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### Accreditation Scope

	<b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b>
	<b>Accreditation Nr: AB-0095-T</b> <b>Revision Nr: 022 Date: 10.01.2022</b>
<b>Test</b> <b>TS EN ISO/IEC 17025</b> <b>AB-0095-T</b>	<b>As a Testing Laboratory</b>
<b>Address:</b> Yavuz Selim cad. No:50 Fatih 34240 İSTANBUL/TÜRKİYE	<b>Phone</b> : 0 212 621 23 40 <b>Fax</b> : 0 212 621 23 59 <b>E-Mail</b> : info@haliccevre.com <b>Website</b> : www.haliccevre.com

Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary source emissions - Manual determination of mass concentration of particulate matter  (20-1000 mg/m <sup>3</sup> )  Gravimetric Method	TS ISO 9096
Stack Gases	Stationary Source Emissions - Determination of Low Range Mass Concentration of Dust (5-50 mg/m <sup>3</sup> ) Gravimetric Method	TS EN 13284-1
Stack Gases	Stationary Source Emissions- Determination Of Dust Emission By In-Stack Filter Sampling Gravimetric Method	EPA Method 17
Stack Gases	Stationary Source Emissions- Determination Of Dust Emission By Out-Stack Filter Sampling Gravimetric Method	EPA Method 5
Stack Gases	Stationary Source Emissions- Determination of Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) , Sulfur Trioxide(SO <sub>3</sub> ) And Sulfur Dioxide (SO <sub>2</sub> ) Emissions From Stationary Sources Titrimetric Method(Barium-Thorin)	EPA Method 8
Stack Gases	Stationary source emissions- Sampling for the automated determination of gas concentrations (CO, CO <sub>2</sub> , O <sub>2</sub> , SO <sub>2</sub> , NO <sub>x</sub> (NO, NO <sub>2</sub> ))	TS ISO 10396*
Stack Gases	Stationary source emissions- Determination of the mass concentration of sulfur dioxide(SO <sub>2</sub> ) Analysis: Electrochemical Cell Method	TS ISO 7935*

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary Source Emissions - Determination of Oxygen (O <sub>2</sub> ) Mass Concentration Analysis: Electrochemical Cell Method	TS ISO 12039*
Stack Gases	Stationary Source Emissions - Determination of Carbon Monoxide (CO) and Carbon Dioxide (CO <sub>2</sub> ) Mass Concentration Analysis: Electrochemical Cell Method	TS ISO 12039 *
Stack Gases	Stationary Source Emissions - Determination of Nitrogen Monoxide (NO), Nitrogen Dioxide (NO <sub>2</sub> ) and Nitrogen Oxide (NO <sub>x</sub> ) Emissions Electrochemical Cell Method	EPA CTM 022*
Stack Gases	Stationary Source Emissions - Determination of Smoke Density (Sootiness) Bacharach Method	TS 9503*
Stack Gases	Stationary source emissions- Determination of velocity and volume flowrate of gas streams in stacks Analysis: S-Type Pitot Tube	TS ISO 10780*
Stack Gases	Stationary Source Emissions-Determination of Velocity and Flowrate in Small Size Stack (<0,3 m) Analysis: S Type Pitot Tube	EPA Method 1 A*
Stack Gases	Stationary source emissions -Determination of Sample and Velocity Traverses for Stationary Sources (>0.3 m)  With S Type Pitot Tube	Epa Metot 1*
Stack Gases	Stationary Source Emissions-Determination Of Moisture Content In Stack Gases Gravimetric Method	EPA Method 4
Stack Gases	Stationary Source Emissions-Moisture Determination with wet-dry thermometer method (≤ 100 °C for stack temperature)	In-House Method (TA.35 Rev.03)*

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary Source Emissions-Determination of Moisture by Humidity Probe ( $\leq 180$ °C for stack temperature)	In-House Method (TA.34 Rev.07)*
Stack Gases	Stationary source emissions- Determination of the mass concentration of individual gaseous organic compounds Acetic acid, Methanol, 1,2-Dichloroethane, 1,4-Dioxane, Pyridine  Sampling: Sampling Tube (Activated Carbon) Pretreatment: Solvent Desorption Method Measurement: GC-FID Method	TSE CEN/TS 13649

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	<p>Stationary source emissions- Determination of the mass concentration of individual gaseous organic compounds</p> <p>1,1,1,2-tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane, 1,1-dichloropropene, 1,2,3-Trichloropropane, 1, 2,3-Trimethylbenzene, 1,2,3-trichlorobenzene, 1,2-dibromoethane, 1,2-Dichlorobenzene, 1,1-Dichloroethane, cis-1,2-Dichloroethane, 1,2-dichloropropane, 1,3, 5-Trimethylbenzene, 1,3-dichlorobenzene, 1,3-dichloropropane, 1,4-Dichlorobenzene, 1-Methoxy-2-propanol, 2,2-dichloropropane, 2,6-Dimethyl-4-heptanone, 4-chlorotoluene, 2-Hexanone, 2-Methyl-1-propanol, 3-Heptanone, 2-chlorotoluene, 4-isopropyltoluene, Acetic acid n-propyl ester, Acetic acid-isobutyl ester, Acrylic acid-ethyl ester, alpha-Methylstyrene</p> <p>Sampling: Sampling Tube (Activated Carbon) Pretreatment: Solvent Desorption Method Measurement: GC-MS Method</p>	TSE CEN/TS 13649

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	<p>Stationary source emissions- Determination of the mass concentration of individual gaseous organic compounds (continuing) Bromobenzene, Bromochloromethane , Bromodichloromethane, Bromomethane, Chlorobenzene, Chloromethane,1,2-Dichloroethane (Cis-/Trans), Cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Epichlorohydrin, Hexachlorobutadiene,Hexachloroethane,Iso propylbenzene</p> <p>Sampling: Sampling Tube (Activated Carbon) Pretreatment: Solvent Desorption Method Measurement: GC-MS Method</p>	TSE CEN/TS 13649

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary source emissions- Determination of the mass concentration of individual gaseous organic compounds (continuing) Methyl Acetate, Naphthalene, n-Butylbenzene, Sec-Butylbenzene, Tert-Butylbenzene, Tetrachloroethene, Tetrachloromethane, Trans-1,3-Dichloropropene, Tribromomethane, Trichlorofluoromethane , Vinylchloride, 2-Pentanone, 2,3-Dimethylheptane, 2,3-Dimethylpentane, 1,3-Butadiene, 1,2-Dibromo-3-Chloropropane, 1,2,4-Trichlorobenzene, Vinyl Acetate, Aniline, Ter- Butylmethylether, Octane, Acetyl Acetone, 2-Heptanone, Butyl Glycol, Phenol  Sampling: Sampling Tube (Activated Carbon) Pretreatment: Solvent Desorption Method Measurement: GC-MS Method	TSE CEN/TS 13649

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary source emissions - Determination of the mass concentration of individual gaseous organic compounds 1,2-Trichloroethane, 1,2,4-Trimethylbenzene, 1,2-Dichloroethane, 1-Butanol, 1-Propanol, 2-Butanone, 2-Propanol, 4-Methyl-2-Pentanone, 5-Methyl-3-Heptanone, Acetone, Acetonitrile, Benzene, Chloroform, Cyclohexanone, Dichloromethane, Diethylether, Ethanol, Ethyl Acetate, Ethylbenzene, n-Hexane, Isopropylacetate, Methylcyclohexane, Mp-Xylene, n-Butyl Acethane, n-Penene Xylene, Cyclohexane, Styrene, Tetrahydrofuran, Toluene, Trichloroethylene, Chlorobenzene, n-Heptane, 2-Methoxyethanol  Sampling: Sampling Tube (Activated Carbon) Pretreatment: Solvent Desorption Method Measurement: GC-FID /GC-MS Method	TSE CEN/TS 13649
Stack Gases	Stationary Source Emissions-Sampling and Determination Of Total Fluoride (F) Emissions SPANDS-Zirconium Method	EPA Method 13 A
Stack Gases	Stationary source emissions - Determination of mass concentration of gaseous chlorides expressed as HCl Spectrophotometer	TS EN 1911
Stack Gases	Stationary Source Emissions-Determination of Ammonia(NH <sub>3</sub> ) Emissions From Stationary Sources Ion Selective Electrode Method	SCAQMD Method 207.1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary Source Emissions-Measurement Of Formaldehyde Emissions From Natural Gas-Fired Stationary Sources Spectrophotometer	EPA Method 323
Stack Gases	Stationary Source Emissions-Determination of Formaldehyde Emissions From Stationary Sources In The Mineral Wool And Wool Fiberglass Industries Spectrophotometer	EPA Method 316
Stack Gases	Determination Of Heavy Metals Emissions From Stationary Sources Antimony (Sb), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Chrome (Cr), Cobalt (Co), Copper (Cu), Lead (Pb), Manganese (Mn), Mercury (Hg), Nickel (Ni), Phosphorus (P), Selenium (Se), Silver (Ag), Thallium (Tl), Zinc (Zn) Measurement: AAS Method	EPA Method 29
Stack Gases	Stationary Source Emissions- Sampling and Determination of Hydrogen Cyanide (HCN) Spectrophotometer	CARB 426
Stack Gases	Stationary Source Emissions-Determination Of Hydrogen Sulfide(H <sub>2</sub> S) Content Of Fuel Gas Streams In Petroleum Refineries Titrimetric Method	EPA Method 11
Stack Gases	Determination of Nitrogen Monoxide(NO), Nitrogen Dioxide (NO <sub>2</sub> ) and Nitrogen Oxides(NO <sub>x</sub> ) Emissions Alkaline Permanganate/Colorimetric Method(Spektrophotometer)	EPA Method 7C
Stack Gases	Stationary source emissions- Determination of Nitrogen Monoxide (NO), Nitrogen Dioxide (NO <sub>2</sub> ) and Nitrogen Oxide (NO <sub>x</sub> )  Alkaline Permanganate IC Method	Epa Method 7D



