

Date of sampling	29/11/2023
Reporting date	05/12/2023

Audit ID	159457	Audit firm	SGS TURKEY
Company name	EREN PERAKENDE VE TEKSTIL ANONIM SIRKETI		
Contact person	EBRU SATILMIŞ		
Type of tax – tax ID no	3430333513		
Address	OMURTAK MAH. ASFALT BOYU KUME EVLER NO:6 ULAS		
Region state province	CORLU		
Town city / village	TEKIRDAG		
Zip / Post code	59860		

Type of wastewater discharge	
Type of wastewater discharge	Indirect Discharge with Pre-treatment
Description of the discharge	Discharge to Ergene 2 OSB Wastewater Treatment Plant
[If direct discharge] Temperature of receiving water body:	NA

Type of sludge disposal pathway	
Type of sludge disposal pathway	NA

Sampler accreditation certification number (ZDHC):		8F1465016715	
Sampling affiliate		SGS TURKEY	
Sample description			
	Simple	Composite	Comments
(1) Untreated wastewater	NO	YES, 11:00-17:00	NO
(2) Effluent	NO	YES, 11:00-17:00	NO
(3) Sludge	NO	NO	NO

Internal description – Final Test Report	
Testing laboratory	SGS Turkey
Internal codification number (report number)	2404653-01
Reference sample number (sample ID)	1)Untreated wastewater 2) Effluent
Received on	30/11/2023
Analysis carried out from	30/11/2023 to 05/12/2023
Arrival temperature at lab	7,6 °C
Comments	/
Reporting date	05/12/2023

The test results relate to the tested items only.
Test reports without SGS seal and authorized signatures are invalid.

Issued in Istanbul
Signed for and on behalf of
SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.

Mesut Akpolat
Customer Services Supervisor

Murat Öztaş
Customer Services Team Leader



Notes

SGS Supervise Gözetme Etüd Kontrol Servisleri A.Ş.-Tüketici ve Perakende Laboratuvarı (Consumer and Retail) operating as ZDHC tests is accredited by TÜRKAK according to AB-690-T and ISO/IEC 17025:2017 standard.

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SGS applied shared risk decision rule.

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Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. Unless further specified in an individual contract the sample(s) retention time is 30 days.

In this Test Report tests marked (1) are included in the TURKAK Accreditation Scope of this Laboratory.

Summary of test results		
Test items	Untreated wastewater	Effluent
Conventional Parameters and Anions	-	-
Heavy Metals	-	Fulfill aspirational limit
Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers	ND	-
Anti- Microbials & Biocides	ND	-
Chlorinated Paraffins	ND	-
Chlorobenzenes & Chlorotoluenes	ND	-
Chlorophenols	ND	-
N,N-di-methylformamide (DMFa)	ND	-
Dyes – Carcinogenic or Equivalent Concern	ND	-
Dyes – Disperse (Allergenic)	ND	-
Dyes – Navy Blue Colourant	ND	-
Flame Retardants	D	-
Glycols / Glycol Ethers	ND	-
Halogenated Solvents	ND	-
Organotin Compounds	ND	-
Other / Miscellaneous Chemicals	ND	-
Perfluorinated and Polyfluorinated Chemicals (PFCs)	ND	-
Phthalates – including all other esters of ortho-phthalic acid	ND	-
Polycyclic Aromatic Hydrocarbons (PAHs)	ND	-
Restricted Aromatic Amines (Cleavable from Azo-colourants)	D	-
UV Absorbers	ND	-
VOCs	D	-

Remark (Indicated in each parameter)

ND = Not detected

D = Detected

NA = Not applicable

- =Not required to be tested

NC = Not conducted

@ = Maximum holding time exceeded

(T) = handling temperature exceeded

Test results

Wastewater

1. Conventional Parameters and Anions

Test Items	Test method	Limit			Reporting Limit	Result	Unit
		Foundational	Progressive	Aspirational		Effluent	
Wastewater Flowrate	-	-			NA	1777,3 (f)	m ³ /day

Remark

- ND = Not detected
- NA = Not applicable
- = Not required to be tested
- (f) = Parameter tested in field
- (S) = The analysis was subcontracted to xxxxx lab for testing.
- # = Non accredited parameter

2. Heavy Metals

Cr (VI): ISO 18412, USEPA 218.6, GB 7467 or IS 3025 (Part 52)

Ba, Se, Sn: USEPA 200.8, USEPA 6010 C, USEPA 6020 A or HJ 700

Sb, As, Cr, Co: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Cd: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 41) – AAS instrumental method

