (ICP-OES). (Validated)
		Metals in PM2.5 Filter Low Volume: Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EPA- Compendium Method IO - 3.4 Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma Spectroscopy (ICP- OES). (Validated)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Filter (Only Lab Testing)	Determination of Weight in PM10 and PM2.5 High Volume Filter	NTP 900.030 Air quality. Reference Method for the Determination of Respirable Particulate Matter as PM10 in the Atmosphere (Validated)
	Stationary Emission Source Stationary Emission Source (cont'd.)	Particulate Matter	EPA Method 5 Determination of Particulate Matter Emissions from Stationary Sources. (Only laboratory process).
		Sulfur Dioxide (SO_2)	EPA Method 6 Determination of Sulfur Dioxide Emissions from Stationary Sources (only laboratory process).
		Determination of total reduced sulfur (TRS)	EPA Method 16A Stationary emission source: Determination of total reduced sulfur (TRS) emissions from stationary sources - impinger technique (only laboratory process).
		O_2, CO, CO_2, SO_2, NO, NO_2 and NOX	Determination of O_2, CO, CO_2, SO_2, NO and NO_2 concentration by an automatic analyzer based on EPA CTM 022/ EPA CTM 030. (Field collection + Lab Testing)
		Metals: Ag, As, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, P, Pb, Sb, Se, Tl, , Zn.	EPA-40 CFR, Appendix A-8 to Part 60. Method 29. Determination of Metals Emissions from Stationary Sources.
		Metals: V	EPA-40 CFR, Appendix A-8 to Part 60. Method 29. Determination of Metals Emissions from Stationary Sources. (Validated)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Stationary Emission Source (cont'd.)	Total Reduced Sulfur (TRS) / Hydrogen Sulfide (H_2S)	EPA CFR Title 40, Chapter I, Subchapter C, Part 60, Appendix A–6, Method 16A. 2017. Determination of Total Reduced Sulfur Emissions from Stationary Sources (Impinger Technique)
		Sulfur Dioxide (SO_2)	NTP 900.006. 2021 Determination of Sulfur Dioxide Emissions in Stationary Sources. 2nd Edition.
		Nitrogen Oxides (NOx)	EPA CFR Title 40, Chapter I, Subchapter C, Part 60, Appendix A–4, Method 7E. 2020. Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)
		Volatile Organic Compounds (VOCs)	NTP 900.018. 2021 Measurement of Gaseous Organic Compound Emissions by Gas Chromatography. 2nd Edition.
		Oxygen Carbon Dioxide	EPA METHOD 3A. Determination of Oxygen and Carbon Dioxide concentrations in emissions from stationary sources (instrumental analyzer procedure)
		Sulfur Oxides (SOx)	EPA Method 8 (EPA CFR Title 40, Chapter I, Subchapter C, Part 60, Appendix A-4, 2019). Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources (Validated – Modified).

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Stationary Emission Source (cont'd.)	Sulfuric Acid: including: Sulfuric acid (H_2SO_4) mist Sulfur trioxide (SO_3)	EPA Method 8 (EPA CFR Title 40, Chapter I, Subchapter C, Part 60, Appendix A-4, 2019). Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
		Sulfur Dioxide (SO_2)	EPA Method 8 (EPA CFR Title 40, Chapter I, Subchapter C, Part 60, Appendix A-4, 2019). Determination of Sulfuric Acid Mist and Sulfur Dioxide Emissions from Stationary Sources
		Nitrogen oxides (NO_X)	NTP 900.007:2021: Atmospheric Emissions Monitoring. Determination of Nitrogen Oxide Emissions from Stationary Sources.
		Nitrogen oxides (NO_X)	EPA Method 7 (2nd Edition): Atmospheric Emissions Monitoring. Determination of Nitrogen Oxide Emissions from Stationary Sources.
	Air/ Filter (Only lab testing) and (Field collection + Lab Testing)	Metals in PM 10 (low volume) Al, As, Ag, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EPA/625/R-96/010a Compendium Method IO3.5 June 1999. Compendium Method IO-3.5. Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/Mass Spectrometry (ICP/MS. Validated - modified)
		Metals in PM 2.5 (low volume) Al, As, Ag, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Hg, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Si, Sn, Sr, Ti, Tl, U, V, Zn	EPA/625/R-96/010a Compendium Method IO3.5 June 1999. Compendium Method IO-3.5 Determination of Metals in Ambient Particulate Matter Using Inductively Coupled Plasma/ Mass Spectrometry (ICP/MS. Validated - modified)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL - INORGANICS + SAMPLING (cont'd.)	Air	Particulate Matter (PM10, PM2.5)	UNE-EN 16450:2017 Ambient air Automatic measurement systems for measuring the concentration of particulate matter (PM10; PM2.5)
	Air	Settleable Particulate Matter	ASTM D1739-98 (Reapproved 2017) Standard Test Method for Collection and Measurement of Dust fall (Settleable Particulate Matter)
ENVIRONMENTAL - SAMPLNG	Vibrations	vibrations	DIN 4150 Vibrations in Buildings - Part 3: Effects on structures, English translation of DIN 4150-3:2016-12
ENVIRONMENTAL – MICROBIOLOGY	Natural Water, Drinking Water, Saline Water, Process Water, wastewater (Field collection + Lab Testing)	Giardia, Helminth eggs parasites, Protozoan Cyst Parasites Helminth Larvae Helminth eggs and larvae, cysts and oocysts of pathogenic protozoa.	OMS. Wastewater analysis for agricultural use. Manual of parasitological and bacteriological laboratory techniques, Item 2.1 Bailenger Method. 1996.(Validated Modified) (Validated outside scope-except for wastewater)
	Natural Water, Drinking Water, Saline Water, Process Water and Wastewater (Field collection + Lab Testing)	Fecal Coliform or Fecal Thermotolerant	PE-403 Fecal (Thermotolerant) Coliform Count in Waters (Membrane Filtration).
		Heterotrophic bacteria	SMEWW-APHA-AWWA-WEF Part 9215 A,B.24 th Ed. 2023 35°C/48h, Agar plate count. Heterotrophic Plate Count. Pour Plate Count Method.