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<b>Tested Materials / Products</b>	<b>Name of Test</b>	<b>Testing Method (National, International standards, in house methods)</b>
Stack Gases	Stationary Source Emissions - Determination Of The Mass Concentration Of Total Gaseous Organic Carbon FID Analyzer	TS EN 12619*
Stack Gases	Stationary Source Emissions - Determination Of The Mass Concentration Of Total Gaseous Organic Carbon FID Analyzer	EPA Metot 25 A*
Stack Gases	Stationary Source Emissions - Determination Of Heavy Metal(Vanadium (V)) Emissions Measurement: AAS Method	TS EN 14385
Stack Gases	Stationary Source Emissions - Phosphoric Acid (H <sub>3</sub> PO <sub>4</sub> ) Sampling and Determination Measurement: Spectrometric Method	NMX-AA-90-1986
Stack Gases	Stationary source emissions - Sampling and Determination of Hexavalent Chromium VI (Cr <sup>+6</sup> ) Spectrophotometer	CARB 425
Stack Gases	Determination of Methane Gas (CH <sub>4</sub> ) Emissions From Stationary Sources Measurement: Electrochemical Cell Method	In-House Method-"TA.307.Rev.00"
Stack Gases	Silica Sampling and Determination (SiO <sub>2</sub> ) Sampling: Sampling on filter by the pump Spectrophotometre	In-House Method-"Ta.339 Rev.01" (Niosh 7602:2017)
Stack Gases	Determination of Phosphine Sampling: Sampling on sorbent tube by the pump Analysis: Spectrophotometric Method	In-House Method-"Ta353 Rev.01" (NIOSH 6002:2015)
Stack Gases	Stationary source emissions - Sampling PCDDs/PCDFs and Dioxins PCBs Compounds Chart 1:Sampling	TS EN 1948-1
Stack Gases	Stationary source emissions - Sampling Gas and Polycyclic Aromatic Hydrocarbons (PAH) Compounds on the form of particule.	ISO 11338-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary source emissions- Determination of Polycyclic in Gas and Particulate Phases Analysis of Mass Concentration of Aromatic Hydrocarbons (PAH)  Naphthalene, Asenaphthylene, Asenaften, Florence Phenanthrene, Anthracene, Pyrene, Florentine, Benzo(a) anthracene, Krisen, Benzo(a) pyrene, Benzo(k) fluoranthene, Benzo(b) fluoranthene, Indeno (1,2,3-c, d) pyrene, Dibenzo (a, h) anthracene, Benzo (g, h, i) perylene, Benzo(e)pyrene, Perylene  Pre-Treatment: Extraction and Cleaning Measurement: GC-MS Method	ISO 11338-2
Stack Gases	Stationary source emissions-Sampling of semivolatile organic compounds (sVOC) and polychlorinated biphenyls (PCBs) compounds  Sampling: Sampling on XAD-2	EPA 0010
Stack Gases	Stationary source emissions- Determination of Semi-Volatile Organic Compounds (sVOC) 1,2- Dichlorobenzene, 1,4- Dichlorobenzene, 1,2,4-trichlorobenzene, Phenol, Hexachloroethane, Hexachlorobutadiene, Naphthalene Sampling: Sampling to XAD-2 Pre-Treatment: Extraction and Cleaning Measurement: GC-MS Method	EPA 0010 EPA Metot 3542 A EPA Metot 8270 E
Stack Gases	Determination of Calcium Oxide (CaO) and Magnesium Oxide (MgO)	In-House Method -“Ta.354 Rev.00” (Epa 29:2017)

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Stack Gases	Stationary Source Emissions - Determination of Velocity and Volume Flowrate of Gas Streams S-Type Pitot Tube	EPA Method 2
Stack Gases	Stationary source emissions Determination Of Hydrogen Halide (HCl, HF, HBr, Cl <sub>2</sub> , Br <sub>2</sub> ) and Halogen Emissions From Stationary Sources Ion Chromatography Method  Sampling: Isokinetic Method Analysis: IC Method	EPA Metot 26 A
Imission (Ambient Air)	Determination of PM10 mass concentrations of suspended particulate matter in ambient air Gravimetric Method	EPA 40 CFR 50 AppJ
Imission (Ambient Air)	Determination of PM2,5 mass concentrations of suspended particulate matter in ambient air Gravimetric Method	EPA 40 CFR 50 AppL
Imission (Ambient Air)	Determination of Heavy Metals in PM 10 (As, Cd, Ni, Pb) Measurement: GF- AAS Method	TS EN 14902 TS EN 14902/AC
Imission (Ambient Air)	Determination of PM10 or PM2,5 mass concentrations of suspended particulate matter in ambient air Gravimetric Method	TS EN 12341
Imission (Ambient Air)	Determination of Heavy Metals in PM 10 (Al, As, Ba, Cd, Co, Cr, Cu, Mn, Ni, Pb, Sb, Se, Sn, Tl, V, Zn) GF-AAS Method	VDI 2267 Part 1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of Heavy Metals in Precipitated Dust Al, As, Ba, Cd, Co, Cr, Cu, Mn, Ni, Pb, Se, Sn, V, Sb, Tl ve Zn GF- AAS Metodu	VDI 2267 Part 2
Imission (Ambient Air)	Determination of Cd, Co, Cr, Cu, Ni, Pb, Sb, V and Zn in precipitated dust Atomic Absorption Method	VDI 2267 Part 16
Imission (Ambient Air)	Determination of Precipitated Dust Gravimetric Method	TS 2341
Imission (Active Sampling) Volatile Organic Compounds	Determination of volatile organic compounds Sampling on active carbon by the pump  Ethanol, n-Pentane, 2-Propanol, Acetone, Dichloro methane, Methanol, Vinyl acetate, n-Hexane, Butanone, Chloroform, Dichloro ethane, Butanol, Benzene, Trichlorethylene, n-Heptane, Pridine, Toluene, n-Octane, n-Butyl acetate, Monochloro benzene, Ethyl benzene, m-Xylene, p-Xylene, o-Xylene, Styrene, Phenol, Aniline, Butyl glycol, Isopropylacetate, Acetonitrile, Diethyl ether, Acetic acid, Diethylamine, 1-Propanol, Tertiarybutylmethylketone, Ethylacetate, 2-Methoxyethanol, Tetrahydrofuran, Cyclohexane, 1-Methoxy-2-propanol, Triethylamine, 1,4 -Dioxane, Methylcyclohexane, Isobutylmethylketon, Acetylacetone, 1,1,2 -Trichloroethane, 1,2,4-Trichlorobenzene, 2 -Heptanone, Cyclohexanone, 5-Methyl-3 -heptanone, Propylbenzene, 1,2,4 -Trimethylbenzene  (GC / FID)	ASTM D 3686 ASTM D 3687

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of (gas and particle-phase)polycyclic aromatic hydrocarbons (PAH)  Naphthalene, Asenaphthylene, Asenaften, Florence, Phenanthrene, Anthracene, Pyrene, Florentine, Benzo(a) anthracene, Krisen, Benzo(a) pyrene, Benzo(k) fluoranthene, Benzo(b) fluoranthene, Indeno (1,2,3-c, d) pyrene, Dibenzo (a, h) anthracene, Benzo (g, h, i) perylene, Benzo(e)pyrene, Perylene  Measurement: GC-MS Method	TS ISO 12884 (Madde 10 Hariç)
Imission (Ambient Air)	Determination of NO <sub>2</sub> Concentration  Sampling:Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points  Analysis: IC Method Analysis:Spectrophotometer	TS EN 13528 1,2,3  In-House Method "TA.338.Rev.03"
Imission (Ambient Air)	Determination of HCl Concentrations  Sampling:Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points  Analysis: IC Method	TS EN 13528 1,2,3  In-House Method "TA.392.Rev.00"

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of HF Concentrations  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points  Analysis: IC Method	TS EN 13528 1,2,3  In-House Method "TA.393.Rev.00"
Imission (Ambient Air)	Determination of SO <sub>2</sub> Concentrations  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points  Analysis: IC Method	TS EN 13528 1,2,3  In-House Method "TA.394.Rev.00"
Imission (Ambient Air)	Determination of NH <sub>3</sub> Concentrations  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection  Analysis: Spectrophotometer Method	TS EN 13528 1,2,3  In-House Method "TA.395.Rev.00"
Imission (Ambient Air)	Determination of O <sub>3</sub> Concentrations  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection  Analysis: Spectrophotometer Method	TS EN 13528 1,2,3  In-House Method "TA.396.Rev.00"

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission(Ambient Air)	Sampling and Determination of BTEX Concentration((Benzene, Toluene, Ethylbenzene, Xylene (m, p, o)  Sampling:Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points  Analysis:GC-FID Method	In-House Method- "TA.344.Rev.01" (TS EN 13528 1,2,3)
Imission(Ambient Air)	Sampling And Determination Of Volatile Organic Compounds Concentration Asetik asit, Metanol, Pridin, Tersiyerbutilmetilketon, 1,4-Dioksan  Sampling:Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points Analysis: GC-FID Method	In-House Method- "TA.344.Rev.01" (TS EN 13528 1,2,3)

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of Volatile Organic Compounds (VOC) 1,1,1,2-Tetrachloroethane, 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane, 1,1-Dichloropropene, 1,2,3-Trichloropropane, 1, 2,3-Trimethylbenzene, 1,2,3-Trichlorobenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,1-Dichloroethane, Cis-1,2-Dichloroethene, 1,2-Dichloropropane, 1,3, 5-Trimethylbenzene, 1,3-Dichlorobenzene, 1,3-Dichloropropane, 1,4-Dichlorobenzene, 2,2-Dichloropropane, 2,6-Dimethyl-4-Heptanone, 4-Chlorotoluene, 2-Hexanone, 2-Methyl-1-Propanol, 3-Heptanone, 2-Chlorotoluene, 4-Isopropyltoluene, Acetic acid n-propyl ester, Acetic acid-isobutyl ester, Acrylic acid-ethyl ester, Alpha-Methylstyrene, Bromobenzene, Bromochloromethane, Bromodichloromethane, Bromomethane, Chloromethane  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection Measurement: GC-MS Method	TS EN 13528 1,2,3  In-House Method "TA.344.Rev.01"



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Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of Volatile Organic Compounds (VOC) (continuing) 1,2-Dichloroethane (Cis-/Trans), Cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Epichlorohydrin, Hexachloroethane, Isopropylbenzene, Methyl Acetate, Naphthalene, n-Butylbenzene, Sec-Butyl-Butylbenzene, Terechlorobenzene , Tetrachloromethane, Trans-1,3-Dichloropropene, Tribromomethane, Trichlorofluoromethane, Vinylchloride, 2-Pentanone, He Xachlorobutadiene, Acetylacetone, 2-Heptanone, Butylglycol, Aniline, Phenol, Vinylacetate, 1,2,4 Trichlorobenzene, 1,2-dibromo-3-chloropropane, Olefins (Tertbutylmethylether, 2,3-Dimethylheptane, 2,3-Dimethylpentane, 1,3-Butadiene)  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection Measurement: GC-MS Method	TS EN 13528 1,2,3  In-House Method "TA.344.Rev.01"

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**Accreditation Scope**

 Test TS EN ISO/IEC 17025 AB-0095-T	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission (Ambient Air)	Determination of Volatile Organic Compounds (VOC)  1,1,2-Trichloroethane, 1,2,4-Trimethylbenzene, 1-Butanol, 1-Propanol, 2-Butanone, 2-Propanol, 4-Methyl-2-Pentanone, 5-Methyl-3-Heptanone, Acetone, Acetonitrile, Benzene, Chloroform, Cyclohexanone, Dichloromethane, Diethylether, Ethanol, Ethyl Acetate, Ethylbenzene, n-Hexane, isopropylacetate, methylcyclohexane, mp-xylene, n-Butyl acetate, n-Pentane, propylbenzene, o-xylene, o-xylene Toluene, Chlorobenzene, 1-Methoxy-2-Propanol, 1,2-Dichloroethane, Trichloroethylene, 2-Methoxyethanol, Olefins (Cyclohexane, Octane, n-Heptane)  Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection Measurement: GC-MS/GC-FID Method	TS EN 13528 1,2,3  In-House Method "TA.344.Rev.01"
Imission(Ambient Air)	Sampling and Determination of H <sub>2</sub> S Concentration Sampling: Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points Spectrophotometer	In-House Method- "TA.342 Rev.00" (TS EN 13528 1,2,3)
Imission(Ambient Air)	Sampling and Determination of Mercaptan Concentration Sampling: Active Sampling Spectrophotometer	TS 9628

