

LAB REPORT

Report number	(7325)087-0055		
Date of sampling (dd/mm/yyyy)	21/03/2025		
Date of report (dd/mm/yyyy)	16/04/2025		
Factory company name	AL-KARAM TEXTILE MILLS		
Factory address	HT-11 LANDHI INDUSTRIAL AREA, KARACHI, SINDH, PAKISTAN.		
Discharge type	Direct Discharge		
Discharge destination name & address	Discharge to Municipal Drain		
Average total industrial wastewater generated	≥15 m ³ per day	Manufacturing process type	Textile
Onsite ETP / Pretreatment	Yes	Homogenization Tank & Average Holding Time	Yes (raw), >12h
ZDHC sampler accreditation certification number	ZDHC-A-22-E-C001068-R2649-F001D		
Sample description & Sample collection method			
Untreated wastewater (raw)	I001, dark blue liquid, composite sample at 10:15, 11:15, 12:15, 13:15, 14:15, 15:15, 16:15		
Discharged wastewater (effluent)	I002, light blue liquid, composite sample at 10:30, 11:30, 12:30, 13:30, 14:30, 15:30, 16:30		
Sludge	I003, black solid, composite sample at 14:50		
Local legal data			
Local legal standard name & number [a]	NO.EPA/TECH/739/2014, GOVERNMENT OF SINDH ENVIRONMENT PROTECTION AGENCY: ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS		
Parameters (ZDHC WWG V2.2, Table 2 & 3) meeting local regulation [a]	Meet		
Discharge permit provided	Yes		
ZDHC overall results			
Wastewater MRSL	Not detected		
Wastewater metals	Meet aspirational limit		
Wastewater conventional and anions	Meet foundational limit		
Sludge disposal pathway	A	Sludge	Sample and report only

Internal Description	
Sample reference number	(7325)087-0055
Date & time of the beginning of sampling	21/03/2025, 10:00
Date & time of the end of sampling	21/03/2025, 17:00
Sample received date	21/03/2025
Testing period	From 28/03/2025 to 16/04/2025
Sample holding time exceeded	Yes
Sample temperature when received from lab	7.8 °C
Comments	Parameters exceeded sample holding time: (Wastewater) E.coli (exceeded 24h), Colour (exceeded 48h), Sulphite (exceeded 48h), BOD (exceeded 48h)
General enquiry and invoicing	Muhammad Tahir muhammad.tahir@bureauveritas.com & (+92) 300-0540974
Technical enquiry	Muhammad Umar Kazam Ali muhammad.umar-kazam-ali@bureauveritas.com & (+92) 300-0540868
For and on behalf of	Bureau Veritas Consumer Product Services Pakistan Pvt. Ltd 191-S QIE AREA, KOT LAKHPAT TOWNSHIP, LAHORE, PAKISTAN
	
	Muhammad Saifullah (Sr. Lab Manager)

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Summary of test results

Wastewater / MRSL - Test Items	Raw I001
AP and APEOs	ND
Antimicrobials and Biocides ^(S1)	ND
Chlorinated Paraffins ^(S1)	ND
Chlorobenzenes and Chlorotoluenes	ND
Chlorophenols	ND
DMFa	ND
Dyes-Carcinogenic or Equivalent Concern	ND
Dyes-Disperse (Allergenic)	ND
Dyes-Navy Blue Colourant	NA
Flame Retardants ^(S1)	ND
Glycols / Glycol Ethers	ND
Halogenated Solvents	ND
Organotin Compounds	ND
Other / Miscellaneous Chemicals ^(S1)	ND
PFCs ^(S1)	ND
Phthalates	ND
PAHs	ND
Restricted Aromatic Amines	ND
UV Absorbers ^(S1)	ND
VOC	ND