Cu: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 42) – AAS instrumental method

Pb: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 47) – AAS instrumental method

Ni: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11912, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 54) – AAS instrumental method

Ag: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 11907, HJ 700 or IS 3025 (Part 65)

Zn: ISO 17294, USEPA 200.8, USEPA 6010 C, USEPA 6020 A, GB 7472, GB 7475, HJ 700, IS 3025 (Part 65) or IS 3025 (Part 49) – AAS instrumental method

Hg: ISO 17294, USEPA 200.8 – SIM, USEPA 245.1, USEPA 245.7, USEPA 6020 A – SIM, HJ 597, HJ 694, IS 3025 (Part 48) – Cold vapour AAS only or IS 3025 (Part 65) – SI

Test items	CAS no.	Limit			Reporting Limit	Result	Unit
		Foundational	Progressive	Aspirational		Effluent	
Arsenic (As)	Various	Textile and Leather: 0.05	Textile and Leather: 0.01	Textile and Leather: 0.005	0.005	ND	mg/L
Cadmium (Cd)	Various	Textile and Leather: 0.1	Textile and Leather: 0.05	Textile and Leather: 0.01	0.01	ND	mg/L
Mercury (Hg)	Various	Textile and Leather: 0.01	Textile and Leather: 0.005	Textile and Leather: 0.001	0.001	ND	mg/L
Lead (Pb)	Various	Textile and Leather: 0.1	Textile and Leather: 0.05	Textile and Leather: 0.01	0.01	ND	mg/L
Chromium VI (Cr VI)	Various	Textile: 0.05 Leather: 0.15	Textile: 0.005 Leather: 0.05	Textile: 0.001 Leather: 0.02	0.001	ND	mg/L

Remark

ND = Not detected

D = Detected

NA = Not applicable

- =Not required to be tested

NC = Not conducted

@ = Maximum holding time exceeded

(T) = handling temperature exceeded

3. Alkylphenol (AP) & Alkylphenol Ethoxylates (APEOs): including all isomers

NP/OP: With reference to ISO 18857-2 (Modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS))

NPEO / OPEO: With reference to ISO 18857-2 or ASTM D7742

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Octylphenol (OP)	140-66-9/ 1806-26-4/ 27193-28-8	5	ND	µg/L
Nonylphenol (NP)	104-40-5/ 11066-49-2/ 25154- 52- 3/84852-15-3	5	ND	µg/L
Octylphenoethoxylates (OPEOs)	9002-93-1/9036-19-5/68987-90- 6	5	ND	µg/L
Nonylphenoethoxylates (NPEOs)	9016-45-9/26027-38-3/ 37205- 87- 1/68412-54-4/127087-87-0	5	ND	µg/L

1 µg/L = 0.001 ppm

4. Anti- Microbials & Biocides

o-Phenylphenol (+salts): With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Triclosan: With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Permethrin: With reference to ISO 14154:2005, USEPA 8270 E, Solvent extraction followed by GC-MS or An alternative method, without derivatization and determination by LC-MS / LC-MS/MS

Test items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
o-Phenylphenol (+salts)	90-43-7	Textile: 100	ND	µg/L
Triclosan	3380-34-5	Textile and Leather: 100	ND	µg/L
Permethrin	Various	Textile and Leather: 500	ND	µg/L

1 µg/L = 0.001 ppm

5. Chlorinated Paraffins

MCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 18219-2:2021 or Method for MCCP with GC-MS(NCI) or LC-MS/MS.

SCCPs: Preparation: With reference to USEPA 3510. Analysis: With reference to ISO 12010:2019, ISO 18219-1:2021 or Method for SCCP with GC-MS(NCI) or LC-MS/MS

Test items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
Short chain chlorinated paraffins (C10-C13)	85535-84-8	Textile and Leather: 25	ND	µg/L
Medium-chain Chlorinated Paraffins (MCCPs) (C14-C17)	85535-85-9	Textile and Leather: 500	ND	µg/L