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 <p style="font-size: small; text-align: center;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Imission(Ambient Air)	Sampling and Selection of Diffusion Devices, Transport and Uncertainty Components Selection of Device and Sampling Points (NO <sub>x</sub> , Formaldehyde, HCl, HF, NH <sub>3</sub> , -NH <sub>x</sub> , O <sub>3</sub> , SO <sub>2</sub> )	TS EN 13528-1 TS EN 13528-2 TS EN 13528-3
Occupational Hygiene Instant Gas Measurement with Detector Tube	Determination of Concentration of Toxic Gases or Vapors Diisopropylamine (C <sub>6</sub> H <sub>15</sub> N), N,N-Dimethylaniline (C <sub>8</sub> H <sub>11</sub> N), Dipropylamine (C <sub>6</sub> H <sub>15</sub> N), n- Methylaniline (C <sub>7</sub> H <sub>9</sub> N), Morpholine (C <sub>4</sub> H <sub>9</sub> NO), Propylamine (C <sub>3</sub> H <sub>9</sub> N), Pridine (C <sub>5</sub> H <sub>9</sub> N), o-Toludine (C <sub>7</sub> H <sub>9</sub> N), p-Toludine (C <sub>7</sub> H <sub>9</sub> N), Isopropylacetate (C <sub>5</sub> H <sub>10</sub> O <sub>2</sub> ), tert-Butanol (C <sub>4</sub> H <sub>10</sub> O), Butyl ether (C <sub>8</sub> H <sub>18</sub> O), Butyl methacrylate(C <sub>8</sub> H <sub>14</sub> O <sub>2</sub> ), tert-Butyl methyl ether (C <sub>5</sub> H <sub>12</sub> O), Cumene (C <sub>9</sub> H <sub>12</sub> ), Cyclohexane (C <sub>6</sub> H <sub>12</sub> ), Decahydronaphthalene (C <sub>10</sub> H <sub>18</sub> ), n-Decan (C <sub>10</sub> H <sub>22</sub> )  Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement	ASTM D 4490-96

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Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement with Detector Tube	Determination of Concentration of Toxic Gases or Vapors (continuing) Diethylbenzene (C <sub>10</sub> H <sub>14</sub> ), Ethylmethacrylate (C <sub>6</sub> H <sub>10</sub> O <sub>2</sub> ), Isopropyl ether (C <sub>6</sub> H <sub>14</sub> O), n-Nonane (C <sub>9</sub> H <sub>20</sub> ), 1,2,4 - Trimethylbenzene (C <sub>9</sub> H <sub>12</sub> ), p-Dichlorobenzene (C <sub>6</sub> H <sub>4</sub> Cl <sub>2</sub> ), Undecane (C <sub>11</sub> H <sub>24</sub> ) Acrylonitrile (C <sub>3</sub> H <sub>3</sub> N), Acetaldehyde (C <sub>2</sub> H <sub>4</sub> O), Tetrachlorethylene (C <sub>2</sub> Cl <sub>4</sub> ), Carbondisulfide (CS <sub>2</sub> ), Mercury vapor (Hg), Naphthalene (C <sub>10</sub> H <sub>8</sub> ) Bromochloromethane (CH <sub>2</sub> BrCl), Bromoform (CHBr <sub>3</sub> ), 1-Bromopropane (C <sub>3</sub> H <sub>7</sub> Br), 2 -Bromopropane (C <sub>3</sub> H <sub>7</sub> Br), Dibromomethane (CH <sub>2</sub> Br <sub>2</sub> ), 1,2-Dichloropropane (C <sub>3</sub> H <sub>6</sub> Cl <sub>2</sub> ), Ethyl bromide (C <sub>2</sub> H <sub>5</sub> Br), General hydrocarbons, Methyl isothiocyanate (C <sub>2</sub> H <sub>3</sub> NS)  Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement	ASTM D 4490-96

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 TÜRKAK Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement with Detector Tube	Determination of Concentration of Toxic Gases or Vapors (continuing) Ethylbenzene (C <sub>8</sub> H <sub>10</sub> ), Ethylene (C <sub>2</sub> H <sub>4</sub> ), Acetone (C <sub>3</sub> H <sub>6</sub> O), Methyl ethyl ketone (C <sub>4</sub> H <sub>8</sub> O), Ethylacetate (C <sub>4</sub> H <sub>8</sub> O <sub>2</sub> ), Butylacetate (C <sub>6</sub> H <sub>12</sub> O <sub>2</sub> ), Ethylene oxide (C <sub>2</sub> H <sub>4</sub> O), Propylene glycol(C <sub>3</sub> H <sub>8</sub> O <sub>2</sub> ), Propylene oxide (C <sub>3</sub> H <sub>6</sub> O), Kerosin, Heptane (C <sub>7</sub> H <sub>16</sub> ), Methylmercaptan (CH <sub>4</sub> S), Methylalcohol (CH <sub>4</sub> O), 1 -Butanol C <sub>4</sub> H <sub>10</sub> O), Methyl isobutyl ketone (C <sub>6</sub> H <sub>12</sub> O), 2-Ethoxyethanol (C <sub>4</sub> H <sub>10</sub> O <sub>2</sub> ), Tetrahydrofuran (C <sub>4</sub> H <sub>8</sub> O), 1,1,1-Trichloroethane (C <sub>2</sub> H <sub>3</sub> Cl <sub>3</sub> )  Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement	ASTM D 4490-96

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Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement with Detector Tube	Occupational Hygiene Instant Gas Measurement with Detector Tube (continuing) Arsine (AsH <sub>3</sub> ), Isopropylalcohol (C <sub>3</sub> H <sub>8</sub> O), Phenol (C <sub>6</sub> H <sub>6</sub> O), Cresol (C <sub>7</sub> H <sub>8</sub> O), Aniline (C <sub>6</sub> H <sub>5</sub> NH <sub>2</sub> ), Ethylamine (C <sub>2</sub> H <sub>7</sub> N), Inorganic gas determinant, Amins, Nitrogen dioxide (NO <sub>2</sub> ), Phosphine (PH <sub>3</sub> ), Nitric acid (HNO <sub>3</sub> ), Hydrogen Bromide (HBr), Nitrogen oxides (NO <sub>x</sub> ), Butane (C <sub>4</sub> H <sub>10</sub> ), Hydrogen (H <sub>2</sub> ), Vinyl chloride (CH <sub>2</sub> CHCl), Ethylene glycol (C <sub>2</sub> H <sub>6</sub> O <sub>2</sub> ), Pentyl acetate (C <sub>7</sub> H <sub>14</sub> O <sub>2</sub> ), Styrene (C <sub>8</sub> H <sub>8</sub> ), Divinyl benzene (C <sub>6</sub> H <sub>4</sub> ), α-Pinene (C <sub>10</sub> H <sub>16</sub> )  Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement	ASTM D 4490-96

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### Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement with Detector Tube	Determination of Concentration of Toxic Gases or Vapors Hydrogen cyanide (HCN), Phosgene (COCl <sub>2</sub> ), Acetylene (C <sub>2</sub> H <sub>2</sub> ), Hydrogen peroxide (H <sub>2</sub> O <sub>2</sub> ), Oxygen (O <sub>2</sub> ), Chlorine(Cl <sub>2</sub> ), Tetrachloroethylene (C <sub>2</sub> Cl <sub>4</sub> ), Acetaldehyde (C <sub>2</sub> H <sub>4</sub> O), Methylmetacrylate (C <sub>5</sub> H <sub>8</sub> O <sub>2</sub> ), Butyl amine (C <sub>4</sub> H <sub>11</sub> N), Cyclohexyl amine (C <sub>6</sub> H <sub>13</sub> N), Dibutylamine (C <sub>8</sub> H <sub>19</sub> N), Oil Mist), (Sulfur dioxide (SO <sub>2</sub> ), Ammonia (NH <sub>3</sub> ), Carbon monoxide (CO), Hydrogen sulfide (H <sub>2</sub> S), Propane (C <sub>3</sub> H <sub>8</sub> ), Carbon dioxide (CO <sub>2</sub> ), Hydrogen fluoride (HF), Formaldehyde (CH <sub>2</sub> O), Hydrogen chloride (HCl)  Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement	ASTM D 4490-96

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement with Detector Tube	<p>Determination of Concentration of Toxic Gases or Vapors (continuing) Ozone (O<sub>3</sub>), Sulfuric acid (H<sub>2</sub>SO<sub>4</sub>), Asetic acid (CH<sub>3</sub>COOH), Formic acid (HCOOH), Asetic anhidryde (C<sub>4</sub>H<sub>6</sub>O<sub>3</sub>), Acrylic acid (C<sub>3</sub>H<sub>4</sub>O<sub>2</sub>), Butyric acid (C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>), Isobutyric acid (C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>), Isovaleric acid (C<sub>5</sub>H<sub>10</sub>O<sub>2</sub>), Maleic anhydride (C<sub>4</sub>H<sub>2</sub>O<sub>3</sub>), Methacrylic acid (C<sub>4</sub>H<sub>6</sub>O<sub>2</sub>), Allyl alcohol (C<sub>3</sub>H<sub>6</sub>O), Propionic acid (C<sub>3</sub>H<sub>6</sub>O<sub>2</sub>), n-Valeric acid (C<sub>5</sub>H<sub>10</sub>O<sub>2</sub>), Organic gas determiner, Pentane (C<sub>5</sub>H<sub>12</sub>), Hexane (C<sub>6</sub>H<sub>14</sub>), Trichlorethylene (C<sub>2</sub>HCl<sub>3</sub>), Tetrachlorethylene (C<sub>2</sub>Cl<sub>4</sub>), Butadiene (C<sub>4</sub>H<sub>6</sub>), Gasoline, Benzene (C<sub>6</sub>H<sub>6</sub>), Toluene (C<sub>7</sub>H<sub>8</sub>), Xylene (C<sub>8</sub>H<sub>10</sub>), Carbon tetra chloride (CCl<sub>4</sub>), Dimethylformamide (C<sub>3</sub>H<sub>7</sub>NO), Methyl acrylate (C<sub>4</sub>H<sub>6</sub>O<sub>2</sub>), Butyl acrylate (C<sub>7</sub>H<sub>12</sub>O<sub>2</sub>), Ethyl acrylate (C<sub>5</sub>H<sub>8</sub>O<sub>2</sub>) (Chlorine Dioxide (ClO<sub>2</sub>), Chlorine (Cl<sub>2</sub>),</p> <p>Sampling and Measurement: Instant Measurement with a Detector Tube Sampling and Measurement: Long Term with Dosimeter Tube Passive Measurement</p>	ASTM D 4490-96
Occupational Hygiene Instant Gas Measurement	<p>Determination of Oxygen (O<sub>2</sub>), Carbonmonoxide (CO), Hydrogen sulfide (H<sub>2</sub>S), Methane (CH<sub>4</sub>, %LEL), Carbon dioxide (CO<sub>2</sub>), Sulfur dioxide (SO<sub>2</sub>), Nitrogen dioxide (NO<sub>2</sub>)</p> <p>Sampling and Measurement: Electrochemical Cell Method</p>	In-House Method- "TA.266.01/Rev.00"(NIOSH-NMAM 6604:2016, NIOSH-NMAM 6601:1994)
Occupational Hygiene Instant Gas Measurement	<p>Determination of Carbon Monoxide (CO)</p> <p>Sampling and Measurement: Electrochemical Cell Method</p>	NIOSH-NMAM 6604



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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Instant Gas Measurement	Determination of Oxygen (O <sub>2</sub> ) Sampling and Measurement: Electrochemical Cell Method	NIOSH-NMAM 6601
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds  1,4-Dioxane (Diethylene ether), Acetic Acid (Ethanoic Acid) (Hydrogen Acetate), Diethylamine, Methanol (Methyl alcohol), Pyridine (Azabenzol) (Azin), Triethylamine  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-FID Method	TS ISO 16200-1
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds 1,1,1,2-tetrachloroethane, 1,1,1-Trichloroethane (Methyl Chloroform), 1,1,2,2-Tetrachloroethane, 1,1-Dichloroethane (Vinylidene Chloride) (Vinylidene Dichloride), 1,1-dichloropropene, 1,2,3-Trichloropropane (Trichlorhydrin), (Allyl Trichloride), 1,2,3-Trimethylbenzene (Hemellitilol), 1,2,3-Trichlorobenzene, 1,2-Dibromoethane (Glycolbromide), (Ethylenebromide), (Ethylenedibromide), 1,2-Dichlorobenzene (o-dichlorobenzene), 1,2-Dichloroethane (Ethylenedichloride), (Ethanedichloride), 1,1-Dichloroethane (1,1-Ethylidene Dichloride)  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS Method	TS ISO 16200-1