Summary of test results

Wastewater / Metals - Test Items	Effluent I002
Antimony	Aspirational
Chromium (VI)	Aspirational
Barium	Report only
Selenium	Report only
Tin	Report only
Arsenic	Aspirational
Total Chromium	Aspirational
Cobalt	Aspirational
Cadmium	Aspirational
Copper	Aspirational
Lead	Aspirational
Nickel	Aspirational
Silver	Aspirational
Zinc	Aspirational
Mercury	Aspirational
Wastewater / Conventional & Anions - Test Items	Effluent I002
pH [f]	Aspirational
Temperature difference [f]	Aspirational
E.coli ^(S2) @	Aspirational
Colour@	Foundational
Persistent foam [f]	Aspirational
Wastewater flowrate [f]	Report only
Ammonium-Nitrogen	Foundational
AOX	Foundational
BOD5@	Progressive
COD	Progressive
DO [f]	Aspirational
Oil & Grease	Progressive
Total Phenols	Aspirational
Total Chlorine [f]	Aspirational
TDS	Report only
Total Nitrogen	Foundational
Total Phosphorus	Aspirational
TSS	Foundational
Chloride	Report only
Cyanide, total	Aspirational
Sulphate	Report only
Sulphide	Aspirational
Sulphite@	Aspirational

Summary of test results

Sludge Disposal Pathway = A

Sludge / Sludge Parameters - Test Items	Sludge I003
AP and APEOs	Report only
PAHs	Report only
Chlorotoluenes	Report only
Antimony	NA
Arsenic	NA
Barium	NA
Cadmium	NA
Cobalt	NA
Copper	NA
Lead	NA
Nickel	NA
Selenium	NA
Silver	NA
Zinc	NA
Total Chromium	NA
Chromium (VI)	NA
Mercury	NA
pH	NA
Fecal Coliform	NA
% Solids	Report only
Paint Filter Test	NA
Cyanide	NA

Sludge flux and/or sludge flow data: NA

Remark (indicated in each parameter)		
ND	=	Not detected (below lab reporting limit)
D	=	Detected (above lab reporting limit)
Meet	=	(Sludge) Meet sludge disposal pathway limit
Not meet	=	(ZDHC) Not meet foundational limit, (Sludge) Not meet sludge disposal pathway limit
Foundational	=	Meet foundational limit
Progressive	=	Meet progressive limit
Aspirational	=	Meet aspirational limit
Report only	=	Parameter is for report only, please refer to the data
[a]	=	The local legal standard name and legal standard number is referenced to discharge permit (or contractual agree by CETP) that provided by company
(f)	=	Parameter tested in field
(T)	=	Handling temperature exceeded
@	=	Maximum holding time exceeded
*	=	See comment
(S1)	=	Analysis was subcontracted for testing - BV CPS TEST LABORATUVARLARI LTD. STI.
(S2)	=	Analysis was subcontracted for testing - Food & Biotechnology Research Centre (FBRC)

1) Test result - Wastewater / MRSL

1A) AP and APEOs: including all isomers

Internal method with reference to ISO 18857-2, modified dichloromethane extraction

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
NPEO	Multiple 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	5	5	ND			
NP, mixed isomers	Multiple 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3	5	5	ND			
OPEO	Multiple 9002-93-1, 9036-19-5, 68987-90-6	5	5	ND			
OP, mixed isomers	Multiple 140-66-9, 1806-26-4, 27193-28-8	5	5	ND			

1B) Anti-Microbials & Biocides

USEPA 8270E Solvent extraction, followed by GC-MS ISO 14154:2005 An alternate method, without derivatisation and determination by LCMS/LCMSMS, is also possible(Triclosan & Permethrin)

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
o-Phenylphenol (+salts)	90-43-7	100	100	ND			
Triclosan	3380-34-5	100	100	ND			
Permethrin	Multiple 52645-53-1	500	500	ND			

1C) Chlorinated Parafins

Preparation: EPA 3510, Analysis: ISO18219-2:2021 Method for MCCP wit GC-MS(NCI) or LC-MS/MS

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
MCCPs (C14-C17)	85535-85-9	500	500	ND			
SCCPs (C10-C13)	85535-84-8	25	25	ND			

1D) Chlorobenzenes and Chlorotoluenes

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
1,2-dichlorobenzene	95-50-1	0.2	0.2	ND			
Other isomers of mono-, di-, tri-, tetra-, penta-, and hexa-chlorobenzene and mono-, di-, tri-, tetra-, and penta- chlorotoluene	Multiple 108-90-7, 541-73-1, 106-46-7, 87-61-6, 120-82-1, 108-70-3, 634-66-2, 634-90-2, 95-94-3, 608-93-5, 118-74-1, 95-49-8, 108-41-8, 106-43-4, 32768-54-0, 95-73-8, 19398-61-9, 118-69-4, 95-75-0, 25186-47-4, 7359-72-0, 2077-46-5, 6639-30-1, 23749-65-7, 21472-86-6, 1006-32-2, 875-40-1, 1006-31-1, 877-11-2	0.2	0.2	ND			