1 µg/L = 0.001 ppm

6. Chlorobenzenes & Chlorotoluenes

With reference to USEPA 8260 D, USEPA 8270 E, Purge and Trap, Headspace or Dichloromethane extraction followed by GC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Monochlorobenzenes	108-90-7	0.2	ND	µg/L
1,2-Dichlorobenzene	95-50-1	0.2	ND	µg/L
1,3-Dichlorobenzene	541-73-1	0.2	ND	µg/L
1,4-Dichlorobenzene	106-46-7	0.2	ND	µg/L
1,2,3-Trichlorobenzene	87-61-6	0.2	ND	µg/L
1,2,4-Trichlorobenzene	120-82-1	0.2	ND	µg/L
1,3,5-Trichlorobenzene	108-70-3	0.2	ND	µg/L
1,2,3,4-Tetrachlorobenzene	634-66-2	0.2	ND	µg/L
1,2,3,5-Tetrachlorobenzene	634-90-2	0.2	ND	µg/L
1,2,4,5-Tetrachlorobenzene	95-94-3	0.2	ND	µg/L
Pentachlorobenzene	608-93-5	0.2	ND	µg/L
Hexachlorobenzene	118-74-1	0.2	ND	µg/L
2-Chlorotoluene	95-49-8	0.2	ND	µg/L
3-Chlorotoluene	108-41-8	0.2	ND	µg/L
4-Chlorotoluene	106-43-4	0.2	ND	µg/L
2,3-Dichlorotoluene	32768-54-0	0.2	ND	µg/L
2,4-Dichlorotoluene	95-73-8	0.2	ND	µg/L
2,5-Dichlorotoluene	19398-61-9	0.2	ND	µg/L
2,6-Dichlorotoluene	118-69-4	0.2	ND	µg/L
3,4-Dichlorotoluene	95-75-0	0.2	ND	µg/L
3,5-Dichlorotoluene	25186-47-4	0.2	ND	µg/L
2,3,4-Trichlorotoluene	7359-72-0	0.2	ND	µg/L
2,3,6-Trichlorotoluene	2077-46-5	0.2	ND	µg/L
2,4,5-Trichlorotoluene	6639-30-1	0.2	ND	µg/L
2,4,6-Trichlorotoluene	23749-65-7	0.2	ND	µg/L
3,4,5-Trichlorotoluene	21472-86-6	0.2	ND	µg/L
2,3,4,5-Tetrachlorotoluene	76057-12-0	0.2	ND	µg/L

2,3,5,6-Tetrachlorotoluene	29733-70-8	0.2	ND	µg/L
2,3,4,6-Tetrachlorotoluene	875-40-1	0.2	ND	µg/L
Pentachlorotoluene	877-11-2	0.2	ND	µg/L

1 µg/L = 0.001 ppm

7. Chlorophenols

With reference to BS EN 12673-1999, USEPA 8270 E or Solvent extraction, derivatization with KOH, acetic anhydride followed by GC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
2-Chlorophenol	95-57-8	0.5	ND	µg/L
3-Chlorophenol	108-43-0	0.5	ND	µg/L
4-Chlorophenol	106-48-9	0.5	ND	µg/L
2,3-Dichlorophenol	576-24-9	0.5	ND	µg/L
2,4-Dichlorophenol	120-83-2	0.5	ND	µg/L
2,5-Dichlorophenol	583-78-8	0.5	ND	µg/L
2,6-Dichlorophenol	87-65-0	0.5	ND	µg/L
3,4-Dichlorophenol	95-77-2	0.5	ND	µg/L
3,5-Dichlorophenol	591-35-5	0.5	ND	µg/L
2,3,4-Trichlorophenol	15950-66-0	0.5	ND	µg/L
2,3,5-Trichlorophenol	933-78-8	0.5	ND	µg/L
2,3,6-Trichlorophenol	933-75-5	0.5	ND	µg/L
2,4,5-Trichlorophenol	95-95-4	0.5	ND	µg/L
2,4,6-Trichlorophenol	88-06-2	0.5	ND	µg/L
3,4,5-Trichlorophenol	609-19-8	0.5	ND	µg/L
2,3,5,6-Tetrachlorophenol	935-95-5	0.5	ND	µg/L
2,3,4,6-Tetrachlorophenol	58-90-2	0.5	ND	µg/L
2,3,4,5-Tetrachlorophenol	4901-51-3	0.5	ND	µg/L
Pentachlorophenol PCP	87-86-5	0.5	ND	µg/L

1 µg/L = 0.001 ppm

8. N,N-di-methylformamide (DMFa)

With reference to USEPA 8015 or USEPA 8270 E

Test item	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
N,N-di-methylformamide (DMFa)	68-12-2	1000 (Sample and Report only for mock leather)	ND	µg/L