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	<p>Determination of Volatile Organic Compounds (continuing) (Ethylidene Chloride), (Ethylidene Dichloride) , cis-1,2-Dichloroethene (cis-acetylene dichloride), 1,2-dichloropropane (Propylene bichloride), 1,3,5-Trimethylbenzene (Mesiethylene), 1,3-dichlorobenzene (m-Dichlorobenzene), 1,3 -dichloropropane, 1,4-Dichlorobenzene (p-dichlorobenzene), 2,2-dichloropropane, 2,6-Dimethyl-4-heptanone, 4-chlorotoluene, 2-Hexanone (Propilacetone) (Butyl Methyl Ketone), 2-Methyl- 1-propanol (Isobutanol), (Isobutyl alcohol), 3-Heptanone (Ethylbutylketone) (3-oxoheptane) (Butylethylketone), 2-chlorotoluene, 4-isopropyltoluene, Acetic acid n-propyl ester, As ethic acid-isobutyl ester</p> <p>Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS Method</p>	TS ISO 16200-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds (continuing) Acrylic acid-ethyl ester, alpha-Methylstyrene (Isopropenylbenzene) (beta-phenyl propylene), Bromobenzene (Bromobenzole) (Phenyl Bromide), Bromochloromethane, Bromodichloromethane, Bromomethane, Chloromethane (Methylchloride), 1,2-Dichloroethane (cis-/trans), Cis-1,3-Dichloropropene, Dibromochloromethane, Dibromomethane, Dichlorodifluoromethane, Epichlorohydrin (1-Chloro-2,3-epoxypropane), Hexachlorobutadiene (hexachloro-1,3,-butadiene) (Trypene) (Perchlorobutadiene)  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS Method	TS ISO 16200-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds (continuing) Hexachloroethane (Carbon hexachloride) (Ethane hexachloride) (Perchloroethane), Isopropylbenzene (Cumene) (Cumol), Methyl acetate (Methyl ethanoate) (Methyl ester of acetic acid), Naphthalene, n-Butylbenzene (1-phenylbutane) (1-butylbenzene), sec-Butylbenzene (1-methylpropylbenzene), Tert-butylbenzene (1,1-dimethylethylbenzene), Tetrachloroethene (Perchloroethylene) (Perchloroethene)  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS Method	TS ISO 16200-1

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds (continuing) Tetrachloromethane (Carbon Tetrachloride) (Carbon Chloride) (Benziform) (Perchloromethane), Trans-1, 3-dichloropropene, Tribromomethane (Bromoform) (Methyl tribromide), Trichlorofluoromethane (Fluorochloroform), Vinylchloride (K chloroethylene), 2,3-Dimethylheptane, 2,3Dimethylpentane, 1,3-Butadiene (Biethylene) (Divinyl) (Vinylethylene) (Bivinyll) (Butadiene), 1,2-Dibromo-3-chloropropane (Dibromochloropropane)  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS Method	TS ISO 16200-1

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	<p>Determination of Volatile Organic Compounds</p> <p>1,1,2-Trichloroethane, 1,2,4-Trimethylbenzene, 1-Butanol (Butanol) (n-Butyl alcohol) (Butylhydrate Butyric alcohol) (Propylcarbinol)), 1-propanol, 2-Butanone (Butanone) (Ethyl methyl ketone), 2-Heptanone (Heptan-2-Open), 2-Propanol (Isopropyl alcohol) (IPA) (Isopropanol) (Sec-Propanol), 4-Methyl-2-pentanone (Isobutylmethylketone) (MIK) (MIBK) (2-Pentanone) (Hexon), 5-Methyl-3-heptanone, Acetone (Dimethyl Ketone) (Dimethyl Carbonyl) (Propanone) (Dimethyl Formaldehyde), Acetonitrile (Ethanenitrile) (Methyl Cyanide), Aniline (Phenylamine) (Aminobenzene) (Benzamine), Acetylacetone, Benzene, Butylglycol (2-Butoxyethanol) (Ethyleneglycolmonobutylether) (EGBE), Chloroform (Trichloromethane)</p> <p>Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS/GC-FID Method</p>	TS ISO 16200-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	<p>Determination of Volatile Organic Compounds (continuing)</p> <p>Cyclohexanone, Dichloromethane (Methylenechloride), Diethylether (Ethoxy ethane) (Ethyl ether) (Ethyl oxide), Ethanol (Ethyl alcohol), Ethyl Acetate (Ethylethanolate) (Ethyl Ester) (Acetic Ester), Ethylbenzene, Ethyleneglycolmonomethylether (2-Methoxyethanol), n-Hexane, Isopropylacetate (2-Propyl acetate), Methylcyclohexane (Hexahydrotoluene) (Cyclohexylmethane), mp-xylene, n-Butyl acetate, n-Heptane, n-benzene, Octane, o-Xylene</p> <p>Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS/GC-FID Method</p>	TS ISO 16200-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Volatile Organic Compounds	Determination of Volatile Organic Compounds (continuing) Phenol (Carbolic acid) (Hydroxybenzene), Cyclohexane (Hexahydrobenzene) (Hexamethylene), Styrene (Vinylbenzene) (Phenylethylene), tert-butylmethylether (Tertiarybutylmethylketone) (MTBE), Tetrahydrofuran (1,4-Epoxybutane) (Butylene oxide) (Hydrofuran) (Furanidine), Toluene, Vinylacetate (Acetic Acid Vinyl Ester), 2-Pentanone (4-M) ethylpentan-2-one)(Isobutylmethylketone) (MIK) (MIBK) (Hexon), Trichloroethylene, Chlorobenzene, Trichlorobenzene (1,2,4 Trichlorobenzene), 1,2-Dichloroethane, 1-Methoxy-2-propanol  Sampling: Pumping Sorbent Tube Sampling Pre-Treatment: Solvent Desorption Analysis: GC-MS/GC-FID Method	TS ISO 16200-1
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of heavy metals and compounds (Gold (Au), Silver (Ag), Aluminum (Al), Barium (Ba), Beryllium (Be), Calcium (Ca), Chromium (Cr), Cobalt (Co), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Selenium (Se), Tin (Sn), Thallium (Tl), Zinc (Zn), Cadmium (Cd), Sodium (Na), Titanium (Ti), Potassium (K))  Sampling: Sampling on filter by the pump Analysis: Flame Atomic Absorption Spectroscopy (AAS)	In-House Method- "TA.268.Rev.05" (ASTM D 4185)



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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Mercury (Hg) Sampling: Sampling on sorbent tube by the pump Analysis: Cold Vapor Atomic Absorption Spectroscopy (AAS)	NIOSH-NMAM 6009
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Heavy Metal and Compounds Vanadium (V) Sampling: Sampling on filter by the pump Analysis: Graphite Furnace Atomic Absorption Spectroscopy (AAS)	In-House Method- "TA.242.Rev.04" (ASTM D 4185:2017- ASTM D 3373:2017)
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Arsenic trioxide (As <sub>2</sub> O <sub>3</sub> ) Sampling: Sampling on filter by the pump Analysis: Graphite Furnace Atomic Absorption Spectroscopy (AAS)	NIOSH-NMAM 7901
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Heavy Metal Lead (Pb) Sampling: Sampling on filter by the pump Analysis: Flame Atomic Absorption Spectroscopy (AAS)	NIOSH-NMAM 7082
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Hexavalent Chromium (Cr+6) Sampling: Solution Absorption Analysis: Spectrophotometric Method	NIOSH-NMAM 7600
Occupational Hygiene Heavy Metal Analysis in Workplace	Determination of Heavy Metal and Compounds ((Tin (Sn), Antimony (Sb), Potassium (K)) Sampling: Sampling on filter by the pump Analysis: Flame Atomic Absorption Spectroscopy (AAS)	OSHA ID 121
Occupational Hygiene Magnesium Oxide, Calcium Oxide, Titanium Dioxide in Workplace	Determination of Magnesium Oxide (MgO), Calcium Oxide(CaO), Titanium Dioxide(TiO <sub>2</sub> ) Sampling: Sampling on filter by the pump Analysis: Atomic Absorption Spectroscopy (AAS)	In-House Method- "TA.304.Rev.05" (ASTM D 4185)

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene  Aluminum Oxide	Determination of aluminum oxide (Al <sub>2</sub> O <sub>3</sub> )  Sampling: Sampling on filter by the pump Measurement: Flame Absorption Spectrophotometer (AAS)	OSHA-ID 198SG
Occupational Hygiene  Calcium Carbonate	Determination of Calcium Carbonate (CaCO <sub>3</sub> )  Sampling: Sampling on filter by the pump Measurement: Flame Absorption Spectrophotometer (AAS)	Internal Method- "TA. 400.Rev00" (NIOSH-NMAM 7020:1994)
Occupational Hygiene Dust Measurement	Determination of Respirable and Inhalable Dust  Sampling: Sampling on filter by the pump Analysis: Gravimetric	HSE-MDHS 14/3
Occupational Hygiene Dust Measurement	Determination of Respirable Dust  Sampling: Sampling on filter by the pump Analysis: Gravimetric	ASTM D 4532-15
Occupational Hygiene Dust Measurement	Determination of Inhalable Dust  Sampling: Sampling on filter by the pump Analysis: Gravimetric	NIOSH-NMAM 500
Occupational Hygiene Dust Measurement	Determination of Respirable Dust  Sampling: Sampling on filter by the pump Analysis: Gravimetric	NIOSH-NMAM 600
Occupational Hygiene Dust Measurement	Determination of Dust and Aerosol in Metalworking Fluids  Sampling: Sampling on filter by the pump Analysis: Gravimetric	NIOSH -NMAM 5524
Occupational Hygiene Oil Mists	Determination of Mineral Oil Mists  Sampling: Sampling on filter by the pump Analysis: Gravimetric	MDHS 84/2
Occupational Hygiene Dust Measurement	Determination of Aerosols in Workplace  Analysis:: Direct Fotometric Reading	CEN/TR 16013-3

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Rubber Fume and Dust	Determination of rubber process dust and rubber fume Sampling: Sampling on filter by the pump Analysis: Gravimetric Method ve Soxhlet Extraction Method	MDHS 47/3
Occupational Hygiene Nitrogenoxides in Workplace	Determination of Nitrogen Oxide (NO) and Nitrogen Dioxide (NO <sub>2</sub> ) Sampling: Sampling on sorbent tube by the pump Analysis: Spectrometric	NIOSH-NMAM 6014
Occupational Hygiene Sulfur Dioxide	Determination of Sulfur Dioxide (SO <sub>2</sub> ) Sampling: Sampling to the filter with the pump Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography (IC)	NIOSH-NMAM 6004
Occupational Hygiene Chlorine Dioxide	Determination of Chlorine oxides (ClO <sub>2</sub> ) Sampling: Sampling on imprecise Measurement: Ion Chromatography (IC)	OSHA-ID 202
Occupational Hygiene Hydrogen Peroxide	Determination of Hydrogen Peroxide (H <sub>2</sub> O <sub>2</sub> ) Sampling: Sampling on filter by the pump Measurement: Spectrophotometric Method	OSHA-ID 1019
Occupational Hygiene Ozone	Determination of Ozone ( O <sub>3</sub> ) Sampling: Sampling on filter by the pump Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography (IC)	OSHA-ID 214
Occupational Hygiene Asphalt Fume in Workplace	Determination of Asphalt Fume Sampling: Sampling on filter by the pump Analysis: Gravimetric	NIOSH-NMAM 5042