		Total Coliform	SMEWW-APHA-AWWA-WEF Part 9221 B. 2,3,4,5a (1,3,4), 5b. 24 th Ed. 2023 Multiple -Tube Fermentation Technique for Members of the Coliform Group. Standard Total Coliform Fermentation Technique.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – MICROBIOLOGY ((cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Thermotolerant (Fecal) Coliform	SMEWW-APHA-AWWA-WEF Part 9221 B.2,3, E.1 24 th Ed. 2023 Multiple -Tube Fermentation Technique for Members of the Coliform Group. Thermotolerant (Fecal) Coliform Procedure.
		Escherichia Coli	SMEWW-APHA-AWWA-WEF Part 9221 B.2,3, F.1 24 th Ed. 2023 Multiple -Tube Fermentation Technique for Members of the Coliform Group. Escherichia Coli Procedure Using Fluorogenic Substrate.
		FecalEntererococcus	SMEWW-APHA-AWWA-WEF Part 9230 B. 24 th Ed. 2023Fecal Enterococcus / Streptococcus Groups. Multiple Tube Technique.
		Salmonella spp	SMEWW-APHA-AWWA-WEF Part 9274 B 1d,3(a , c), 5,6 and 7. 24 th Ed. 2023 Salmonella. Detection Methods
		Vibrio cholerae	SMEWW-APHA-AWWA-WEF Part 9278 24 th Ed. 2023 Vibrio
		ZooplanktonCounting	SMEWW-APHA- AWWA-WEF Part 10200 C.2, G. 24 th Ed. 2023Plankton. Concentration Techniques. Sedimentation. Zooplankton Counting Techniques
		Free Living Organisms (OVL) Zooplankton Counting + Phytoplankton Counting	SMEWW-APHA- AWWA-WEF Part 10200 C.2, F.2.c.1. / SMEWW-APHA-AWWA-WEF Part 10200 C.2, G. 24 th Ed. 2023Free Living Organisms (OVL)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Natural Water, Drinking Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing) (cont'd.)	Phytoplankton Counting	SMEWW-APHA-AWWA-WEF Part 10200 C.2 F.2. (a,c1) 24 th Ed. 2023 Plankton. Concentration Techniques. Sedimentation. Phytoplankton Counting Techniques
		Periphyton Counting	SMEWW-APHA-AWWA-WEF Part 10300 C.1,2. 24 th Ed. 2023Periphyton. Sample Analysis.
		Periphyton Identification of Aquatic Organisms	SMEWW-APHA- AWWA-WEF Part 10300 C.1, 2. / Part 10900. 24 th Ed. 2023Periphyton. Sample Analysis/ Identification of aquatic organisms.
		Zooplankton Identification of Aquatic Organisms	SMEWW-APHA-AWWA-WEF Part 10020 C.2, G / Part 10900. 24 th Ed. 2023Identification of Aquatic Organisms
		Phytoplankton Identification of Aquatic Organisms	SMEWW-APHA-AWWA-WEF Part 10020 C.2, F.2.c.1 / Part 10900. 24 th Ed. 2023 Identification of Aquatic organisms
	Natural Water, Saline Water, Process Water and Wastes Water (Field collection + Lab Testing)	Escherichia coli and Coliform Bacteria	UNE-EN ISO 9308-1:2014 /A1:2017 Water quality - Enumeration of Escherichia coli and coliform bacteria - Part 1: Membrane filtration method for waters with low bacterial background flora (Validated)
	Drinking Water (Field collection + Lab Testing)	Escherichia coli and Coliform Bacteria	UNE-EN ISO 9308-1:2014 /A1:2017 Water quality - Enumeration of Escherichia coli and coliform bacteria - Part 1: Membrane filtration method for waters with low bacterial background flora.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Drinking Water (Field collection + Lab Testing) (cont'd.)	Pseudomonas Aeruginosa	SMEWW-APHA-AWWA-WEF Part 9213 F. 24 th Ed. 2023 .Multiple-Tube Technique por Pseudomonas Aeruginosa
	Natural Water, Saline Water, (Field collection + Lab Testing)	Nekton	SMEWW-APHA-AWWA-WEF Part 10600 D.1 24 th Ed. 2023 Fishes. Analysis of Collections.
	Natural Waters, Drinking Waters (Field collection + Lab Testing)	Detection of Virus; Somatic Coliphage Assay	SMEWW-APHA-AWWA-WEF Part 9224 B.23 rd. Ed.2017 Detection of Virus; Somatic Coliphage Assay
	Natural Water and Wastes Water (Field collection + Lab Testing)	Detection of Salmonella spp.	UNE-EN-ISO 19250.8.1, 8.2.2, 8.3, 8.4, 8.5, 9. Water quality - Detection of Salmonella spp.
	Sludge	Salmonella spp	NOM-004-SEMARNAT-2002 Method for the quantification of Salmonella spp., in sludge and biosolids
	Sludge and Biosolids	Viable Helminth Eggs	PP-329 Determination of Viable Helminth Eggs
	Swabbing of Living and Inert Surfaces (Field collection + Lab Testing)	Total coliform and Escherichia coli Count	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/AOAC 991.14 Total coliform and Escherichia coli Count
		Enumeration of Yeast and Mold	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/FDA BAM On line Chap 18. B.1 Enumeration of Yeast and Mold
		Detection of Salmonella spp	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/ISO 6579-1:2017 / Amd 1:2020 Detection of Salmonella spp

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
ENVIRONMENTAL – MICROBIOLOGY (cont'd.)	Swabbing of Living and Inert Surfaces (Field collection + Lab Testing) (cont'd.)	Coagulase Positive: Staphylococci Count (*Staphylococcus aureus* and others)	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/ISO 6888-1:2021/Amd 1:2023 Coagulase Positive: Staphylococci Count (*Staphylococcus aureus* and others)
		Escherichia coli Count	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/ISO 16649-2:2001 Escherichia coli Count
		Colony Count at 30°C (UFC/superficies)	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/UNE-EN ISO 4833-1:2014/Amd 1:2022 Colony Count Techniques at 30°C, Horizontal Method for the Enumerations of Microorganisms
		Detection of Listeria Monocytogenes	ISO 18593 punto 9.2 (1, 2,4)/RM N°461-MINSA 8.2, 8.4/UNE-EN ISO 11290-1:2018, Detection of Listeria Monocytogenes
	Sediments (marine, epicontinental and estuarine) (Field collection + Lab Testing)	Benthic Macroinvertebrates Counting	SMEWW 10500 C1.2. 24 th Ed. 2023 Benthic Macroinvertebrates. Sampling Processing and Analysis.