1 µg/L = 0.001 ppm

9. Dyes - Carcinogenic or Equivalent Concern

With reference to Liquid extraction followed by LC-MS

Test items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
C.I. Direct Black 38	1937-37-7	500	ND	µg/L
C.I. Direct Blue 6	2602-46-2	500	ND	µg/L
C.I. Acid Red 26	3761-53-3	500	ND	µg/L
C.I. Basic Red 9	569-61-9	500	ND	µg/L
C.I. Direct Red 28	573-58-0	500	ND	µg/L
C.I. Basic Violet 14	632-99-5	500	ND	µg/L
C.I. Disperse Blue 1	2475-45-8	Textile: 500	ND	µg/L
C.I. Disperse Blue 3	2475-46-9	Textile: 500	ND	µg/L
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	500	ND	µg/L
C.I. Basic Green 4 (malachite green chloride)	569-64-2	500	ND	µg/L
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	500	ND	µg/L
C.I. Basic Green 4 (malachite green)	10309-95-2	500	ND	µg/L
Disperse Orange 11	82-28-0	Textile: 500	ND	µg/L
Basic violet 3 with >0.1% of Michler's Ketone*	548-62-9	500	ND	µg/L
C.I. Acid Violet 49	1694-09-3	500	ND	µg/L

1 µg/L = 0.001 ppm

*Reported concentration refers to the dye part only

10. Dyes - Disperse (Allergenic)

With reference to Liquid extraction followed by LC-MS

Test Items	CAS no.	Reporting Limit (Textile)	Result	
			Untreated wastewater	Unit
Disperse Yellow 1	119-15-3	50	ND	µg/L
Disperse Blue 102	12222-97-8	50	ND	µg/L
Disperse Blue 106	12223-01-7	50	ND	µg/L
Disperse Yellow 39	12236-29-2	50	ND	µg/L
Disperse Orange 37/59/76	13301-61-6	50	ND	µg/L
Disperse Brown 1	23355-64-8	50	ND	µg/L
Disperse Orange 1	2581-69-3	50	ND	µg/L
Disperse Yellow 3	2832-40-8	50	ND	µg/L
Disperse Red 11	2872-48-2	50	ND	µg/L
Disperse Red 1	2872-52-8	50	ND	µg/L
Disperse Red 17	3179-89-3	50	ND	µg/L
Disperse Blue 7	3179-90-6	50	ND	µg/L
Disperse Blue 26	3860-63-7	50	ND	µg/L
Disperse Yellow 49	54824-37-2	50	ND	µg/L
Disperse Blue 35	12222-75-2	50	ND	µg/L
Disperse Blue 124	61951-51-7	50	ND	µg/L
Disperse Yellow 9	6373-73-5	50	ND	µg/L
Disperse Orange 3	730-40-5	50	ND	µg/L
Disperse Blue 35	56524-77-7	50	ND	µg/L

1 µg/L = 0.001 ppm

11. Dyes - Navy Blue Colourant

With reference to Liquid extraction followed by LC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	
			Untreated wastewater	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	500	ND	µg/L
Component 2: C46H-30CrN10O20S2 3Na	Not Allocated	500	ND	µg/L

1 µg/L = 0.001 ppm

12. Flame retardants

Boric acid, Diboron trioxide, Disodium octaborate, Disodium tetraborate anhydrous, Tetraboron disodium heptaoxide, hydrate:

ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Others: With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

Test Items	CAS no.	Reporting Limit	Result	
			Untreated wastewater	Unit
Decabromodiphenyl ether (DecaBDE)	1163-19-5	Textile: 25 Leather: 5	ND	µg/L
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	Textile: 25 Leather: 5	ND	µg/L
Octabromodiphenyl ether (OctaBDE)	32536-52-0	Textile: 25 Leather: 5	ND	µg/L
Tris(1-aziridinylphosphine oxide) (TEPA)	545-55-1	Textile: 25 Leather: 5	ND	µg/L
Polybromobiphenyls (PBBs)	59536-65-1	Textile: 25 Leather: 5	ND	µg/L
Tris(2,3-dibromopropyl phosphate) (TRIS)	126-72-7	Textile: 25 Leather: 5	ND	µg/L
Tetrabromobisphenol A (TBBPA)	79-94-7	Textile: 25 Leather: 5	ND	µg/L
Bis(2,3-dibromopropyl) phosphate	5412-25-9	Textile: 25 Leather: 5	ND	µg/L
Hexabromocyclododecane (HBCDD)	3194-55-6	Textile: 25 Leather: 5	ND	µg/L
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	Textile: 25 Leather: 5	ND	µg/L
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	Textile: 25 Leather: 5	ND	µg/L
Decabromobiphenyl (DecaBB)	13654-09-6	Textile: 25	ND	µg/L
Dibromobiphenyls (DiBB)	Multiple	Textile: 25	ND	µg/L
Octabromobiphenyls (OctaBB)	Multiple	Textile: 25	ND	µg/L
Dibromopropylether	21850-44-2	Textile: 25	ND	µg/L
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	Textile: 25	ND	µg/L