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Phosphine in Workplace	Determination of Phosphine Sampling: Sampling on sorbent tube by the pump Analysis: Spectrometric	NIOSH-NMAM 6002
Occupational Hygiene Acetic Anhydride in Workplace	Determination of Acetic Anhydride Sampling: Sampling on filter by the pump Analysis: Spectrometric	NIOSH-NMAM 3506
Occupational Hygiene Bromide, Chloride	Determination of Bromide (Br <sub>2</sub> ) and Chloride (Cl <sub>2</sub> )  Sampling: Sampling on filter by the pump Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography (IC) with Conductivity Detector	NIOSH-NMAM 6011
Occupational Hygiene Hydrogen Sulfide	Determination of Hydrogen Sulfide (H <sub>2</sub> S)  Sampling: Sampling on filter by the pump Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography with Conductivity Detector	NIOSH-NMAM 6013
Occupational Hygiene Inorganic Acid	Determination of Hydrofluoric Acid (HF) and Particulate Fluorine (F <sup>-</sup> )  Sampling: Sampling on filter by the pump  Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography with Conductivity Detector	NIOSH-NMAM 7906

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Inorganic Acid	Hydrochloric Acid (HCl), Hydrobromic Acid (HBr), Nitric Determination of Acid (HNO <sub>3</sub> )  Sampling: Sampling on filter by the pump Pre-Treatment: Solvent Desorption Measurement: Ion Chromatography with Conductivity Detector	NIOSH-NMAM 7907
Occupational Hygiene Inorganic Acid	Determination of Non-Volatile Acids (Sulfuric Acid (H <sub>2</sub> SO <sub>4</sub> ) and Phosphoric Acid (H <sub>3</sub> PO <sub>4</sub> ))  Sampling: Sampling on filter by the pump Measurement: Ion Chromatography with Conductivity Detector	NIOSH-NMAM 7908
Occupational Hygiene Asbestos Sampling	Sampling Asbestos and Other Fibers	NIOSH-NMAM 7400
Occupational Hygiene Thermal Comfort	Ergonomics of the thermal environment - Assessment of heat stress using the WBGT (wet bulb globe temperature) index	TS EN 7243
Occupational Hygiene Thermal Comfort	Determination and interpretation of thermal comfort using calculation of the PMV and PPD indices and local thermal comfort criteria	TS EN ISO 7730
Occupational Hygiene Thermal Comfort	Ergonomics of the thermal environment - Determination and interpretation of cold stress when using required clothing insulation (IREQ) and local cooling effects	TS EN ISO 11079
Occupational Hygiene Analysis of Formaldehyde	Determination of Formaldehyde Sampling: Sampling on filter+impinger by the pump Analysis: Visible Spectrophotometer	NIOSH-NMAM 3500

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Ammonia	Determination of Ammonia(NH <sub>3</sub> ) Sampling: Sampling on sorbent tube by the pump Analysis :Visible Absorption Spectrophotometer	NIOSH-NMAM 6015
Occupational Hygiene Alkaline Dust	Determination of Alkaline Dust (Sodium Hydroxide (NaOH), Potassium Hydroxide (KOH), Lithium Hydroxide (LiOH)) Sampling: Sampling on filter by the pump Analysis: Titration	NIOSH-NMAM 7401
Occupational Hygiene Silica-Silica Crystals	Determination of Crystal Silica (SiO <sub>2</sub> ) Sampling: Sampling on filter by the pump Analysis :Visible Absorption Spectrophotometer	NIOSH-NMAM 7601
Occupational Hygiene Silica-Silica Crystals	Determination of Crystal Silica (SiO <sub>2</sub> ) Sampling: Sampling on filter by the pump Analysis: Fourier Transform Infrared Spectroscopy (FTIR)	NIOSH-NMAM 7602
Occupational Hygiene Silica-Silica Crystals	Determination of Crystal Silica (SiO <sub>2</sub> ) Sampling: Sampling on filter by the pump Analysis: Fourier Transform Infrared Spectroscopy (FTIR)	HSE -MDHS 101/2
Occupational Hygiene Hydrazine Analysis in Workplace	Determination of Hydrazine Sampling: Sampling on filter by the pump Analysis: Spektrophotometric	NIOSH -NMAM 3503
Occupational Hygiene Hydrogen Cyanide	Determination of Hydrogen Cyanide (HCN) Sampling: Sampling on sorbent tube by the pump Analysis: Visible Spectrophotometer	NIOSH-NMAM 6010
Occupational Hygiene Carbon Black	Determination of Carbon Black Sampling: Sampling on filter by the pump Analysis: Gravimetric	OSHA ID 196

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Occupational Hygiene Magnetic Field	Basic standard on measurement and calculation procedures for human exposure to electric, magnetic and electromagnetic fields (0 Hz - 1 MHz)	TS EN 50413
Occupational Hygiene Lighting	Measurement of Lighting Levels in the Work Place	COHSR-928-1-IPG-039
Occupational Hygiene Noise	Determination of occupational noise exposure in workplace	TS EN ISO 9612
Occupational Hygiene Noise	Determination of emission sound pressure levels at a work station and at other specified positions in an essentially free field over a reflecting plane with negligible environmental corrections	TS EN ISO 11201
Occupational Hygiene Noise	Determination of emission sound pressure levels at a work station and at other specified positions applying approximate environmental corrections	TS EN ISO 11202
Occupational Hygiene Noise	Determination of emission sound pressure levels at a work station and at other specified positions applying accurate environmental corrections	TS EN ISO 11204
Occupational Hygiene Noise	Determination of noise at workplace	In-House Method-"TA.275.Rev.06" (TS ISO 1996-2:2009-TS ISO 1996-2/T1:2009)
Occupational Hygiene Noise	Determination of occupational noise exposure and estimation of noise-induced hearing impairment	TS 2607 ISO 1999
Occupational Hygiene Noise	Determination of sound immission from sound sources placed close to the ear - Part 1: Technique using a microphone in a real ear (In-Ear Noise Measurement)	ISO 11904-1
Acoustics Noise	Acoustics — Description, measurement and assessment of environmental noise — Part 1: Basic quantities and assessment procedures	TS ISO 1996-1

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Acoustics Noise	Acoustics — Description, measurement and assessment of environmental noise — Part 2: Determination of sound pressure levels	TS ISO 1996-2
Acoustics Noise	Determination of industrial trucks noise emission level (LPA, LWA)	TS EN 12053+A1
Acoustics Noise	Determination of sound power levels of multisource industrial plants for evaluation of sound pressure levels in the environment ( $\Delta L_s$ , $\Delta L_F$ , $\Delta L_M$ , $\Delta L_\alpha$ , LpA, Lw)	TS ISO 8297
Acoustics Noise	Determination of sound power levels and sound energy levels of noise sources using sound pressure by using engineering methods	TS EN ISO 3744
Acoustics Noise	Determination of sound power levels of noise sources using sound pressure by using survey method ( $L_{peq,T}$ , $\Delta L_s$ , $K_1$ , $K_2$ , Lpf, LW)	TS EN ISO 3746
Acoustics Noise	Attenuation of sound during propagation outdoors - Part 2: General method of calculation	TS ISO 9613-2
Acoustics Noise	Framework for calculating a distribution of sound exposure levels	ISO 13474
Occupational Hygiene Vibration	Measurement and Evaluation of human exposure to whole- body vibration	TS ISO 2631-1 (with TS EN 1032+A1)
Occupational Hygiene Vibration	Measurement and evaluation of human exposure to hand-transmitted vibration	TS EN ISO 5349-1 TS EN ISO 5349-2
Occupational Hygiene Vibration	Testing of mobile machinery in order to determine the vibration emission value	TS EN 1032+A1
Vibration	Air Blast and Ground Vibration Measuring in Mining (a,v)	TS 10354
Vibration	Mechanical vibration - Measurement and evaluation of machine vibration Part 5: Machine sets in hydraulic power generating and pump-storage plants	ISO 20816-5



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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Vibration	Measurement of vibration of buildings and evaluation of their effects on buildings (tr, a,V)	TS ISO 4866
Water	Sampling of rivers and streams	TS EN ISO 5667-6
Water	Sampling From Lakes, Natural and Man-Made	TS ISO 5667-4
Water	Sampling of groundwaters	TS ISO 5667-11
Water	Sampling on wet deposition	TS ISO 5667-8
Water	Sampling for microbiological analysis	TS EN ISO 19458
Water	Sampling of drinking water from treatment plant and piped distribution systems	TS ISO 5667-5
Water	Determination of pH Electrometric Method	SM 4500 H <sup>+</sup> B
Water	Determination of Temperature Laboratory and Field Method	SM 2550 B
Water	Determination of Conductivity Laboratory Method	SM 2510 B
Water	Determination of Turbidity Nephelometric Method	SM 2130 B
Water	Light Scattering / Determination of Secchi Disk Depth  Secchi Disk Method	EPA 841-B-97-003
Water	Determination of Salinity Electrical Conductivity Method	SM 2520 B
Water	Determination of Dissolved Oxygen Membrane Electrode Method	SM 4500-O G
Water	Determination of Flowrate One Point Measurement Method	TS 5699

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Mercury (Hg)  Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Cold Vapor Atomic Absorption Method	SM 3030 E SM 3030 K SM 3112 B
Water	Determination of Dissolved Oxygen Luminance Method	ASTM D888 Method C
Water	Determination of Silver (Ag), Aluminum (Al), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Selenium (Se), Antimony (Sb), Tin (Sn)  Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Graphite Furnace Spectrometer Method	SM 3030 E SM 3030 K SM 3113 B
Water	Determination of Silver(Ag), Gold (Au), Calcium (Ca), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Nickel (Ni), Lead (Pb), Antimony (Sb), Tin (Sn), Thallium (Tl), Zinc (Zn), Sodium (Na), Potassium (K)  Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Direct Air-Acetylene Flame method	SM 3030 E SM 3030 K SM 3111 B

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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Aluminum (Al), Barium (Ba), Beryllium (Be), Calcium (Ca), Molybdenum (Mo)  Pre-Treatment: Extraction with Nitric Acid Pretreatment: Microwave Assisted Extraction Method Measurement: AAS-Direct Nitrous Oxide Acetylene Flame Method	SM 3030 E SM 3030 K SM 3111 D
Water	Determination of Suspended Solids (SS) Gravimetric Method	SM 2540 D
Water	Determination of Total Solid Gravimetric Method	SM 2540 B
Water	Determination of Settleable Solids Volumetric Method	SM 2540 F
Water	Determination of Total Fixed and Volatile Solids Gravimetric Method	SM 2540 E
Water	Determination of Total Dissolved Solids Gravimetric Method	SM 2540 C
Water	Determination of Chemical Oxygen Demand (COD) Reflux-Titrimetric Method	SM 5220 B
Water	Determination of Biological Oxygen Demand (BOD) 5-Day BOD Test	SM 5210 B
Water	Determination of Total Kjeldahl Nitrogen Macro Kjeldahl Method	SM 4500-Norg B
Water	Determination of Ammonia/Ammonium Nitrogen Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-NH <sub>3</sub> B SM 4500-NH <sub>3</sub> F