FOOD-ORGANIC-PESTICIDES	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices	2,4 D ,Ortofenil Fenol (OPP), Acetacloro,Acrinatrina, Alacloro, Aldrin (SP), Atrazina, Benalaxil (SP), Benfluralina,Bifenazato (SP), Bifenilo, Bifentrina, Bitertanol, Bromofos Metil, Bromopropilato, Bupirimato, Carbofenotion, Ciflutrin, Cipermetrina, Ciproconazol, Ciprodinil, Clordano cis, Clordano trans, Clorfenapir, Clorfenvinfós, Cloropropilato, Clorpirifos, Clorpirifos Metil, Clorprofam, Clortal Dimetil, Cyhalotrin-L, DDD-pp + DDT-op, Diazinon, Diclobenilo, Diclorán, Dicofol, Dieldrin (SP),	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Difenilamina, Difenoconazol, Diflufenicán, Diniconazol, Disulfotón (SP) , Disulfotón sulfona, Disulfotón sulfoxido, Endosulfan Alfa, Endosulfan Beta, Endosulfan Sulfato, Etion, Etofumesato (SP), Etoprofos, Fenarimol, Fenazaquina, Fenitrotión, Fenpropatrin, Fention (SP), Fentoato, Fenvalerato + Esfenvalerato, Flucitrinato, Fonofos, Fosalón, Hexaclorobenceno, Iprodiona, Iprovalicarb, Isazofos, Isofenfos, Isofenfos Metil, Kresoxim Metil, Malation (SP), Mepronilo, Metacrifós, Metalaxil (SP), Metidatión, Metoxicloro, Metribuzina, Mevinfos, Miclobutanil, Mirex, Molinato, Napropamida, Nuarimol, Ofurace, Oxadixilo, Oxifluorfen, pp-DDE, pp- DDT, Paration Etil, Paration Metil (SP), Penconazol, Pendimetalina, Pentacloroanilina, Pentacloroanisol, Pentaclorobenceno, Permetrina, Pirazofos, Piridabén, Piridafention, Pirifenox, Pirimetanil, Pirimicarb (SP), Pirimifos Etil, Pirimifos Metil, Piriproxifén, Procimidona, Profenofós, Profluralin, Propargita, Propizamida, Protiofós, Quinalfós, Quintoceno, Simazina, Tebuconazol, Tebufenpirad, Tecnaceno, Teflutrin, Terbacil, Terbutilazina, Terbutrin, Tetraconazol, Tetradifón, Tetrametrina, Tiometon, Tolclofos Metil, Transflutrin, Triadimenol (SP), Triazofos, Trifluralina, Vinclozolina (SP), 2,4-DDD, 2,4-DDE, 4,4Dicclorobenzofenona, Ametrina, Buprofezin, Carbosulfan, Clorbenzilat, Clorfenson, Clormefos, Clorotalonil, Clortoluron, Clozolinato, DEET, Deltametrina, Diafentiuron, Diclobutazol, Diclofention, Dicrotofos, Endrin, EPNC, Etrimfos, Fenclorfos, Fenoxicarb, Fention sulfon, Fention Sulfoxido, Fluazifop-Butil, Fluopicolide, Fluopiram,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Fluotrimizol, Folpet, Formotion, Fosfamidon, Ftalamida (Folpet), Furalaxil, Heptacloro (SP),Hexaconazol, Lindano, Naled, Paraoxon Metil, Procloraz (SP), Procloraz (suma), BTS 44595, BTS 44596, Prometrina, Propaclor, Terbumeton, Tetraclorvinfos, Tetrahidroftalamida (Captan), Triadimefon (SP), Dieldrin (SUM), DDT (SUM), Disulfutón (SUM), Endosulfan (SUM), Folpet (SUM), Quintoceno (SUM), Paration Metil (SUM), Clordano, Triadimefon y Triadimenol. Abamectina, Acetamiprid, Aldicarb, Aldicarb Sulfona, Aldicarb Sulfoxido, Azoxistrobina, Bendiocarb, Bentiavalicarb,Boscalida, Bromuconazol, Butoxicarboxim, Cadusafos, Carbaril, Carbofuran (SP), Ciazofamida,Cimoxanilo, Clofentezina,Clomazona, Clorantranilliprole, Clotianidin, Oxidemetón- metilo (SP), Demeton-S- Metil (SP), Desmedifam, Diclormid,Dietofencarb, Diflubenzuron,Dimetoato (SP), Dimetomorf, Dodemorfo,Dodina, Epoxiconazol, Espinetoram, Espinosad, Espirodiclofeno, Espiromesifeno, Espirotetramat (SP), Espirotetramat-enol, Espirotetramat (suma), Espiroxamina,Etiofencarb, Etiprol, Etofenprox, Etoxazol, Famoxadona, Fenamidona, Fenamifos (SP), Fenbuconazol, Fenhexamida, Fenmedifan, Fenmedifan, Fenpiroximato, Fenpropidin (SP), Fenpropimorfo, Fensulfotion, Flonicamid (SP), Fludioxonilo, Flufenacet, Flufenoxuron, Fluometuron, Fluquinconazol, Flusilazol, Flutolanil, Flutriafol, Forato, Forato Sulfona, Forato Sulfoxido, Forclorfenuron, Fostiazato, Furatiocarb, Hexaflumuron, Hexitiazox, Imazalil,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Imidacloprid, Indoxacarb, Isocarbofos, Isoproturón, Isoxabén, Lenacilo, Linurón, Mandipropamid, Mecarbam, Mepanipirim, Metaflumizona, Metamitrona, Metazacloro, Metil Tiofanato (SP), Metiocarb (SP), Metolacloro, Metolcarb, Metomilo (SP), Metoxifenoxida, Metoxuron, Metrafenona, Monocrotofós, Monolinurón, Nitenpiram, Novalurón, Ometoato, Oxadiargilo, Oxadiazón, Oxamilo, Oxicarboxina, Paclobutrazol, Pencicurón, Picoxistrobina, Piraclostrobina, Profam, Propamocarb (SP), Propanil, Propaquizafop, Propiconazol, Propoxur, Proquinazid, Prosulfocarb, Quinoxifen, Quizalofop- Ethyl (SP), Rotenona, Sulfotep, Tebufenocida, Teflubenzurón, Terbufos, Tiabendazol, Thiametoxam (SP), Tiacloprid, Tiodicarb (SP), Tridemorfo, Trifloxystrobin, Triflumizol (SP), Triflumurón, Zoxamida, Acefato, Acequinocyl, Amitraz, Azadiractina, Azametifos, Azimsulfurón, Azinfos Etil, Azinfos Metil, Benomilo- Carbendazima, Bentazona Metil, Bentazona (SP), Bioaletrina, Bromacilo, Butacloro, Butralina, Carbofuran-3- Hidroxi, Carboxim, Carfentrazona