Hexabromodiphenyl ether (HexaBDE)	36483-60-0	Textile: 25	ND	µg/L
Monobromobiphenyls (MonoBB)	Multiple	Textile: 25	ND	µg/L
Monobromodiphenylethers (MonoBDEs)	Multiple	Textile: 25	ND	µg/L
Nonabromobiphenyls (NonaBB)	Multiple	Textile: 25	ND	µg/L
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	Textile: 25	ND	µg/L
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	Textile: 25	ND	µg/L
Tribromodiphenylethers (TriBDEs)	Multiple	Textile: 25	ND	µg/L
Boric acid	10043-35-3 11113-50-1	Textile: 100*	2900 (16570)**	µg/L
Diboron trioxide	1303-86-2	Textile: 100*	2900 (9330)**	µg/L
Disodium octaborate	12008-41-2	Textile: 100*	2900 (19714)**	µg/L
Disodium tetraborate anhydrous	1303-96-4 1330-43-4	Textile: 100*	2900 (13481)**	µg/L
Tetraboron disodium heptaoxide, hydrate	12267-73-1	Textile: 100*	2900 (15498)**	µg/L
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	Textile: 25 Leather: 5	ND	µg/L
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	Textile: 25 Leather: 5	ND	µg/L

1 µg/L = 0.001 ppm

* Limit refers to elemental boron, not the salt.

**Result in term of elemental boron (Result in term of the corresponding boron salt)

13. Glycols/Glycol Ethers

With reference to USEPA 8270 E or Liquid extraction followed by LC-MS or GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Bis(2-methoxyethyl)-ether	111-96-6	50	ND	µg/L
2-ethoxyethanol	110-80-5	50	ND	µg/L
2-ethoxyethyl acetate	111-15-9	50	ND	µg/L
Ethylene glycol dimethyl ether	110-71-4	50	ND	µg/L
2-methoxyethanol	109-86-4	50	ND	µg/L
2-methoxyethylacetate	110-49-6	50	ND	µg/L
2-methoxypropylacetate	70657-70-4	50	ND	µg/L
Triethylene glycol dimethyl ether	112-49-2	50	ND	µg/L

1 µg/L = 0.001 ppm

14. Halogenated solvents

With reference to USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
1,2-Dichloroethane	107-06-2	1	ND	µg/L
Methylene chloride	75-09-2	1	ND	µg/L
Trichloroethene	79-01-6	1	ND	µg/L
Tetrachloroethene	127-18-4	1	ND	µg/L

1 µg/L = 0.001 ppm

15. Organotin compounds

TeET:

With reference to ISO 17353

Others:

With reference to ISO 17353 or Derivatization with NaB(C₂H₅)₄ followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Tricyclohexyltin (TCyHT)	Various	0.01	ND	µg/L
Tripopyltin (TPT)	Various	0.01	ND	µg/L
Dipropyltin compounds (DPT)	Various	0.01	ND	µg/L
Tetrabutyltin compounds (TeBT)	Various	0.01	ND	µg/L
Tetraoctyltin compounds (TeOT)	Various	0.01	ND	µg/L
Tetraethyltin Compounds (TeET)	Various	0.01	ND	µg/L
Mono-, di- and tri-octyltin derivatives	Various	0.01	ND	µg/L
Monooctyltin (MOT)	15231-57-9	0.01	ND	µg/L
Dioctyltin (DOT)	94410-05-6, 12531-44-4	0.01	ND	µg/L
Trioctyltin (TOT)	Various	0.01	ND	µg/L
Mono-, di- and tri-methyltin derivatives	Various	0.01	ND	µg/L
Monomethyltin (MMT)	Various	0.01	ND	µg/L
Dimethyltin (DMT)	Various	0.01	ND	µg/L
Trimethyltin (TMT)	Various	0.01	ND	µg/L
Mono-, di- and tri-butyltin derivatives	Various	0.01	ND	µg/L