1E) Chlorophenols

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
2-chlorophenol	95-57-8	0.5	0.5	ND			
2,3-dichlorophenol	576-24-9	0.5	0.5	ND			
2,3,4-trichlorophenol	15950-66-0	0.5	0.5	ND			
2,3,5-trichlorophenol	933-78-8	0.5	0.5	ND			
2,3,6-trichlorophenol	933-75-5	0.5	0.5	ND			
2,4-dichlorophenol	120-83-2	0.5	0.5	ND			
2,4,5-trichlorophenol	95-95-4	0.5	0.5	ND			
2,4,6-trichlorophenol	88-06-2	0.5	0.5	ND			
2,5-dichlorophenol	583-78-8	0.5	0.5	ND			
2,6-dichlorophenol	87-65-0	0.5	0.5	ND			
3-chlorophenol	108-43-0	0.5	0.5	ND			
3,4-dichlorophenol	95-77-2	0.5	0.5	ND			
3,4,5-trichlorophenol	609-19-8	0.5	0.5	ND			
3,5-dichlorophenol	591-35-5	0.5	0.5	ND			
4-chlorophenol	106-48-9	0.5	0.5	ND			
Pentachlorophenol (PCP)	87-86-5	0.5	0.5	ND			
2,3,5,6-tetrachlorophenol	935-95-5	0.5	0.5	ND			
2,3,4,6-tetrachlorophenol	58-90-2	0.5	0.5	ND			
2,3,4,5-tetrachlorophenol	4901-51-3	0.5	0.5	ND			

1F) N,N-di-methylformamide (DMFa)

Internal method with reference to EPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Dimethyl formamide; N,N-dimethylformamide (DMFa)	68-12-2	1000	1000	ND			

1G) Dyes - Carcinogenic or Equivalent Concern

Internal method with reference to DIN 54231

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	500	500	ND			
C.I. Acid Red 26	3761-53-3	500	500	ND			
C.I. Acid Violet 49	1694-09-3	500	500	ND			
C.I. Basic Blue 26 with Michler's Ketone >0.1%	2580-56-5	500	500	ND			
C.I. Basic Green 4 (Malachite Green Chloride)	569-64-2	500	500	ND			
C.I. Basic Green 4 (Malachite Green Oxalate)	2437-29-8	500	500	ND			
C.I. Basic Green 4 (Malachite Green)	10309-95-2	500	500	ND			
C.I. Basic Red 9	569-61-9	500	500	ND			
C.I. Basic Violet 14	632-99-5	500	500	ND			
C.I. Direct Black 38	1937-37-7	500	500	ND			
C.I. Direct Blue 6	2602-46-2	500	500	ND			
C.I. Direct Red 28	573-58-0	500	500	ND			
C.I. Disperse Blue 1	2475-45-8	500	500	ND			
C.I. Disperse Blue 3	2475-46-9	500	500	ND			
C.I. Disperse Orange 11	82-28-0	500	500	ND			

1H) Dyes - Disperse (Allergenic)

Internal method with reference to DIN 54231

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Disperse Blue 102	12222-97-8	50	50	ND			
Disperse Blue 106	12223-01-7	50	50	ND			
Disperse Blue 124	61951-51-7	50	50	ND			
Disperse Blue 26	3860-63-7	50	50	ND			
Disperse Blue 35	12222-75-2	50	50	ND			
Disperse Blue 35	56524-77-7	50	50	ND			
Disperse Blue 7	3179-90-6	50	50	ND			
Disperse Brown 1	23355-64-8	50	50	ND			
Disperse Orange 1	2581-69-3	50	50	ND			
Disperse Orange 3	730-40-5	50	50	ND			
Disperse Orange 37/59/76	13301-61-6	50	50	ND			
Disperse Red 1	2872-52-8	50	50	ND			
Disperse Red 11	2872-48-2	50	50	ND			
Disperse Red 17	3179-89-3	50	50	ND			
Disperse Yellow 1	119-15-3	50	50	ND			
Disperse Yellow 3	2832-40-8	50	50	ND			
Disperse Yellow 39	12236-29-2	50	50	ND			
Disperse Yellow 49	54824-37-2	50	50	ND			
Disperse Yellow 9	6373-73-5	50	50	ND			