Etil, Cicloato, Cicloxidim (SP), Ciflufenamida, Cihexatina, Ciromazina, Clorfluazuron, Cloridazon, Cyantraniliprole, Demeton S Metil sulfona, Dialifos, Diclorvos, Diclofop Metil, Dinocap (SP), Dinotefuram, Diuron, DNOC, Emamectina Benzoato, Espirotetramat- Cis-ketohidroxi, Espirotetramate-Enol- Glucoside, Espirotetramate-Monohidroxi, Etiofencarb sulfóxido, Ethirimol, Etoxiquina, Fenbutatín Óxido, Fenobucarb, Fenpirazamina, Fipronil (SP), Flazasulfuron, Fluacinam,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Flubendiamida, Flumioxazina, Formetanato, Fosmet (SP), Haloxyfop-2- Ethoxyetil, Indaziflam, Matrine, Metamidofos, Metiocarb sulfona, Metiocarb sulfóxido, Orizalin, Oxymatrine, Pentiopirad, Pimetrocina, Piridato, Promecarb, Rimsulfuron, Saflufenacil, Sulfoxaflor, Terbufos sulfona, Terbufos sulfóxido, Tiobencarb, Tiociclam, Tolilfluanida (SP), Triclorfon, Triciclazol, Triforina, Aldicarb (SUM), Dimetoato (SUM), Metiocarb (SUM), Forato (SUM), Oxidemetón-metilo (SUM), Carbofuran (SUM), Metomilo (SUM), Thiametoxan (SUM) BAC nC-08, BAC nC-10, BAC nC-12, BAC nC-14, BAC nC-16, BAC nC-18, DDAC nC-08, DDAC nC-10, DDAC nC-12, DDAC nC-14	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)
	Fruits, Vegetables, Grains and Cereals	Fosetil; Clorato; Etefon; Perclorato; Acido Fosfónico + Sales; Fosetil-Al(Suma).	PE-690 Polar pesticides in food-Fruits and vegetables, by LC-MS/MS.
	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices	Glyphosate, Glufosinate and Aminoethylphosponic acid (AMPA)	PE-681 Determination of Glyphosate, Glufosinate and AMPA in Fruit and Vegetables by LC/MS-MS Chromatography
	Meats, fish and seafood, fruits, vegetables, and fruit juice, milk and milk, derivatives, oil, cereals and flour, fish flour	Total: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, B, Fe, Li, Sn, Sr, Ti, V, Zn	PE-324 Determination of Total elements in food by spectroscopy ICP-MS.
FOOD-INORGANIC	Processed and Unprocessed Foods	Total Fat	PE-356 Determination of Total Fat in Foods
		Protein	PE-987 Determination of Protein by Elemental Analyzer in Food and Feed

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-INORGANIC (cont'd.)	Processed and Unprocessed Foods (cont'd.)	Moisture	PE-345 Determination of Moisture in Food
		Ash	PE-355 Determination of Ashes in Food and Feed by Gravimetry
		Metals (Ca, Na, K, Mg, Fe)	PP-286 Determination of Majority Elements in Foods By ICP-MS Spectroscopy
FOOD-ORGANIC	Processed and Unprocessed Foods, cereals and grains	Micotoxins (AFLATOXIN B1, AFLATOXIN B2, AFLATOXIN G1, AFLATOXIN G2) Sum of Aflatoxins Ochratoxin A	PE-505 Mycotoxins by Liquid Chromatography.
FOOD-INORGANIC	Fresh and Processed Foods and Beverages	Sulfites	PP-407 Determination of Sulfites in Foods. Optimized Monier-Williams Method
	Processed and Unprocessed Foods	Dithiocarbamates	PP-415 Determination of Dithiocarbamates in Fruits and Vegetables by Gas Chromatography
FOOD-MICROBIOLOGY	Food	Colony Count Techniques at 30°C, Horizontal Method for the Enumerations of Microorganisms (Aerobics mesophylls)	UNE-EN ISO 4833-1:2014/Amd 1:2022 Colony Count Techniques at 30°C, Horizontal Method for the Enumerations of Microorganisms
	Food and Processed Food, Prepared Food, flour	*Salmonella spp*	ISO 6579-1:2017 / Amd 1:2020 Detection of Salmonella spp. Horizontal Method for the Detection of Salmonella spp. 37°C
		Staphylococcus aureus and others	ISO 6888-1:2021/Amd 1:2023 Microbiology of the food chain – Horizontal method for the enumeration of coagulase-positive staphylococci (*Staphylococcus aureus* and

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-MICROBIOLOGY (cont'd.)	Food and Processed Food, Prepared Food, flour (cont'd.)	*Staphylococcus aureus* and others (cont'd.)	other species), Part 1: Method using Baird-Parker agar medium Amendment 1
		Bacillus cereus presumptive	ISO 7932:2004/Amd 1:2020 Horizontal method for the enumeration of presumptive Bacillus cereus – Colony-count technique at 30°C
		Escherichia coli	ISO 16649-2:2001 Microbiology of food and animal feeding stuffs – Horizontal method for the enumeration of beta-glucuronidase-positive Escherichia coli – Part 2: Colony-count technique at 44 degrees C using 5-bromo-4- chloro-3indolyl beta-D- glucuronide
		Total Coliform Count	AOAC 991.14 Total Coliform Count
		Listeria Monocytogenes	UNE-EN ISO 11290-1:2018 Detection and Enumeration of Listeria Monocytogenes. Part 1: Detection Method
		Yeast and Mold	ICSMF. 2nd Edition. Vol 1, Part II. Mold and Yeast count. Yeast and Mold count method
	Fruits, Vegetables, Cereals	Listeria monocytogenes	AOAC Official Method 2013.11. Listeria monocytogenes in a Variety of Foods. VIDAS® Listeria monocytogenes Xpress (LMX) Method (Validated).