Monobutyltin (MBT)	1118-46-3, 78763-54-9	0.01	ND	µg/L
Dibutyltin (DBT)	1002-53-5	0.01	ND	µg/L
Tributyltin (TBT)	56573-85-4	0.01	ND	µg/L
Mono-, di- and tri-phenyltin derivatives	Various	0.01	ND	µg/L
Monophenyltin (MPHT)	Various	0.01	ND	µg/L
Diphenyltin (DPHT)	Various	0.01	ND	µg/L
Triphenyltin (TPHT)	892-20-6, 668-34-8	0.01	ND	µg/L

1 µg/L = 0.001 ppm

16. Other/Miscellaneous Chemicals

AEEA [2-(2-aminoethylamino) ethanol]: With reference to Liquid extraction followed by LC-MS/MS

Bisphenol A: With reference to Liquid extraction followed by LC-MS

Thiourea: With reference to Liquid extraction followed by LC-MS

Quinoline: With reference to Liquid extraction followed by LC-MS

Borate, zinc salt: ISO 17294, USEPA 6010 C, USEPA 6020 A, HJ 700 or IS 3025 (Part 65)

Test Items	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
AEEA [2-(2-aminoethylamino) ethanol]	111-41-1	500	ND	µg/L
Bisphenol A	80-05-7	10	ND	µg/L
Thiourea	62-56-6	50	ND	µg/L
Quinoline	91-22-5	50	ND	µg/L
Borate, zinc salt	12767-90-7	100*	B: 2900 (16724)** Zn: ND (ND)**	µg/L

1 µg/L = 0.001 ppm

* Limit refers to boron and zinc individually, not the salt.

** Result in term of elemental boron / zinc (Result in term of the corresponding boron / zinc salt)

17. Perfluorinated and Polyfluorinated Chemicals (PFCs)

PFCs:

With reference to USEPA 537:2020 followed by LC-MS(-MS)

FTOH:

With reference to BS EN 12673-1999, USEPA 8270 E or Derivatization with acetic anhydride followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Perfluoro-octane-sulfonic acid (PFOS)*	1763-23-1	0.01	ND	µg/L
Perfluoro-octanoic acid (PFOA)**	335-67-1	0.01	ND	µg/L
Perfluoro-octane-sulfon-amide (PFOSA)	754-91-6	0.01	ND	µg/L
1H,1H,2H,2H-Perfluorodecyl acrylate (8:2 FTA)	27905-45-9	1	ND	µg/L
1H,1H,2H,2H-Perfluorodecanol (8:2 FTOH)	678-39-7	1	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amido-ethanol (N-Me-FOSE)	24448-09-7	0.01	ND	µg/L
N-Ethyl-Perfluoro-octane-sulfon-amido-ethanol (N-Et-FOSE)	1691-99-2	0.01	ND	µg/L
N-Methyl-perfluoro-octane-sulfon-amide (N-Me-FOSA)	31506-32-8	0.01	ND	µg/L
N-Ethyl-perfluoro-octane-sulfon-amide (N-Et-FOSA)	4151-50-2	0.01	ND	µg/L
1H,1H,2H,2H-Perfluorodecanesulfonic acid (8:2 FTS)	39108-34-4	1	ND	µg/L
Methyl Perfluorooctanoate (Me-PFOA)	376-27-2	1	ND	µg/L
Ethyl Perfluorooctanoate (Et-PFOA)	3108-24-5	1	ND	µg/L
8:2 Fluorotelomer methacrylate (8:2 FTMA)	1996-88-9	1	ND	µg/L

1 µg/L = 0.001 ppm

 * PFOS refer to its salts/derivative including PFOS-K (CAS No.: 2795-39-3), PFOS-Li (CAS No.: 29457-72-5), PFOS-NH₄ (CAS No.: 29081-56-9), PFOS-NH(OH)₂ (CAS No.: 70225-14-8), PFOS-N(C₂H₅)₄ (CAS No.: 56773-42-3) and POSF (CAS No.: 307-35-7)

** PFOA refer to its salts including PFOA-Na (CAS No.: 335-95-5), PFOA-K (CAS No.: 2395-00-8), PFOA-Ag (CAS No.: 335-93-3), PFOA-F (CAS No.: 335-66-0) and APFO (CAS No.: 3825-26-1)