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Ammonia/Ammonium Nitrogen Pre Treatment: Distillation Method Measurement: Titrimetric Method	SM 4500-NH <sub>3</sub> B SM 4500-NH <sub>3</sub> C
Water	Determination of Alkalinity Titrimetric Method	SM 2320 B
Water	Determination of m Alkalinity - p Alkalinity  Titrimetric Method	SM 2320 B
Water	Determination of Alkalinity in terms of Carbon Dioxide and Its Forms and Carbon Dioxide (CO <sub>2</sub> )  Titrimetric Method	SM 4500 CO <sub>2</sub> D
Water	Determination of Flouride Pre Treatment: Distillation Method Measurement: SPANDS Method	SM 4500-F B SM 4500-F D
Water	Determination of Chlorine Titrimetric Method	SM 4500-Cl <sup>-</sup> B
Water	Determination of Chlorine Titrimetric Method	SM 4500-Cl <sup>-</sup> C
Water	Determination of Sulfate Gravimetric Method	SM 4500-SO <sub>4</sub> <sup>2-</sup> C
Water	Determination of Sulfate Gravimetric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> D
Water	Determination of Sulfate Spectrophotometric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> E
Water	Determination of Bromide, Fluoride, Chloride, Nitrate / Nitrate Nitrogen, Nitrite / Nitrite Nitrogen, Orthophosphate, Phosphate / Phosphate Phosphorus, Sulphate  Ion Chromatography (IC)	TS EN ISO 10304-1

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Fluoride, Chloride, Bromide, Nitrite / Nitrite Nitrogen, Nitrate / Nitrate Nitrogen, Orthophosphate, Phosphate / Phosphate Phosphorus, Sulphate  Ion Chromatography (IC)	SM 4110 B
Water	Determination of Bromate, Chlorate, Chlorite  Ion Chromatography (IC)	SM 4110 D
Water	Determination of Color Spectrophotometric Method	SM 2120 C
Water	Determination of Color Spectrometric Method	TS EN ISO 7887 B
Water	Determination of Nitrate Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> B
Water	Determination of Nitrate/Nitrate Nitrogen Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> E
Water	Determination of Total Cyanide Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-CN C SM 4500-CN E
Water	Determination of Free Cyanide Spectrophotometric Method	SM 4500-CN E
Water	Determination of Hexavalent Chromium(VI) Spectrophotometric Method	SM 3500-Cr B
Water	Determination of Nitrite/Nitrite Nitrogen Spectrophotometric Method	SM 4500-NO <sub>2</sub> <sup>-</sup> B
Water	Determination of Sulfite Titrimetric Method	SM 4500 SO <sub>3</sub> <sup>-2</sup> B
Water	Determination of Sulfite Spectrophotometric Method	SM 4500 SO <sub>3</sub> <sup>2-</sup> C
Water	Determination of Oil And Grease Sokset Ekstraktion Method	SM 5520 D

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### Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Free Chlorine/Total Chlorine/Residual Chlorine Spectrophotometric Method	SM 4500-Cl G
Water	Determination of Total Chlorine/Determination of Free Chlorine/Determination of Residual Chlorine Spectrophotometric Method	TS EN ISO 7393-2
Water	Determination of Phenol Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 5530 B SM 5530 D
Water	Determination of Sulfide Spectrophotometric Method	SM 4500-S <sup>2-</sup> D
Water	Determination of Sulfide Titrimetric Method	SM 4500-S <sup>2-</sup> F
Water	Determination of Total Phosphorus Pre Treatment: Extraction Method Measurement: Spectrophotometric Method	SM 4500-P B SM 4500-P D
Water	Phosphate/ Phosphate Phosphorus Spectrophotometric Method	SM 4500-P D
Water	Determination of Hydrazine Spectrophotometric Method	ASTM D1385-07
Water	Determination of Hydrocarbons Soxhlet Ekstraktion Method	SM 5520 D ve F
Water	Determination of Vanadium (V) Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Graphite Furnace Spectrometer Method	SM 3030 E SM 3030 K ASTM D3373
Water	Determination of Hardness EDTA Titrimetric Method	SM 2340 C

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Water	Determination of Calcium (Ca) and Calcium Hardness  EDTA Titrimetric Method	SM 3500-Ca B
Water	Determination of Magnesium (Mg) and Magnesium Hardness  Calculation Method	SM 3500 Mg B
Water	Determination of Permanganate Index  Titrimetric Method	TS 6288 EN ISO 8467
Water	Determination of Polyaromatic Hydrocarbons (PAH)  Naphthalene, Asenaphthylene, Asenaften, Florence, Phenanthrene, Anthracene, Pyrene, Florentine, Benzo(a) anthracene, Krisen, Benzo(a) pyrene, Benzo(k) fluoranthene, Benzo(b) fluoranthene, Inden (1,2,3-c, d) pyrene, Dibenzo (a, h) anthracene, Benzo (g, h, i) perylene, Benzo(e)pyrene, Perylene  Pre-Treatment: Liquid-Liquid Extraction Measurement:GC-MS Method	EPA 3510 C EPA 3630 C EPA 8270 E
Water	Methylene Blue Active Substances(MBAS) Spectrometric Method	SM 5540 B SM 5540 C
Water	Determination of Boron(B) Spectrophotometric Method	TS 3661
Water	Determination of Chlorophyll-a Spectrophotometric Method	SM 10200 H
Water	Determination of Chlorophyll-a Spectrophotometric Method	TS 9092 ISO 10260
Wastewater	Sampling From Wastewater	TS ISO 5667-10

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### Accreditation Scope

 TÜRKAK Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Temperature Laboratory and Field Method	SM 2550 B
Wastewater	Determination of pH Electrometric Method	SM 4500 H <sup>+</sup> B
Wastewater	Determination of Conductivity Laboratory Method	SM 2510 B
Wastewater	Determination of Salinity Electrical Conductivity Method	SM 2520 B
Wastewater	Determination of Turbidity Nephelometric Method	SM 2130 B
Wastewater	Light Scattering / Determination of Secchi Disk Depth  Secchi Disk Method	EPA 841-B-97-003
Wastewater	Determination of Dissolved Oxygen Membrane Electrode Method	SM 4500-O G
Wastewater	Determination of Dissolved Oxygen Luminance Method	ASTM D888 Method C
Wastewater	Determination of Flowrate Flowrate Method	TS 5699
Wastewater	Determination of Mercury (Hg)  Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Cold Vapor Atomic Absorption Method	SM 3030 E SM 3030 K SM 3112 B



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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	<p>Determination of Silver(Ag), Gold (Au), Calcium (Ca), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Magnesium (Mg), Manganese (Mn), Nickel (Ni), Lead (Pb), Antimony (Sb), Tin (Sn), Thallium (Tl), Zinc (Zn), Sodium (Na), Potassium (K)</p> <p>Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Direct Air-Acetylene Flame method</p>	<p>SM 3030 E SM 3030 K SM 3111 B</p>
Wastewater	<p>Determination of Silver (Ag), Aluminum (Al), Arsenic (As), Barium (Ba), Beryllium (Be), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Iron (Fe), Manganese (Mn), Molybdenum (Mo), Nickel (Ni), Lead (Pb), Selenium (Se), Antimony (Sb), Tin (Sn)</p> <p>Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Graphite Furnace Spectrometer Method</p>	<p>SM 3030 E SM 3030 K SM 3113 B</p>
Wastewater	<p>Determination of Aluminum (Al), Barium (Ba), Beryllium (Be), Calcium (Ca), Molybdenum (Mo)</p> <p>Pre-Treatment: Extraction with Nitric Acid Pretreatment: Microwave Assisted Extraction Method Measurement: AAS-Direct Nitrous Oxide Acetylene Flame Method</p>	<p>SM 3030 E SM 3030 K SM 3111 D</p>
Wastewater	<p>Determination of Suspended Solids (SS) Gravimetric Method</p>	<p>SM 2540 D</p>

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Total Solid Gravimetric Method	SM 2540 B
Wastewater	Determination of Total Dissolved Solids Gravimetric Method	SM 2540 C
Wastewater	Determination of Settleable Solids Volumetric Method	SM 2540 F
Wastewater	Determination of Total Fixed and Volatile Solids Gravimetric Method	SM 2540 E
Wastewater	Determination of Chemical Oxygen Demand (COD) Open Reflux-Titrimetric Method	SM 5220 B
Wastewater	Determination of Total Kjeldahl Nitrogen Macro Kjeldahl Method	SM 4500-Norg B
Wastewater	Determination of Biological Oxygen Demand (BOD) 5-Day BOD Test	SM 5210 B
Wastewater	Determination of Ammonia/Ammonium Nitrogen Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-NH <sub>3</sub> B SM 4500-NH <sub>3</sub> F
Wastewater	Determination of Ammonia/Ammonium Nitrogen Pre Treatment: Distillation Method Measurement: Titrimetric Method	SM 4500-NH <sub>3</sub> B SM 4500-NH <sub>3</sub> C
Wastewater	Determination of Alkalinity Titrimetric Method	SM 2320 B
Wastewater	Determination of m Alkalinity - p Alkalinity  Titrimetric Method	SM 2320 B
Wastewater	Determination of Alkalinity and Carbon Dioxide (CO <sub>2</sub> ) by Carbon Dioxide and Its Forms  Titrimetric Method	SM 4500 CO <sub>2</sub> D

## Annex of the certificate (Page 51/68)

### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Flouride Pre Treatment: Distillation Method Measurement: SPANDS Method	SM 4500-F B SM 4500-F D
Wastewater	Determination of Chlorine Titrimetric Method	SM 4500-Cl <sup>-</sup> B
Wastewater	Determination of Chlorine Titrimetric Method	SM 4500-Cl <sup>-</sup> C
Wastewater	Determination of Sulfate Gravimetric Method	SM 4500-SO <sub>4</sub> <sup>2-</sup> C
Wastewater	Determination of Sulfate Gravimetric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> D
Wastewater	Determination of Sulfate Spectrophotometric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> E
Wastewater	Determination of Bromide, Fluoride, Chloride, Nitrate / Nitrate Nitrogen, Nitrite / Nitrite Nitrogen, Orthophosphate, Phosphate / Phosphate Phosphorus, Sulphate  Ion Chromatography (IC) Method	TS EN ISO 10304-1
Wastewater	Determination of Fluoride, Chloride, Bromide, Nitrite / Nitrite Nitrogen, Nitrate / Nitrate Nitrogen, Orthophosphate, Phosphate / Phosphate Phosphorus, Sulphate  Ion Chromatography (IC) Method	SM 4110 B
Wastewater	Determination of Bromate, Chlorate, Chlorite  Ion Chromatography (IC)	SM 4110 D
Wastewater	Determination of Color Spectrometric Method	TS EN ISO 7887 B
Wastewater	Determination of Color Spectrophotometric Method	SM 2120 C

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Nitrate Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> B
Wastewater	Determination of Nitrate/Nitrate Nitrogen Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> E
Wastewater	Determination of Total Cyanide Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-CN C SM 4500-CN E
Wastewater	Determination of Free Cyanide Spectrophotometric Method	SM 4500-CN E
Wastewater	Determination of Hexavalent Chromium(VI) Spectrophotometric Method	SM 3500-Cr B
Wastewater	Determination of Nitrite/Nitrite Nitrogen Spectrophotometric Method	SM 4500-NO <sub>2</sub> <sup>-</sup> B
Wastewater	Determination of Sulfite Titrimetric Method	SM 4500 SO <sub>3</sub> <sup>-2</sup> B
Wastewater	Determination of Sulfite Spectrophotometric Method	SM 4500 SO <sub>3</sub> <sup>2-</sup> C
Wastewater	Determination of Oil And Grease Sokslet Ekstraktion Method	SM 5520 D
Wastewater	Fish Bioassay Determination of Toxicity Test	SKKY Communiqué on Sampling and Analysis Annex-1
Wastewater	Determination of Free Chlorine/Total Chlorine/Residual Chlorine Spectrophotometric Method	SM 4500-Cl G
Wastewater	Determination of Total Chlorine/Free Chlorine/Residual Chlorine  Spectrophotometric Method	TS EN ISO 7393-2
Wastewater	Determination of Phenol Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 5530 B SM 5530 D
Wastewater	Determination of Sulfide Spectrophotometric Method	SM 4500-S <sup>2-</sup> D