		Salmonella spp	AOAC Official Method 2013.01. Salmonella in a Variety of Foods VIDAS® UP Salmonella (SPT) Method. (Validated)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-MICROBIOLOGY (cont'd.)	Processed Food, Prepared Food	Escherichia coli 0157:H7	AOAC RI Performance Tested N°060903 (Validated) -VIDAS. Detection of Escherichia coli 0157:H7
		Listeria spp	AOAC Official Method 2013.10. Detection of Listeria spp.
AGRONOMIC – INORGANIC	Foliage	Total Nitrogen	PEC-034 Determination of Dumas Nitrogen.
	Fruits, Stems, Roots, Flowers, Foliage	Total: B, Ca, Cu, Mg, Mn, K, Na, Zn, P, Fe	PEC-009 Determination of metals by plasma emission spectrophotometry
		Chloride	PE-336 Ammonium, Chloride, TON and Alkalinity by flow analyzer segmented continued.
		Dry Matter	PEC-022 Determination of moisture, dry matter and total solids in fertilizers ,soils, sediments, sludges and plant matter
	Fruits	Total Nitrogen	PEC-034 Determination of Dumas Nitrogen.
		Total Calcium	PE-2079 Determination of fractions of Calcium in plant tissues.
	Irrigation Water, Soil Solution	Chloride, Nitrate	PE-336 Ammonium, Chloride, TON and Alkalinity by flow analyzer segmented continued.
		Conductivity	PEC-002 Determination of electrical conductivity.
		B, Ca, Cu, Mg, Mn, K, Na, Zn, P, Fe	PEC-009 Determination of Metals by ICP- OES.

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
AGRONOMIC – INORGANIC (cont'd.)	Irrigation Water, Soil Solution (cont'd.)	Alcalinity	PEC-011 Alkalinity in Water
	Saturated Paste Extract (EPS) in Agricultural Soil	Chloride, Nitrate, Ammonium	PE-336 Ammonium, Chloride, TON and Alkalinity by flow analyzer segmented continued
		pH	PEC-001 Determination pH by Saturated Pasta Extract (EPS) in agricultural soil
		Conductivity	PEC-002 Determination of electrical conductivity
		B, Ca, Cu, Mg, Mn, K, Na, Zn, P, Fe	PEC-009 Determinationof metals by plasma emission spectrophotometry
		Bicarbonate	PEC-001/PEC-011 Saturated Pasta Extract (EPS) Alcalinity in Water
	Vegetables	Total Nitrogen	PEC-034 Determination of Nitrogen Dumas
		Metals: Ca, Mg, Na, K, Fe, Mn, Cu, Zn, Mo, P and B	PEC-009 Determination of metals by plasma emission spectrophotometry
	Agricultural Soil	Available Bases: Available Calcium, Available Potassium, Available Magnesium, Available Sodium	PEC-009 Determination of metals by plasma emission spectrophotometry
		Bases of Change: Calcium Change, Potassium Change, Magnesium Change, Sodium Change	PEC-009 Determination of metals by plasma emission spectrophotometry
		Iron (DPTA), Manganese (DPTA) Copper (DPTA), Zinc (DPTA)	PEC-009 Determination of metals by plasma emission spectrophotometry
		Active Limestone	PEC-014 Determination of Active limestone

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
AGRONOMIC – INORGANIC (cont'd.)	Agricultural Soil (cont'd.)	Cation Exchange Capacity (CEC)	PEC-019 Determination of Cation Exchange Capacity (CEC)
		Available Phosphorus	PE-2125 Olsen Phosphorus by Induced Coupled Plasma Optic Emission Spectroscopy (ICP-OES)
		Textural Class: Textural Class, Clay, Sand, Silt	PE-2127 Determination Textural
		Electrical conductivity (Extract 1/1)	PE-2128 Determination of pH and EC in Soil Extracts
		pH (Extract 1/1) pH (Extract 1/2.5)	PE-2128 Determination of pH and EC in Soil Extracts
		Total Organic Matter	PE-2129 Determination Organic Matter in Soils by Elementary Analyzer
	Fertilizers -Organic and Inorganic	pH pH (Extract 1/10)	PEC-001 pH Determination
		Electrical Conductivity	PEC-002 Determination of Electrical Conductivity
		Total Metals: Ca, Mg, Na, K, Fe, S, Mn, Cu, Zn, Mo, P and B	PEC-009 Determination of metals by plasma emission spectrophotometry
		Magnesium oxide, Phosphorous Oxide, Potassium oxide,	PEC-009 Determination of metals by plasma emission spectrophotometry
		Total Organic Carbon	PEC-012 Determination of Matter Total Organic
		Total Organic Matter	PEC-012 Determination of Matter Total Organic
		Total Nitrogen	PEC-034 Determination of Nitrogen Dumas

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
AGRONOMIC – INORGANIC (cont'd.)	Fertilizers -Organic and Inorganic (cont'd.)	Total Metals: As, Cd, Cr, Sn, Hg, Pb	PP-257 Metals in fertilizers and Chemical substances by ICP-MS
		Total Metals: Ag, Al, As, B, Ba, Be, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, Sb, Se, Sn, Tl, Ti, V, Zn, S.	PP-281 Determination of Metals in Fertilizers by Plasma Emission Spectrophotometry
MINING – GEOCHEM	Samples Minerals	Aqua Regia Digestion: Multi-Element Analysis: Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, Ga, Hg, In, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Se, Sn, Sr, Ti, Tl, V, W, Zn	PE-4041/PE-4042 Disintegration of mineral samples. Acid Digestion and Alkaline Mergers / Determination of metals in minerals by spectrophotometry of emissions by coated plasma induced (ICP- OES).
		Digestion Four Acids: Multi-Element Analysis (Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, La, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sc, Sn, Sr, Ti, V, W, Zn	PE-4041/PE-4043 Disintegration of mineral samples. Acid Digestion and Alkaline Mergers /Determination of metals in minerals by spectrophotometry of emissions by coated plasma induced (ICP-OES).
	Rock, Rock Chip, Drill Core, Soil, Sediment, Sample Pulp, Samples Minerals	Total Sulphate	PE-4005 Total Sulfate in Minerals and Lixiviated Solutions.