18. Phthalates – including all other esters of ortho-phthalic acid

With reference to USEPA 8270 E, ISO 18856 or Dichloromethane extraction followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	10	ND	µg/L
Dimethoxyethyl phthalate (DMEP)	117-82-8	10	ND	µg/L
Di-n-octyl phthalate (DNOP)	117-84-0	10	ND	µg/L
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	ND	µg/L
Di-iso-nonyl phthalate (DINP)	28553-12-0	10	ND	µg/L
Di-n-hexyl phthalate (DnHP)	84-75-3	10	ND	µg/L
Dibutyl phthalate (DBP)	84-74-2	10	ND	µg/L
Butyl benzyl phthalate (BBP)	85-68-7	10	ND	µg/L
Dinonyl phthalate (DNP)	84-76-4	10	ND	µg/L
Diethyl phthalate (DEP)	84-66-2	10	ND	µg/L
Di-n-propyl phthalate (DPRP)	131-16-8	10	ND	µg/L
Di-iso-butyl phthalate (DIBP)	84-69-5	10	ND	µg/L
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	ND	µg/L
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4, 68515-50-4	10	ND	µg/L
1,2-benzenedicarboxylic acid, di-C6-8 branched and linear alkyl esters, C7-rich (DIHP)	71888-89-6, 84777-06-0	10	ND	µg/L
Di-n-pentylphthalates	131-18-0	10	ND	µg/L
Diisopentylphthalates	605-50-5	10	ND	µg/L

1 µg/L = 0.001 ppm

19. Polycyclic aromatic hydrocarbons (PAHs)

With reference to DIN 38407-39, USEPA 8270 E or Solvent extraction followed by GC-MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
Benzo(a)pyrene (BaP)	50-32-8	1	ND	µg/L
Anthracene	120-12-7	1	ND	µg/L
Pyrene	129-00-0	1	ND	µg/L
Benzo(ghi)perylene	191-24-2	1	ND	µg/L
Benzo(e)pyrene	192-97-2	1	ND	µg/L
Indeno (1,2,3-cd)pyrene	193-39-5	1	ND	µg/L
Benzo(j)fluoranthene	205-82-3	1	ND	µg/L
Benzo(b)fluoranthene	205-99-2	1	ND	µg/L
Fluoranthene	206-44-0	1	ND	µg/L
Benzo(k)fluoranthene	207-08-09	1	ND	µg/L
Acenaphthylene	208-96-8	1	ND	µg/L
Chrysene	218-01-9	1	ND	µg/L
Dibenz(a,h)anthracene	53-70-3	1	ND	µg/L
Benzo(a)anthracene	56-55-3	1	ND	µg/L
Acenaphthene	83-32-9	1	ND	µg/L
Phenanthrene	85-01-8	1	ND	µg/L
Fluorene	86-73-7	1	ND	µg/L
Naphthalene	91-20-3	1	ND	µg/L

1 µg/L = 0.001 ppm

20. Restricted Aromatic Amines (Cleavable from Azo-colourants)

With reference to USEPA 8270 E or Reduction step with sodium dithionite, solvent extraction followed by GC-MS and LC-MS/MS

Test Items	CAS no.	Reporting Limit (Textile and Leather)	Result	Unit
			Untreated wastewater	
4,4'-Methylene-bis(2-chloroaniline)	101-14-4	0.1	ND	µg/L
4,4'-Diaminodiphenylmethane	101-77-9	0.1	ND	µg/L
4,4'-Oxydianiline	101-80-4	0.1	ND	µg/L
4-Chloroaniline	106-47-8	0.1	0,2	µg/L
3,3'-Dimethoxybenzidine	119-90-4	0.1	ND	µg/L
3,3'-Dimethylbenzidine	119-93-7	0.1	ND	µg/L
p-Cresidine	120-71-8	0.1	ND	µg/L
2,4,5-Trimethylaniline	137-17-7	0.1	ND	µg/L
4,4'-Thiodianiline	139-65-1	0.1	ND	µg/L
4-Aminoazobenzene	60-09-3	0.1	ND	µg/L
2,4-Diaminoanisole	615-05-4	0.1	ND	µg/L
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	0.1	ND	µg/L
2,6-Xylidine	87-62-7	0.1	ND	µg/L
o-Anisidine	90-04-0	0.1	ND	µg/L
2-Naphthylamine	91-59-8	0.1	ND	µg/L
3,3'-Dichlorobenzidine	91-94-1	0.1	ND	µg/L
4-Aminobiphenyl	92-67-1	0.1	ND	µg/L
Benzidine	92-87-5	0.1	ND	µg/L
o-Toluidine	95-53-4	0.1	ND	µg/L
2,4-Xylidine	95-68-1	0.1	ND	µg/L
4-Chloro-o-toluidine	95-69-2	0.1	ND	µg/L
2,4-Diaminotoluene	95-80-7	0.1	ND	µg/L
o-Aminoazotoluene	97-56-3	0.1	ND	µg/L
5-Nitro-o-toluidine	99-55-8	0.1	ND	µg/L
2-Naphthylammoniumacetate	553-00-4	0.1	ND	µg/L
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	ND	µg/L
4-chloro-o-toluidinium chloride	3165-93-3	0.1	ND	µg/L
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	ND	µg/L