1I) Dyes - Navy Blue Colourant

Internal method with reference to DIN 54231; Liquid Extraction, LC/MS

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	NA	NA	NA			
Component 2: C46H-30CrN10O20S2 3Na	Not allocated						

1J) Flame Retardants

Flame Retardants Reference to USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Boric acid	10043-35-3, 11113-50-1	500	500	ND			
Diboron trioxide	1303-86-2	500	500	ND			
Disodium octaborate	12008-41-2	500	500	ND			
Disodium tetraborate, anhydrous	1303-96-4, 1330-43-4	500	500	ND			
Tetraboron disodium heptaoxide, hydrate	12267-73-1	500	500	ND			
Hexabromocyclodecane (HBCDD)	3194-55-6	25	25	ND			
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	25	25	ND			
Polybromobiphenyls (PBB)	59536-65-1	25	25	ND			
Monobromobiphenyls (MonoBB)	Multiple	25	25	ND			
Monobromodiphenylethers (MonoBDEs)	Multiple	25	25	ND			
Dibromobiphenyls (DiBB)	Multiple	25	25	ND			
Dibromopropylether	21850-44-2	25	25	ND			
Tribromophenylethers (TriBDEs)	Multiple	25	25	ND			
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	25	25	ND			
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	25	25	ND			
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	25	25	ND			
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	25	25	ND			
Octabromobiphenyls (OctaBB)	Multiple	25	25	ND			
Octabromodiphenyl ether (OctaBDE)	32536-52-0	25	25	ND			
Nonabromobiphenyls (NonaBB)	Multiple	25	25	ND			
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	25	25	ND			
Decabromobiphenyl (DecaBB)	13654-09-6	25	25	ND			
Decabromodiphenyl ether (DecaBDE)	1163-19-5	25	25	ND			
Tetrabromobisphenol A (TBBPA)	79-94-7	25	25	ND			
Bis(2,3-dibromopropyl) phosphate (BDBPP)	5412-25-9	25	25	ND			
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	25	25	ND			
Tris(1-aziridinyl) phosphine oxide (TEPA)	545-55-1	25	25	ND			
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	25	25	ND			
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	25	25	ND			
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	25	25	ND			

Footnote for boron flame retardant: Limit refers to the total elemental boron via ICP. If the total elemental boron content is higher than 500 µg/L, then all five boron flame retardant are non-conformant.

1K) Glycols / Glycol Ethers

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
2-ethoxyethanol	110-80-5	50	50	ND			
2-ethoxyethyl acetate	111-15-9	50	50	ND			
2-methoxyethanol	109-86-4	50	50	ND			
2-methoxyethylacetate	110-49-6	50	50	ND			
2-methoxypropylacetate	70657-70-4	50	50	ND			
Bis(2-methoxyethyl)-ether	111-96-6	50	50	ND			
Ethylene glycol dimethyl ether	110-71-4	50	50	ND			
Triethylene glycol dimethyl ether	112-49-2	50	50	ND			

1L) Halogenated Solvents

Internal method with reference to USEPA 8260D

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
1,2-dichloroethane	107-06-2	1	1	ND			
Methylene chloride	75-09-2	1	1	ND			
Tetrachloroethylene	127-18-4	1	1	ND			
Trichloroethylene	79-01-6	1	1	ND			

1M) Organotin Compounds

Internal method with reference to ISO 17353

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Dipropyltin compounds (DPT)	Multiple 867-36-7	0.01	0.01	ND			
Mono, di-, and tri-butyltin derivatives	Multiple 1118-46-3, 1461-22-9	0.01	0.01	ND			
Mono, di-, and tri-methyltin derivatives	Multiple 993-16-8, 753-73-1, 1066-45-1	0.01	0.01	ND			
Mono, di-, and tri-octyltin derivatives	Multiple 3091-25-6, 3542-36-7, 2587-76-0	0.01	0.01	ND			
Mono, di-, and tri-phenyltin derivatives	Multiple 1124-19-2, 1135-99-5, 639-58-7	0.01	0.01	ND			
Tetrabutyltin compounds (TeBT)	Multiple 1461-25-2	0.01	0.01	ND			
Tetraethyltin compounds (TeET)	Multiple 597-64-8	0.01	0.01	ND			
Tetraoctyltin compounds (TeOT)	Multiple 3590-84-9	0.01	0.01	ND			
Tricyclohexyltin (TCyHT)	Multiple 3091-32-5	0.01	0.01	ND			
Tripropyltin compounds (TPT)	Multiple 2279-76-7	0.01	0.01	ND			