		Aqua Regia Digestion: Multi-Element Analysis: Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sn, Sr, Ti, Tl, V, Zn 4 Acid Digestion: Multi-Element Analysis: Ag, Al, As, Ba, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Sn, Sr, Ti, Tl, V, Zn	PE-4006 Metals in Minerals by Plasma Emission Spectrophotometry (ICP / OES)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
MINING – GEOCHEM (cont'd.)	Rock, Rock Chip, Drill Core, Soil, Sediment, Sample Pulp, Samples Minerals (cont'd.)	Gold and Silver	PE-4007 / PE-4008 Sample Preparation Fire Test / Determination of Au and Ag By Spectrophotometry of Atomic Absorption
		Copper	PE-4009 Cooper in Bullons. Volumetric Methods
		Zinc	PE-4010 Zinc in Bullons. Volumetric Methods
		Lead	PE-4011 Lead in Bullons. Volumetric Methods
		Iron	PE-4012 Iron in Bullons. Volumétric Method
		Total Sulphide	PE-4016 Sulfur by Calculation Total Sulphide
		Cu, Pb, Fe, Zn, Ag	PE 4026 Determination of Metals by Atomic Absorption Spectrophotometry.
		Copper - H_2SO_4 soluble	PE 4030 Soluble Copper in Sulfuric Acid by Atomic Absorption.
		Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Sn, Sr, Ti, Ta. V, Zn.	PE-4047 Dold Sequential Extraction for Metal Separation in Solid Samples.
		Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Si, Sn, Sr, Ti, U, V, Zn	PE-4401/ EPA 6020B Toxicity Characteristic Leaching Procedure (TCLP). EPA Method 1311.
		NeutralizationPotential	PE-4402 Neutralization Potential (NP). Method of Sobek.
		Lawrence NeutralizationPotential	PE-4403 Neutralization potential (NP). Modification Lawrence & Wang

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
MINING – GEOCHEM (cont'd.)	Rock, Rock Chip, Drill Core, Soil, Sediment, Sample Pulp, Samples Minerals (cont'd.)	Metal present in water soluble Interchangeable ions Metal associated with carbonates. Metal associated with manganese oxides and amorphous iron (Fe, Mn Oxam). Metal bound to crystalline iron oxides (Fe Oxicryst) Metals in sulfides Remaining metal not extracted at earlier stages as silicate resistant phases.	PE 4406 Leinz Sequential Extraction for Separation of Metals In Samples Solid.
		Carbonate	PE-327 Determination of carbonates by the Bernard Calcimeter method.
		Available Phosphorous (Olsen modified). Available Phosphorous Olsen	NOM-021-SEMARNAT-2000. Item 7.1.10 method AS-10 (Validated modified)
		Bases available (Ca, K, Mg, Na)	NOM-021-SEMARNAT-2000. Item 7.1.12 method AS-12 (Validated modified)
		Bases of Change (exchangeable cations Ca, K, Mg, Na)	NOM-021-SEMARNAT-2000. Item 7.1.12 method AS-12 (Validated modified)
		Total Nitrogen	PP-400 Determination of Nitrogen Dumas
		Texture: Clay, Sand, Silt	PEC-018 Texture determination.
		Cation exchange capacity (CEC)	PEC-019 Determination of cationic exchange capacity (CIC)
		Base saturation percentage (exchange bases)	PEC-020 Determination of % base saturation (change elements)
		Changeable aluminum	NOM-021-RECNAT-2000. Item 7.3.29, AS-33 (Validated modified)
		Maximum Potential Acidity (MPA) Net Neutralizing Potential (NNP) Neutralization Potential Ratio	PE-4407 European Ratio Pronor Potential of Neutralization.
		Total Sulfur	PE-4408 Elemental Analyzers
		Fizz Rating	PE-4409 Fizz Rating

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
MINING – GEOCHEM (cont'd.)	Rock, Rock Chip, Drill Core, Soil, Sediment, Sample Pulp, Samples Minerals (cont'd.)	Ag, Al, As, B, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Na, Ni, P, Pb, S, Sb, Se, Si, Sn, Sr, Ti, U, V, Zn	PE-4412 / EPA 6020B Leaching in pH 4,2 of Inorganic Compost (SPLP)
		pH	PE-4413 Net Generation of Acid (NAG)
		Method 200.7: S, Si, Ca, Mg, K, Na Method 200.8: Ag, Al, As, B, Ba, Be, Cd, Co, Cr, Cu, Fe, Hg, Li, Mn, Mo, Ni, P, Pb, Sb, Se, Sn, Sr, Ti, Tl, V, Zn.	PE-4413 / EPA Method 200.7 / EPA Method 200.8) Net Generation of Acid (NAG)
		pH paste	PE-4416 pH paste (paste method)
		Ag, Al, As, Ba, Be, Bi, Ca, Cd, Co, Cr, Cu, Fe, K, Li, Mg, Mn, Mo, Ni, P, Pb, S, Sb, Se, Sn, Sr, Ti, Tl, V, Zn	PE-4421 Tessier Sequential Extraction for Separation of Metals in Solid Samples
	Rock, Drill Core, Sample Pulp, Sample Minerals	Alkaline fusion with sodium peroxide (silicon)	PP-206 Determination of Silicon by fusion with Sodium Peroxide
		Metals: Al, Sb, As, S, Ba, Be, B, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Si, Na, Tl, Th, Ti, W, U, V, Zn	PE-4411 / EPA 6020 B Degradation Method Of Solid Materials Using Moisture Cells / Inductively Coupled Plasma-Mass Spectrometry
	Soils, sediments, sludge, minerals, rocks, tailings, waste rock, pulp, mining wastes	Anions: Chloride, Bromide, Sulfate, Nitrate, Nitrite, Fluoride, Phosphate	PE-4411/ PE-2090 Degradation Method Of Solid Materials Using Moisture Cells / Anions In Waters By Ion Chromatography