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### Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Sulfide Titrimetric Method	SM 4500-S <sup>2-</sup> F
Wastewater	Determination of Total Phosphorus Pre Treatment: Extraction Method Measurement: Spectrophotometric Method	SM 4500-P B SM 4500-P D
Wastewater	Phosphate/ Phosphate Phosphorus Spectrophotometric Method	SM 4500-P D
Wastewater	Determination of Hydrazine Spectrophotometric Method	ASTM D1385
Wastewater	Determination of Hydrocarbons Soxhlet Ekstraktion Method	SM 5520 D ve F
Wastewater	Determination of Vanadium (V)  Pre-Treatment: Extraction with Nitric Acid Pre-Treatment: Microwave Assisted Extraction Method Measurement: AAS-Graphite Furnace Spectrometer Method	SM 3030 E SM 3030 K ASTM D3373
Wastewater	Determination of Hardness EDTA Titrimetric Method	SM 2340 C
Wastewater	Determination of Calcium (Ca) and Calcium Hardness  EDTA Titrimetric Method	SM 3500-Ca B
Wastewater	Determination of Magnesium (Mg) and Magnesium Hardness  Calculation Method	SM 3500 Mg B
Wastewater	Determination of Permanganate Index  Titrimetric Method	TS 6288 EN ISO 8467

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### Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Wastewater	Determination of Polyaromatic Hydrocarbons (PAH)  Naphthalene, Asenaphthylene, Asenaften, Florence, Phenanthrene, Anthracene, Pyrene, Florentine, Benzo(a) anthracene, Krisen, Benzo(a) pyrene, Benzo(k) fluoranthene, Benzo(b) fluoranthene, Inden (1,2,3-c, d) pyrene, Dibenzo (a, h) anthracene, Benzo (g, h, i) perylene, Benzo(e)pyrene, Perylene  Pre-Treatment: Liquid-Liquid Extraction Measurement:GC-MS Method	EPA 3510 C EPA 3630 C EPA 8270 E
Wastewater	Methylene Blue Active Substances(MBAS) Spectrometric Method	SM 5540 B SM 5540 C
Wastewater	Determination of Boron(B) Spectrophotometric Method	TS 3661
Wastewater	Determination of Chlorophyll-a Spectrophotometric Method	SM 10200 H
Wastewater	Determination of Chlorophyll-a Spectrophotometric Method	TS 9092 ISO 10260
Waste Oil	Waste Oil and Petroleum Liquids Manual sampling	TS 900-1 EN ISO 3170
Waste Oil	Method of sampling insulating liquids	TS EN 60475
Waste Oil	Determination of Arsenic (As), Cadmium (Cd), Chromium (Cr), Lead (Pb), Phosphorus (P)  Pre Treatment: Acidic Extraction by Microwave Measurement: AAS- Graphite Furnace Method	EPA 3051A SM 3113 B

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Waste Oil	Determination of Lead (Pb), Calcium(Ca), Zinc(Zn) Pre Treatment: Acidic Extraction by Microwave Measurement: AAS- Direct Air-Acetylene Flame Method	EPA 3051A SM 3111 B
Waste Oil	Determination of Flash Point Pensky-Martens Closed Cup Tester	ASTM D93
Waste Oil	Determination of Chloride Oxygen-Calimetry Method Measurement: Titrimetric Method	EPA 5050 EPA 9253
Waste Oil	Determination of Chloride Oxygen-Calimetry Method Measurement: Titrimetric Method	EPA 5050 SM 4500 Cl B SM 4500 Cl C
Types of Gasoline, Types of Diesel, Gas Oil, Fuel Oil	Determination of Density Hydrometer Method	TS 1013 EN ISO 3675
Types of Diesel, Gas Oil, Fuel Oil	Determination of Flash Point Pensky-Martens Closed Cup Tester	ASTM D93
Types of Gasoline	Determination of Amount of Lead (Pb) AAS- Direct Air-Acetylene Flame Method	ASTM D 3237
Types of Diesel, Fuel Oil	Determination of Amount of Ash	ASTM D 482
Types of Diesel, Types of Gasoline	Doctor Test	ASTM D 4952
Sea Water	Sampling from Sea Water	TS ISO 5667-9
Sea Water	Light Scattering / Determination of Secchi Disk Depth Secchi Disk Method	EPA 841-B-97-003
Sea Water	Determination of Temperature Laboratory and Field Method	SM 2550 B
Sea Water	Determination of pH Electrometric Method	SM 4500 H <sup>+</sup> B

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 TÜRKAK Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sea Water	Determination of Suspended Solids (SS) Gravimetric Method	SM 2540 D
Sea Water	Determination of Dissolved Oxygen Membrane Electrode Method	SM 4500-O G
Sea Water	Determination of Salinity Electrical Conductivity Method	SM 2520 B
Sea Water	Determination of Color Spectrophotometric Method	SM 2120 C
Sea Water	Determination of Color Spectrophotometric Method	TS EN ISO 7887 B
Sea Water	Determination of Nitrite/Nitrite Nitrogen Spectrophotometric Method	SM 4500-NO <sub>2</sub> <sup>-</sup> B
Sea Water	Determination of Nitrate/Nitrate Nitrogen Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> E
Sea Water	Determination of Ammonia/Ammonium Nitrogen Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-NH <sub>3</sub> B SM 4500-NH <sub>3</sub> F
Sea Water	Determination of Total Phosphorus Pre Treatment: Extraction Method Measurement: Spectrophotometric Method	SM 4500-P B SM 4500-P E
Sea Water	Phosphate/ Phosphate Phosphorus Spectrophotometric Method	SM 4500-P E
Sea Water	Determination of Turbidity Nephelometric Method	SM 2130 B
Sea Water	Determination of Oil And Grease Sokslet Ekstraktion Method	SM 5520 D
Sea Water	Determination of Hexavalent Chromium(VI) Spectrophotometric Method	SM 3500-Cr B
Sea Water	Determination of Total Kjeldahl Nitrogen Macro Kjeldahl Method	SM 4500-Norg B
Sea Water	Determination of Nitrate Spectrophotometric Method	SM 4500-NO <sub>3</sub> <sup>-</sup> B



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 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sea Water	Determination of Chlorophyll-a Spectrophotometric Method	TS 9092 ISO 10260
Sea Water	Determination of Chlorophyll-a Spectrophotometric Method	SM 10200 H
Sea Water	Determination of Toxicity Test	In-house method TA.177 Rev.06 (Sampling and Analysis Methods of WPCR Appendix-1 and TS 5676 have been modified.)
Sea Water	Determination of Cadmium (Cd), Copper (Cu), Lead (Pb), Nickel (Ni) Pre Treatment: Method for Metals Analysis: AAS - Graphite Furnace Method	In-House Method "TA.321 Rev.00" (Seawater Analysis Third Extended Willey-VHC Klaus Grasshoff:2009) SM 3113 B
Sea Water	Determination of Zinc (Zn) Pre Treatment: Method for Metals Analysis: AAS- Direct Air-Acetylene Flame Method	In-House Method "TA.321 Rev.00" (Seawater Analysis Third Extended Willey-VHC Klaus Grasshoff:2009) SM 3111 B
Sea Water	Determination of Phenol Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 5530 B SM 5530 C
Sea Water	Determination of Flouride Pre Treatment: Distillation Method Measurement: Spectrometric Method	SM 4500 F B SM 4500 F D
Sea Water	Determination of Chlorine Titrimetric Method	SM 4500 Cl-B
Sea Water	Determination of Chlorine Titrimetric Method	SM 4500 Cl-C
Sea Water	Determination of Total Chloride Spectrophotometric Method	SM 4500Cl G
Sea Water	Determination of Chemical Oxygen Demand (COD) Open Reflux-Titrimetric Method	TS 2789-Ek A/B
Sea Water	Determination of Degradable Organic Pollutants 5-Day BOD Test Method	SM 5210 B

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;"><b>Accreditation Nr: AB-0095-T</b></p> <p><b>Revision Nr: 022 Date: 10.01.2022</b></p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sea Water	Determination of Sulfide Spectrophotometric Method	SM 4500 S <sup>2-</sup> D
Sea Water	Determination of Sulfide Titrimetric Method	SM 4500 S <sup>2-</sup> F
Sea Water	Determination of Sulfate Gravimetric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> C
Sea Water	Determination of Sulfate Spectrophotometric Method	SM 4500 SO <sub>4</sub> <sup>2-</sup> E
Sea Water	Determination of Total Cyanide Pre Treatment: Distillation Method Measurement: Titrimetric Method	SM 4500-CN C SM 4500-CN D
Sea Water	Determination of Total Cyanide Pre Treatment: Distillation Method Measurement: Spectrophotometric Method	SM 4500-CN C SM 4500-CN E
Sea Water	Methylene Blue Active Substances(MBAS) Spectrometric Method	SM 5540 B SM 5540 C
Sewage Sludge	Sludge Sampling from Sewage and Water Treatment Plants	TS EN ISO 5667-13
Sewage Sludge	Determination of Arsenic (As), Beryllium (Be), Molybdenum (Mo), Selenium (Se), Thallium (Tl), Lead (Pb), Cadmium (Cd), Nickel (Ni), Antimony (Sb), Copper (Cu), Barium (Ba), Chromium (Cr) Pretreatment: Acidic Extraction by Microwave Measurement: AAS - Graphite Furnace Method	EPA 3051A SM 3113 B
Sewage Sludge	Determination of Silver (Ag), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Nickel (Ni), Lead (Pb), Tin (Sn), Zinc (Zn), Antimony (Sb) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Direct Air-Acetylene Flame Method	EPA 3051A SM 3111 B

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 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sewage Sludge	Determination of Barium (Ba) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Direct Nitrous Oxide-Acetylene Flame Method	EPA 3051A SM 3111 D
Sewage Sludge	Determination of Mercury (Hg) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Cold Vapor Atomic Absorption	EPA 3051A SM 3112 B
Sewage Sludge	Determination of Fluoride Pre-Treatment: Solid Extraction Method + Distillation Measurement: Direct Photometric Method	TS EN 12457-4 SM 4500-F B SM 4500-F D
Sewage Sludge	Determination of Vanadium (V) Pre Treatment: Acidic Extraction by Microwave Measurement: AAS- Graphite Furnace Method	EPA 3051A ASTM D 3373
Sewage Sludge	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879
Sewage Sludge	Determination of pH Electrometric Method	TS ISO 10390
Sewage Sludge	Determination of Dry Residue(%) and Water Content(%) Gravimetric Method	TS 9546 EN 12880
Sewage Sludge	Determination of Electrical Conductivity Electrometric Method	TS 8ISO 11265
Sewage Sludge	Determination of Organic Matter Titrimetric Method	TS 8336
Sewage Sludge	Determination of Total Nitrogen Improved Kjeldahl Method	TS 8337 ISO 11261