1N) Other / Miscellaneous Chemicals

AEEA & Thiourea: Liquid extraction, LC-MS/LCMSMS; Bisphenol A: Internal method, Liquid extraction, LC-MS; Quinoline: Internal method with reference to DIN 54231, Liquid extraction, LC-MS; Borate, zinc salt: Determined as total boron and total zinc via ICP with reference to ISO 17294-2

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	500	500	ND			
Bisphenol A	80-05-7	10	10	ND			
Borate (Borate, zinc salt)	12767-90-7	100	100	ND			
Zinc salt (Borate, zinc salt)		100	100	ND			
Quinoline	91-22-5	50	50	ND			
Silica (particles of respirable size)	14464-46-1	NA	NA	NA			
Thiourea	62-56-6	50	50	ND			

Footnote for borate, zinc salt: Limit refers to boron and zinc individually, not the salt. Total boron and total zinc values should be less than 100 µg/L to be conformant. When total boron is >100 µg/L and total zinc is <100 µg/L (or vice versa), the sample is still conformant.

10) Perfluorinated and Polyfluorinated Chemicals (PFCs)

Reference to PFCs: EPA 537:2020 / FTOH: BS / EN 12673-1999 /EPA 8270,
PFCs: LC-MSMS / FTOH: GC-MS

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Perfluorooctane sulfonate (PFOS) and related substances	Multiple 1763-23-1	0.01	0.01	ND			
Perfluorooctanoic acid (PFOA) and related substances	Multiple 335-67-1	1	1	ND			

1P) Phthalates - including all other esters of ortho-phthalic acid

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
1,2-benzenedicarboxylic acid, di-C6-8 branched and linear alkyl esters, C7-rich (DIHP)	71888-89-6/ 84777-06-0	10	10	ND			
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP)	68515-42-4/ 68515-50-4	10	10	ND			
Bis(2-methoxyethyl)phthalate (DMEP)	117-82-8	10	10	ND			
Butyl benzyl phthalate (BBP)	85-68-7	10	10	ND			
Di-cyclohexyl phthalate (DCHP)	84-61-7	10	10	ND			
Di-iso-decyl phthalate (DIDP)	26761-40-0	10	10	ND			
Di-iso-octyl phthalate (DIOP)	27554-26-3	10	10	ND			
Di-iso-butyl phthalate (DIBP)	84-69-5	10	10	ND			
Di-iso-nonyl phthalate (DINP)	28553-12-0	10	10	ND			
Di-n-hexyl phthalate (DnHP)	84-75-3	10	10	ND			
Di-n-octyl phthalate (DNOP)	117-84-0	10	10	ND			
Di-n-pentylphthalates	131-18-0	10	10	ND			
Di-n-propyl phthalate (DPRP)	131-16-8	10	10	ND			
Di(ethylhexyl) phthalate (DEHP)	117-81-7	10	10	ND			
Dibutyl phthalate (DBP)	84-74-2	10	10	ND			
Diethyl phthalate (DEP)	84-66-2	10	10	ND			
Diisopentylphthalates	605-50-5	10	10	ND			
Dinonyl phthalate (DNP)	84-76-4	10	10	ND			

1Q) Polycyclic Aromatic Hydrocarbons (PAHs)

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Acenaphthene	83-32-9	1	1	ND			
Acenaphthylene	208-96-8	1	1	ND			
Anthracene	120-12-7	1	1	ND			
Benzo[a]anthracene	56-55-3	1	1	ND			
Benzo[a]pyrene	50-32-8	1	1	ND			
Benzo[b]fluoranthene	205-99-2	1	1	ND			
Benzo[e]pyrene	192-97-2	1	1	ND			
Benzo[ghi]perylene	191-24-2	1	1	ND			
Benzo[j]fluoranthene	205-82-3	1	1	ND			
Benzo[k]fluoranthene	207-08-9	1	1	ND			
Chrysene	218-01-9	1	1	ND			
Dibenz[a,h]anthracene	53-70-3	1	1	ND			
Fluoranthene	206-44-0	1	1	ND			
Fluorene	86-73-7	1	1	ND			
Indeno[1,2,3-cd]pyrene	193-39-5	1	1	ND			
Naphthalene	91-20-3	1	1	ND			
Phenanthrene	85-01-8	1	1	ND			
Pyrene	129-00-0	1	1	ND			