		Alkalinity, Carbonate, Bicarbonate	PE-4411/ PEC-011 Degradation Method Of Solid Materials Using Moisture Cells / Alkalinity In Waters

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
MINING – GEOCHEM (cont'd.)	Soils, sediments, sludge, minerals, rocks, tailings, waste rock, pulp, mining wastes (cont'd.)	Conductivity	PE-4411/ PEC-002 Degradation Method Of Solid Materials Using Moisture Cells / Determination Of The Electric Conductivity
		pH	PE-4411/ PEC-001 Degradation Method of Solid Materials Using Moisture Cells / Ph Determination
		Redox potential	PE-4411/ SMEWW-APHA-AWWA-WEF 2580 B Degradation Method Of Solid Materials Using Moisture Cells / Oxidation–Reduction Potential (Orp)
		Metals: Al, Sb, As, S, Ba, Be, B, Bi, Cd, Ca, Co, Cu, Cr, Sn, Sr, P, Fe, Li, Mg, Mn, Hg, Mo, Ni, Ag, Pb, K, Se, Si, Na, Tl, Th, Ti, W, U, V, Zn	PE-4414/ EPA 6020 B Shake Flask Test / Inductively Coupled Plasma—Mass Spectrometry
		Anions: Chloride, Bromide, Sulfate, Nitrate, Nitrite, Fluoride, Phosphate	PE-4414/ PE-2090 Shake Flask Test Solubility Test / Anions in Waters by Ionic Chromatography
		Alkalinity, Carbonate, Bicarbonate	PE-4414/ PEC-011 Shake Flask Test Solubility Test / Alkalinity in Waters
		Conductivity	PE-4414/ PEC-002 Shake Flask Test Solubility Test / Determination of the Electric Conductivity
		pH	PE-4414/ PEC-001 Shake Flask Test Solubility Test / Ph Determination
		Redox potential	PE-4414/ SMEWW-APHA-AWWA-WEF 2580 B Shake Flask Test Solubility Test / Oxidation–Reduction Potential (Orp)
		Granulometry	PE-4039 Granulometric Analysis

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
MINING – GEOCHEM (cont'd.)	Soils, sediments, sludge, minerals, rocks, tailings, waste rock, pulp, mining wastes (cont'd.)	Inorganic Carbon by LECO	PP-287 Determination of Inorganic Carbon by Iir Absorption Method With Elemental Analyzer
		Total Carbon by LECO	PP-266 Total Carbon Determination by IR Absorption Method With Elemental Analyzer
HEALTH & SAFETY	Toys and stationery	Migration of elements Al, Sb, As, Ba, B, Cd, Cr, Co, Cu, Pb, Mn, Hg, Ni, Se, Sr, Sn, Zn	UNE-EN-71-3:2020+A2 (2025) Annex E Migration of certain elements
		Phthalates esters Dibutylphthalate (DBP) Butylbenzylphthalate (BBP) Di(2-ethylhexyl) phthalate (DEHP) Di-n-octylphthalate (DNOP) Di-isononylphthalate (DINP) Diisodecylphthalate (DIDP)	UNE-EN 14372 Child use and care articles - Cutlery and feeding utensils - Safety requirements and tests
	Air	Non-ionizing radiation Electric field intensity (E) Magnetic flux density (B) Magnetic field intensity (H)	UNE-EN 62110:2013/AC:2015 Electric and magnetic field levels generated by AC power systems - Measurement procedures with regard to public exposure
		Non-ionizing radiation Electric field intensity (E) Magnetic flux density (B) Magnetic field intensity (H)	IEEE STD. 644.2019 IEEE Standard Procedures for Measurement of Power Frequency Electric and Magnetic Fields from AC Power Lines.

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FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices	2,4 D ,Ortofenil Fenol (OPP), Acetacloro,Acrinatrina, Alacloro, Aldrin (SP), Atrazina, Benalaxil (SP), Benfluralina,Bifenazato (SP), Bifenilo, Bifentrina, Bitertanol, Bromofos Metil, Bromopropilato, Bupirimato, Carbofenotion, Ciflutrin, Cipermetrina, Ciproconazol, Ciprodinil, Clordano cis, Clordano trans, Clorfenapir, Clorfenvinfós, Cloropropilato, Clorpirifos, Clorpirifos Metil, Clorprofam, Clortal Dimetil, Cyhalotrin-L, DDD-pp + DDT-op, Diazinon, Diclobenilo, Diclorán, Dicofol, Dieldrin (SP), Difenilamina, Difenoconazol, Diflufenicán, Diniconazol, Disulfotón (SP) , Disulfotón sulfona, Disulfotón sulfoxido, Endosulfan Alfa, Endosulfan Beta, Endosulfan Sulfato, Etion, Etofumesato (SP), Etoprofos,Fenarimol, Fenazaquina, Fenitrotión, Fenpropatrin,Fention (SP), Fentoato, Fenvalerato + Esfenvalerato,Flucitrinato, Fonofos, Fosalón, Hexaclorobenceno, Iprodiona,Iprovalicarb, Isazofos, Isofenfos, Isofenfos Metil, Kresoxim Metil, Malation (SP), Mepronilo, Metacrifós, Metalaxil (SP), Metidatión, Metoxicloro, Metribuzina, Mevinfos, Miclobutanil, Mirex, Molinato, Napropamida, Nuarimol, Ofurace, Oxadixilo, Oxifluorfen, pp-DDE, pp- DDT, Paration Etil, Paration Metil (SP), Penconazol, Pendimetalina, Pentacloroanilina, Pentacloroanisol, Pentaclorobenceno, Permetrina, Pirazofos, Piridabén,Piridafention, Pirifenox,Pirimetanil, Pirimicarb (SP), Pirimifos Etil, Pirimifos Metil, Piriproxifén, Procimidona, Profenofós, Profluralin, Propargita, Propizamida, Protiofós, Quinalfós, Quintoceno, Simazina,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Tebuconazol, Tebufenpirad, Tecnaceno, Teflutrin, Terbacil, Terbutilazina, Terbutrin, Tetraconazol, Tetradifón, Tetrametrina, Tiometon, Tolclofos