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### Accreditation Scope

 <p style="font-size: 8px; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sewage Sludge	Determination of Kjeldahl Nitrogen Kjeldahl Nitrogen Method	TS EN 13342
Sewage Sludge	Determination of Phosphorus Modified Bray and Kurtz Method	TS 8338
Sewage Sludge	Determination of Soil Structure Determination of Saturation Percentage	TS 8333
Waste	Sampling from Solid Wastes	TS 12090
Waste	Determination of Arsenic (As), Beryllium (Be), Molybdenum (Mo), Selenium (Se), Thallium (Tl), Lead (Pb), Cadmium (Cd), Nickel (Ni), Antimony (Sb), Copper (Cu), Barium (Ba), Chromium (Cr) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS - Graphite Furnace Method	TS EN 12457-4 EPA 3051A SM 3113 B
Waste	Determination of Silver (Ag), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Nickel (Ni), Lead (Pb), Tin (Sn), Zinc (Zn), Antimony (Sb) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Direct Air-Acetylene Flame Method	TS EN 12457-4 EPA 3051A SM 3111 B
Waste	Determination of Barium (Ba) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Direct Nitrous Oxide-Acetylene Flame Method	TS EN 12457-4 EPA 3051A SM 3111 D
Waste	Determination of Mercury (Hg) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Cold Vapor Atomic Absorption	TS EN 12457-4 EPA 3051A SM 3112 B

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### Accreditation Scope

 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Waste	Determination of Chlorine Pretreatment: Leaching Measurement: Titrimetric Method	TS EN 12457-4 SM 4500-Cl <sup>-</sup> B
Waste	Determination of Chlorine Pretreatment: Leaching Measurement: Titrimetric Method	TS EN 12457-4 SM 4500-Cl <sup>-</sup> C
Waste	Determination of Flouride Pre Treatment: Leaching +Distillation Measurement: Direct Photometric Method	TS EN 12457-4 SM 4500-F B SM 4500-F D
Waste	Determination of Sulfate Pre Treatment: Leaching Measurement: Gravimetric Method	TS EN 12457-4 SM 4500-SO <sub>4</sub> <sup>2-</sup> C
Waste	Determination of Sulfate Pre Treatment: Leaching Measurement: Gravimetric Method	TS EN 12457-4 SM 4500 SO <sub>4</sub> <sup>2-</sup> D
Waste	Determination of Sulfate Pre Treatment: Leaching Measurement: Turbidimetric Method	TS EN 12457-4 SM 4500-SO <sub>4</sub> <sup>2-</sup> E
Waste	Determination of Bromide, Fluoride, Chloride, Nitrite/Nitrite Nitrogen, Nitrate/Nitrate Nitrogen, Orthophosphate, Phosphate/Phosphate Phosphorus, Sulfate Pretreatment: Solid Extraction Method Measurement: Ion Chromatography (IC)	TS EN 12457-4 SM 4110 B
Waste	Determination of Total Dissolved Solids Pre Treatment: Leaching Measurement: Gravimetric Method	TS EN 12457-4 SM 2540 C
Waste	Determination of Vanadium (V) Pre Treatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Graphite Furnace Method	TS EN 12457-4 EPA 3051A ASTM D 3373
Waste	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Waste	Determination of pH Electrometric Method	TS ISO 10390
Waste	Determination of Dry Residue(%) and Water Content(%) Gravimetric Method	TS 9546 EN 12880
Waste	Determination of Electrical Conductivity Electrometric Method	TS ISO 11265
Waste	Determination of Organic Matter Titrimetric Method	TS 8336
Waste	Determination of Polychlorinated Biphenyls (PCBs) (PCB28, PCB52, PCB101, PCB118, PCB138, PCB153 and PCB180)  Pre-Process: Soxlet Extraction Method Pre-Treatment: Silicagel Cleanup Measurement: GC-MS Method	TS EN 17322 ISO 13876
Waste	Determination of Phenol Index Pre Treatment: Leaching Measurement: Spectrophotometric Method	TS EN 12457-4 TS 6227 ISO 6439
Compost	Determination of pH Electrometric Method	TS ISO 10390
Compost	Determination of Dry Residue(%) and Water Content(%) Gravimetric Method	TS 9546 EN 12880
Compost	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879
Compost	Determination of Organic Matter Titrimetric Method	TS 8336

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Compost	Determination of Mercury (Hg) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Cold Vapor Atomic Absorption	EPA 3051 A SM 3112 B
Compost	Determination of Arsenic (As), Cadmium(Cd), Tin(Sn), Lead(Pb) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS - Graphite Furnace Method	EPA 3051 A SM 3113 B
Compost	Determination of Nickel (Ni), Zinc (Zn), Copper (Cu), Chromium (Cr) Pretreatment: Microwave Assisted Digestion of Leachate Measurement: AAS- Flame Method	EPA 3051 A SM 3111 B
Soil	Sampling From Surface soil, Preserving and Transporting Soil Samples	TS 9923
Soil	Determination of Arsenic (As), Beryllium (Be), Molybdenum (Mo), Selenium (Se), Thallium (Tl), Lead (Pb), Cadmium (Cd), Nickel (Ni), Antimony (Sb), Copper (Cu), Barium (Ba), Chromium (Cr) Pretreatment: Microwave Assisted Extraction Measurement: AAS - Graphite Furnace Method	EPA 3051A SM 3113 B
Soil	Determination of Silver (Ag), Cadmium (Cd), Cobalt (Co), Chromium (Cr), Copper (Cu), Nickel (Ni), Lead (Pb), Tin (Sn), Zinc (Zn), Antimony (Sb) Pretreatment: Microwave Assisted Extraction Measurement: AAS- Direct Air Acetylene Flame Method	EPA 3051A SM 3111 B

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Soil	Determination of Barium (Ba) and Titanium (Ti) Pretreatment: Microwave Assisted Extraction Measurement: AAS- Direct Nitrous Oxide-Acetylene Flame Method	EPA 3051A SM 3111 D
Soil	Determination of Mercury (Hg) Pretreatment: Microwave Assisted Extraction Measurement: AAS- Cold Vapor Atomic Absorption	EPA 3051A SM 3112 B
Soil	Determination of Vanadium (V) Pre Treatment: Microwave Assisted Extraction Measurement: AAS- Graphite Furnace Method	EPA 3051A ASTM D 3373
Soil	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879
Soil	Determination of pH Electrometric Method	TS ISO 10390
Soil	Determination of Dry Residue (%) and Water Content (%) Gravimetric Method	TS 9546 EN 12880
Soil	Determination of Organic Matter Titrimetric Method	TS 8336
Soil	Determination of Total Salt Content	TS 8334
Soil	Determination of Hexavalent Chromium(VI) Pre-Treatment: Alkaline Extraction Method Measurement: Spectrophotometric Method	EPA 3060 A EPA 7196 A
Soil	Determination of Phosphorus Modified Bray and Kurtz Method	TS 8338



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 <p style="font-size: small; margin-top: 5px;">Test TS EN ISO/IEC 17025 AB-0095-T</p>	<p><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="margin-top: 20px;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Soil	Determination of Total Cyanide Pre Treatment: Extraction+Distillation Measurement: Titrimetric+Spectrometric Method	EPA 9013 A EPA 9010 C EPA 9014
Soil	Determination of Total Cyanide Pre Treatment: Distillation Measurement: Spectrophotometric Method	SM 4500-CN B SM 4500-CN C SM 4500-CN E
Soil	Determination of Cyanide Spectrophotometric Method	ISO 11262
Soil	Determination of Oil And Grease Sokset Ekstraksiyon Metodu	SM 5520 E
Soil	Determination of Total Nitrogen Improved Kjeldahl Method	TS 8337 ISO 11261
Soil	Determination of Soil Structure Determination of Saturation Percentage	TS 8333
Sediment	Sampling from Marine Sediments	TS EN ISO 5667-19
Sediment	Sampling from Bottom Sediments	TS 9547 ISO 5667-12
Sediment	Determination of Dry Residue(%) and Water Content(%) Gravimetric Method	TS 9546 EN 12880
Sediment	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879
Sediment	Determination of Electrical Conductivity Electrometric Method	TS ISO 11265
Sediment	Determination of pH Electrometric Method	TS ISO 10390
Sediment	Determination of Phosphorus Modified Bray and Kurtz Method	TS 8338

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### Accreditation Scope

 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Sediment	Determination of Cadmium (Cd), Chromium (Cr), Lead (Pb), Copper (Cu), Nickel (Ni), Zinc (Zn), Iron (Fe), Tin (Sn) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Flame Method	EPA 3051 A SM 3111 B
Sediment	Determination of Barium (Ba), Beryllium (Be), Aluminum (Al) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Flame Method	EPA 3051 A SM 3111 D
Sediment	Determination of Cadmium (Cd), Lead (Pb), Copper (Cu), Nickel (Ni), Tin (Sn), Aluminum (Al), Vanadium (V), Barium (Ba), Beryllium (Be), Cobalt (Co), Arsenic (As) Pretreatment: Acidic Extraction by Microwave Measurement: AAS - Graphite Furnace Method	EPA 3051 A SM 3113 B
Sediment	Determination of Mercury (Hg) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Cold Vapor Atomic Absorption	EPA 3051 A SM 3112 B
Biota	Guidelines for the selection of sampling methods and devices for benthic macroinvertebrates in fresh waters	TS EN ISO 10870
Biota	Determination of Dry Residue(%) and Water Content(%) Gravimetric Method	TS 9546 EN 12880
Biota	Determination of the Loss on Ignition of Dry Mass Gravimetric Method	TS EN 12879

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p style="text-align: center;"><b>HALİÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</b></p> <p style="text-align: center;">Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Biota	Determination of Cadmium (Cd), Chromium (Cr), Lead (Pb), Copper (Cu), Nickel (Ni), Zinc (Zn), Iron (Fe), Tin (Sn) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Flame Method	EPA 3051 A SM 3111 B
Biota	Determination of Barium (Ba), Beryllium (Be), Aluminum (Al) Pretreatment: Acidic Extraction by Microwave Measurement: AAS- Flame Method	EPA 3051 A SM 3111 D
Biota	Determination of Cadmium (Cd), Lead (Pb), Copper (Cu), Nickel (Ni), Tin (Sn), Aluminum (Al), Vanadium (V), Barium (Ba), Beryllium (Be), Cobalt (Co) Pretreatment: Acidic Extraction by Microwave Measurement: AAS - Graphite Furnace Method	EPA 3051 A SM 3113 B
Biota	Determination of Phenol Index Pre-Treatment: Acidic extraction by microwave Measurement: Spectrometric Method	EPA 3051 A SM 3112 B
Air Flow Measurement (Air Sampling Pump) Flow Rate: (0.2-5) Liters/minute	Measurement Error Experiment	TS EN 1359; 7.1.3.2 Comparative Method
Air Flow Measurement (Air Sampling Pump) Flow Rate: (5-300) Liters/minute	Measurement Error Experiment	TS EN 1359; 7.1.3.2 Comparative Method

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 Test TS EN ISO/IEC 17025 AB-0095-T	<p>HALIÇ ÇEVRE TEKNOLOJİLERİ Mühendislik Müşavirlik Turizm Ve Sağlık Hizmetleri Ticaret Pazarlama Ltd. Şti.</p> <p>Accreditation Nr: AB-0095-T Revision Nr: 022 Date: 10.01.2022</p>
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Tested Materials / Products	Name of Test	Testing Method (National, International standards, in house methods)
Magnetic Field Gauss Measurement	Gauss Measurement (0-30000 G)	In-House Method "TA.397.Rev.00" Magnetization Measurement

\* At the customer's on-site, temporary or mobile premises

End of Scope

**G. Banu MÜDERRİSOĞLU**  
Secretary General