1R) Restricted Aromatic Amines (Cleavable from Azo-colourants)

Internal method with reference to EN ISO 14362-1, EN ISO 14362-3

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
2-naphthylamine	91-59-8	0.1	0.1	ND			
2-naphthylammoniumacetate	553-00-4	0.1	0.1	ND			
2,4-xylidine	95-68-1	0.1	0.1	ND			
2,4,5-trimethylaniline	137-17-7	0.1	0.1	ND			
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.1	0.1	ND			
2,6-xylidine	87-62-7	0.1	0.1	ND			
3',3-dichlorobenzidine	91-94-1	0.1	0.1	ND			
3,3-dimethoxybenzidine	119-90-4	0.1	0.1	ND			
3,3-dimethylbenzidine	119-93-7	0.1	0.1	ND			
4-aminoazobenzene	60-09-3	0.1	0.1	ND			
4-aminodiphenyl	92-67-1	0.1	0.1	ND			
4-chloro-o-toluidine	95-69-2	0.1	0.1	ND			
4-chloro-o-toluidinium chloride	3165-93-3	0.1	0.1	ND			
4-chloroaniline	106-47-8	0.1	0.1	ND			
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	39156-41-7	0.1	0.1	ND			
4-methoxy-m-phenylenediamine	615-05-4	0.1	0.1	ND			
4-methyl-m-phenylenediamine	95-80-7	0.1	0.1	ND			
4,4-methylene-bis-(2-chloro-aniline)	101-14-4	0.1	0.1	ND			
4,4-methylenedi-o-toluidine	838-88-0	0.1	0.1	ND			
4,4-methylenedianiline	101-77-9	0.1	0.1	ND			
4,4-oxydianiline	101-80-4	0.1	0.1	ND			
4,4-thiodianiline	139-65-1	0.1	0.1	ND			
5-nitro-o-toluidine	99-55-8	0.1	0.1	ND			
6-methoxy-m-toluidine	120-71-8	0.1	0.1	ND			
Benzidine	92-87-5	0.1	0.1	ND			
o-aminoazotoluene	97-56-3	0.1	0.1	ND			
o-anisidine	90-04-0	0.1	0.1	ND			
o-toluidine	95-53-4	0.1	0.1	ND			

1S) UV Absorbers

US EPA 8270ISO 22032, USEPA 527 and USEPA 8321B.
Dichloromethane extraction GC/MS or LC/MS (-MS)

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	100	100	ND			
2-(2H-benzotriazol-2-yl)-4,6- ditertpentylphenol (UV-328)	25973-55-1	100	100	ND			
2-benzotriazol-2-yl-4,6-di-tert- butylphenol (UV-320)	3846-71-7	100	100	ND			
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	100	100	ND			



Report Number (7325)087-0055

1T) Volatile Organic Compounds (VOC)

Internal method with reference to USEPA 8260D, USEPA 8270

Test Parameters	CAS Number	Reporting Limit		Result (µg/L)			
		TEXTILE	Lab	Raw I001			
Benzene	71-43-2	1	1	ND			
m-cresol	108-39-4	1	1	ND			
o-cresol	95-48-7	1	1	ND			
p-cresol	106-44-5	1	1	ND			
Toluene	108-88-3	1	1	ND			
Xylene	1330-20-7	1	1	ND			

2) Test result - Wastewater / Metals

Heavy Metal: ISO 17294; Chromium (VI): ISO 18412

Test Parameters	Reporting limit, TEXTILE				Legal limit [#]	Result (mg/L)			
	Foundational	Progressive	Aspirational	Lab		Effluent I002			
Antimony	0.1	0.05	0.01	0.01	-	ND			
Chromium (VI)	0.05	0.005	0.001	0.001	1	ND			
Barium	Sample & report			1	1.5	ND			
Selenium	Sample & report			1	0.5	ND			
Tin	Sample & report			1	-	ND			
Arsenic	0.05	0.01	0.005	0.005	1	ND			
Total Chromium	0.2	0.1	0.05	0.05	1	ND			
Cobalt	0.05	0.02	0.01	0.01	-	ND			
Cadmium	0.1	0.05	0.01	0.01	0.1	ND			
Copper	1	0.5	0.25	0.25	1	ND			
Lead	0.1	0.05	0.01	0.01	0.5	ND			
Nickel	0.2	0.1	0.05	0.05	1	ND			
Silver	0.1	0.05	0.005	0.005	1	ND			
Zinc	5	1	0.5	0.5	5	ND			
Mercury	0.01	0.005	0.001	0.001	0.01	ND			