Metil, Transflutrin, Triadimenol (SP), Triazofos, Trifluralina, Vinclozolina (SP), 2,4-DDD, 2,4-DDE, 4,4Dicclorobenzofenona, Ametrina, Buprofezin, Carbosulfan, Clorbenzilat, Clorfenson, Clormefos, Clorotalonil, Clortoluron, Clozolinato, DEET, Deltametrina, Diafentiuron, Diclobutazol, Diclofention, Dicrotofos, Endrin, EPNC, Etrimfos, Fenclorfos, Fenoxicarb, Fention sulfon, Fention Sulfoxido, Fluazifop-Butil, Fluopicolide, Fluopiram, Fluotrimizol, Folpet, Formotion, Fosfamidon, Ftalamida (Folpet), Furalaxil, Heptacloro (SP), Hexaconazol, Lindano, Naled, Paraoxon Metil, Procloraz (SP), Procloraz (suma), BTS 44595, BTS 44596, Prometrina, Propaclor, Terbumeton, Tetraclorvinfos, Tetrahidroftalamida (Captan), Triadimefon (SP), Dieldrin (SUM), DDT (SUM), Disulfutón (SUM), Endosulfan (SUM), Folpet (SUM), Quintoceno (SUM), Paration Metil (SUM), Clordano, Triadimefon y Triadimenol. Abamectina, Acetamiprid, Aldicarb, Aldicarb Sulfona, Aldicarb Sulfoxido, Azoxistrobina, Bendiocarb, Bentiavalicarb, Boscalida, Bromuconazol, Butoxicarboxim, Cadusafos, Carbaril, Carbofuran (SP), Ciazofamida, Cimoxanilo, Clofentezina, Clomazona, Clorantranilliprole, Clotianidin, Oxidemetón- metilo (SP), Demeton-S- Metil (SP), Desmedifam, Diclormid, Dietofencarb, Diflubenzuron, Dimetoato (SP), Dimetomorf, Dodemorfo, Dodina, Epoxiconazol, Espinetoram, Espinosad, Espirodiclofeno,	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Espiromesifeno, Espirotetramat (SP), Espirotetramat-enol, Espirotetramat (suma), Espiroxamina,Etiofencarb, Etiprol, Etofenprox, Etoxazol, Famoxadona, Fenamidona, Fenamifos (SP), Fenbuconazol, Fenhexamida, Fenmedifan, Fenmedifan, Fenpiroximato, Fenpropidin (SP), Fenpropimorfo, Fensulfotion, Flonicamid (SP), Fludioxonilo, Flufenacet, Flufenoxuron, Fluometuron, Fluquinconazol, Flusilazol, Flutolanil, Flutriafol, Forato, Forato Sulfona, Forato Sulfoxido, Forclorfenuron, Fostiazato, Furatiocarb, Hexaflumuron, Hexitiazox, Imazalil, Imidacloprid, Indoxacarb, Isocarbofos, Isoproturón, Isoxabén Lenacilo, Linurón, Mandipropamid, Mecarbam, Mepanipirim, Metaflumizona, Metamitrona, Metazacloro, Metil Tiofanato (SP), Metiocarb (SP), Metolacloro, Metolcarb, Metomilo (SP), Metoxifenoxida, Metoxuron, Metrafenona, Monocrotofós, Monolinurón,Nitenpiram, Novalurón, Ometoato, Oxadiargilo,Oxadiazón, Oxamilo, Oxicarboxina, Paclobutrazol,Pencicurón, Picoxistrobina, Piraclostrobina, Profam, Propamocarb (SP), Propanil, Propaquizafop, Propiconazol, Propoxur, Proquinazid, Prosulfocarb, Quinoxifen, Quizalofop- Ethyl (SP), Rotenona, Sulfotep, Tebufenocida, Teflubenzurón, Terbufos, Tiabendazol, Thiametoxam (SP), Tiacloprid, Tiodicarb (SP), Tridemorfo, Trifloxystrobin, Triflumizol (SP), Triflumurón, Zoxamida,Acefato, Acequinocyl, Amitraz, Azadiractina, Azametifos, Azimsulfurón, Azinfos Etil, Azinfos Metil, Benomilo- Carbendazima, Bentazona Metil,Bentazona (SP),	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)

FIELDS OF TESTING	MATERIAL/ MATRIX	DETERMINANT(S)/ ANALYTE(S)	METHOD REFERENCE
FOOD-ORGANIC-PESTICIDES (cont'd.)	Fruits, Vegetables, Nuts, Cereal & Dried Fruit, Oils/Fatty Matrices (cont'd.)	Bioaletrina,Bromacilo, Butacloro, Butralina,Carbofuran-3- Hidroxi, Carboxim, Carfentrazona Etil, Cicloato, Cicloxidim (SP), Ciflufenamida,Cihexatina, Ciromazina,Clorfluazuron, Cloridazon, Cyantraniliprole, Demeton S Metil sulfona, Dialifos, Diclorvos, Diclofop Metil, Dinocap (SP), Dinotefuram,Diuron, DNOC, Emamectina Benzoato, Espirotetramat- Cis-ketohidroxi, Espirotetramate-Enol- Glucoside, Espirotetramate-Monohidroxi, Etiofencarb sulfóxido, Ethirimol, Etoxiquina,Fenbutatín Óxido, Fenobucarb, Fenpirazamina,Fipronil (SP), Flazasulfuron, Fluacinam, Flubendiamida, Flumioxazina, Formetanato, Fosmet (SP), Haloxyfop-2- Ethoxyetil, Indaziflam, Matrine, Metamidofos, Metiocarb sulfona, Metiocarb sulfóxido, Orizalin, Oxymatrine, Pentiopirad, Pimetrocina, Piridato, Promecarb, Rimsulfuron, Saflufenacil, Sulfoxaflor, Terbufos sulfona, Terbufos sulfóxido, Tiobencarb, Tiociclam, Tolilfluanida (SP), Triclorfon, Triciclazol, Triforina, Aldicarb (SUM), Dimetoato (SUM), Metiocarb (SUM), Forato (SUM), Oxidemetón-metilo (SUM), Carbofuran (SUM), Metomilo (SUM), Thiametoxan (SUM) BAC nC-08, BAC nC-10, BAC nC-12, BAC nC-14, BAC nC-16, BAC nC-18, DDAC nC-08, DDAC nC-10, DDAC nC-12, DDAC nC-14	PE-674 Determination of Pesticide Residues by chromatography GC / MS-MS and LC / MS-MS (cont'd.)
FOOD-INORGANIC	Fruits, vegetables, and fruit juice	Metals: Ag, Al, As, Ba, Be, Cd, Co, Cr, Cu, Hg, Mn, Mo, Ni, Pb, Sb, Se, B, Fe, Li, Sn, Sr, Ti, V, Zn	PE-324 Determination of Total elements in food by spectroscopy ICP-MS.