1 µg/L = 0.001 ppm

21. UV Absorbers

With reference to ISO 22032, USEPA 527, USEPA 8270 E, USEPA 8321 B or Dichloromethane extraction followed by GC-MS or LC-MS(-MS)

Test Items	CAS no.	Reporting Limit (Textile)	Result	Unit
			Untreated wastewater	
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	100	ND	µg/L
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	100	ND	µg/L
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7	100	ND	µg/L
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	ND	µg/L

1 µg/L = 0.001 ppm

22. Volatile organic compounds (VOCs)

Benzene: With reference to ISO 11423-1, ISO 20595, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

m-cresol / o-cresol / p-cresol: With reference to BS EN 12637-1999, ISO 11423-1, USEPA 8270 E, Purge and Trap or Headspace followed by GC-MS

Xylene: With reference to ISO 11423-1, USEPA 8260 D, Purge and Trap or Headspace followed by GC-MS

Toluene: With reference to ISO 11423-1, USEPA 8260 D or HJ 1067

Test Items	CAS no.	Reporting Limit	Result	Unit
			Untreated wastewater	
Benzene	71-43-2	Textile and Leather: 1	ND	µg/L
Xylene	1330-20-7	Textile: 1	ND	µg/L
o-cresol	95-48-7	Textile and Leather: 1	ND	µg/L
p-cresol	106-44-5	Textile and Leather: 1	31	µg/L
m-cresol	108-39-4	Textile and Leather: 1	ND	µg/L
Toluene	108-88-3	Textile: 1 (Sample and Report only for mock leather)	ND	µg/L

1 µg/L = 0.001 ppm

Remark

ND = Not detected

NA = Not applicable

- = Not required to be tested

(S) = The analysis was subcontracted to xxxxx lab for testing.

= Non accredited parameter

PIPING PLAN



SAMPLING PHOTOS

UNTREATED WASTEWATER

GPS Data: 41°13'27"N 27°43'14"E

SAMPLING LOCATION, CLOSE-UP VIEW



SAMPLING LOCATION, FAR VIEW



EFFLUENT

GPS Data: 41°13'27"N 27°43'14"E

SAMPLING LOCATION, CLOSE-UP VIEW



SAMPLING LOCATION, FAR VIEW



REGULATORY REQUIREMENTS TURKEY LOCAL DISCHARGE REGULATION
TEXTILE INDUSTRY WASTEWATER DISCHARGE STANDARDS OF THE RECEIVING ENVIRONMENT

ERGENE 2 ORGANİZE SANAYİ BÖLGESİ ATIKSU ARITMA TESİSİ		
TASARIMA ESAS ATIKSU KARAKTERİ TABLOSU		
PARAMETRE	BİRİM	DEĞER
Kimyasal Oksijen İhtiyacı (KOl)	mg/lit	1500
Biokimyasal Oksijen İhtiyacı (BOİ)	mg/lit	700
Aşkıda Katı Madde (AKM)	mg/lit	500
Yağ ve Gres	mg/lit	250
Katman ve petrol kökenli yağlar	mg/lit	50
Toplam Kjeldahl Azotu (TKN)	mg/lit	60
Toplam Fosfor (TP)	mg/lit	5
pH	mg/lit	6 - 10
Toplam Krom (Cr)	mg/lit	5
Toplam Siyanür (Cn)	mg/lit	10
Toplam Sülfür	mg/lit	2
Sülfat (SO ₄)	mg/lit	1700
Fenol	mg/lit	20
Serbest Klor	mg/lit	5
Arsenik	mg/lit	3
Toplam Kurşun	mg/lit	3
Toplam Kadmiyum	mg/lit	2
Toplam Civa	-	0,2
Toplam Bakır	-	2
Toplam Nikel	mg/lit	5
Toplam Çinko		10
Toplam Kalay		5
Toplam Gümüş		5
Klorür		10000
İlenk (Pb, Co)		1000
Sıcaklık (°C)		35

*** End of Report ***