GOVERNMENT OF SINDH ENVIRONMENT PROTECTION AGENCY: ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS

3) Test result - Wastewater / Conventional and Anions

Test Parameters	Test Method	Reporting limit, TEXTILE				Legal limit [#]	Result		Unit
		Foundational	Progressive	Aspirational	Lab		Effluent 1002		
pH	SM 4500H	6-9			NA	6-9	8.35		pH
Temperature difference	USEA 170.1	Δ+15	Δ+10	Δ+5	NA	3	2		°C
E.coli	SM 9221B+SM9221G	126 MPN/100-ml			126	-	ND		MPN/100-ml
Colour (436 nm)	ISO 7887-B	7	5	2	NA	-	4.6		m-1
Colour (525 nm)		5	3	1	NA	-	3		
Colour (620 nm)		3	2	1	NA	-	2.7		
Persistent foam	Visual estimation	No indication of persistent foam in receiving water			NA	-	Absent		-
Wastewater flowrate	-	15 m ³ /day			NA	-	4090		m ³ /day
Ammonium-Nitrogen	SM 4500-NH ₃ F	10	1	0.5	0.5	40	3.2		mg/L
AOX	LZC390/LCK390 AOX	3	0.5	0.1	0.1	-	1.18		mg/L
BOD ₅	Internal method wrt. SM 5210-B	30	15	8	8	250	13		mg/L
COD	Internal method wrt. SM 5220-D	150	80	40	40	400	56		mg/L
DO	SM 4500-O-G	≥ 4			4	-	4.8		mg/L
Oil & Grease	Internal method wrt. USEPA 1664-B	10	2	0.5	0.5	10	1.2		mg/L

GOVERNMENT OF SINDH ENVIRONMENT PROTECTION AGENCY: ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS

3) Test result - Wastewater / Conventional and Anions (continue)

Test Parameters	Test Method	Reporting limit, TEXTILE				Legal limit [#]	Result		Unit
		Foundational	Progressive	Aspirational	Lab		Effluent 1002		
Total Phenols / Phenol Index	SM 5530-B/C	0.5	0.01	0.001	0.001	0.3	ND		mg/L
Total Chlorine	SM4500 Cl G	1			0.1	1	ND		mg/L
TDS	Internal method wrt. SM 2540-C	Sample & report			5	3500	994		mg/L
Total Nitrogen	SM 4500-N C	20	10	5	5	-	13		mg/L
Total Phosphorus	ISO 17294	3	0.5	0.1	0.1	-	ND		mg/L
TSS	Internal method wrt. SM 2540-D	50	15	5	5	400	34		mg/L
Chloride	SM 4500-Cl-B	Sample & report			1	1000	290		mg/L
Cyanide, total	APHA 4500-CN	0.2	0.1	0.05	0.05	1	ND		mg/L
Sulphate	SM 4500-SO4 E	Sample & report			3	1000	182		mg/L
Sulphide	SM 4500-S2-D	0.5	0.05	0.01	0.01	1	ND		mg/L
Sulphite	SM 4500-SO32-C	2	0.5	0.2	0.2	-	ND		mg/L

GOVERNMENT OF SINDH ENVIRONMENT PROTECTION AGENCY: ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS


**4A) Test result - Sludge / MRSL
Sludge - AP & APEOs**
Sludge Disposal Pathway = A

Internal method with reference to ASTM D7065

Test Parameters	CAS Number	Reporting Limit		Result			Unit
		TEXTILE	Lab	Sludge 1003			
NPEO	Multiple 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	0.4	0.4	ND			mg/kg
NP, mixed isomers	Multiple 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3	0.4	0.4	ND			mg/kg
OPEO	Multiple 9002-93-1, 9036-19-5, 68987-90-6	0.4	0.4	ND			mg/kg
OP, mixed isomers	Multiple 140-66-9, 1806-26-4, 27193-28-8	0.4	0.4	ND			mg/kg

Sludge - PAHs

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result			Unit
		TEXTILE	Lab	Sludge 1003			
Acenaphthene	83-32-9	0.2	0.2	ND			mg/kg
Acenaphthylene	208-96-8	0.2	0.2	ND			mg/kg
Anthracene	120-12-7	0.2	0.2	ND			mg/kg
Benzo[a]anthracene	56-55-3	0.2	0.2	ND			mg/kg
Benzo[a]pyrene (BaP)	50-32-8	0.2	0.2	ND			mg/kg
Benzo[b]fluoranthene	205-99-2	0.2	0.2	ND			mg/kg
Benzo[e]pyrene	192-97-2	0.2	0.2	ND			mg/kg
Benzo[ghi]perylene	191-24-2	0.2	0.2	ND			mg/kg
Benzo[j]fluoranthene	205-82-3	0.2	0.2	ND			mg/kg
Benzo[k]fluoranthene	207-08-9	0.2	0.2	ND			mg/kg
Chrysene	218-01-9	0.2	0.2	ND			mg/kg
Dibenz[a,h]anthracene	53-70-3	0.2	0.2	ND			mg/kg
Fluoranthene	206-44-0	0.2	0.2	ND			mg/kg
Fluorene	86-73-7	0.2	0.2	ND			mg/kg
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	0.2	ND			mg/kg
Naphthalene	91-20-3	0.2	0.2	ND			mg/kg
Phenanthrene	85-01-8	0.2	0.2	ND			mg/kg
Pyrene	129-00-0	0.2	0.2	ND			mg/kg

Sludge - Chlorotoluenes

Internal method with reference to USEPA 8270E

Test Parameters	CAS Number	Reporting Limit		Result			Unit
		TEXTILE	Lab	Sludge 1003			
Other isomers of mono-, di-, tri-, tetra-, and penta-chlorotoluene	Multiple 95-49-8, 108-41-8, 106-43-4, 32768-54-0, 95-73-8, 19398-61-9, 118-69-4/ 95-75-0/ 25186-47-4/ 7359-72-0/ 2077-46-5/ 6639-30-1/ 23749-65-7/ 1006-32-2/ 875-40-1/ 877-11-2	0.2	0.2	ND			mg/kg


4B) Test result - Sludge / Metals
Sludge Disposal Pathway = A

Internal method with reference to USEPA 3050, USEPA 3051A, USEPA 6020B; Chromium (VI): Internal method with reference to USEPA 3060A, USEPA 7196A

Test Parameters	Reporting Limit		Maximum Total Metals Limits Disposal Pathway G	Threshold Values	Result			Unit
	TEXTILE	Lab			Sludge I003			
Antimony	5	5	NA	12	NA			mg/kg
Arsenic	5	5	41	10	NA			mg/kg
Barium	200	200	500	700	NA			mg/kg
Cadmium	1	1	39	3	NA			mg/kg
Cobalt	400	400	NA	1600	NA			mg/kg
Copper	50	50	1500	200	NA			mg/kg
Lead	5	5	400	10	NA			mg/kg
Nickel	20	20	420	70	NA			mg/kg
Selenium	5	5	36	10	NA			mg/kg
Silver	50	50	NA	100	NA			mg/kg
Zinc	400	400	2800	1000	NA			mg/kg
Total Chromium	50	50	1200	100	NA			mg/kg
Chromium (VI)	20	20	50	50	NA			mg/kg
Mercury	1	1	17	1	NA			mg/kg

Test result - Leachate / Metals
Sludge Disposal Pathway = A

Leachate HM: EPA 6020A, 3051A, EPA 1311

Test Parameters	Reporting Limit	Sludge disposal pathway						Result			Unit
	Lab	A, B, C	D	E	F	G		Leachate			
Antimony	-	NA	7.8	0.6	0.6	0.6		NA			mg/L
Arsenic	-	NA	2.75	0.5	0.5	0.5		NA			mg/L
Barium	-	NA	67.5	35	35	35		NA			mg/L
Cadmium	-	NA	0.58	0.15	0.15	0.15		NA			mg/L
Cobalt	-	NA	80	80	80	80		NA			mg/L
Copper	-	NA	17.5	10	10	10		NA			mg/L
Lead	-	NA	2.75	0.5	0.5	0.5		NA			mg/L
Nickel	-	NA	11.75	3.5	3.5	3.5		NA			mg/L
Selenium	-	NA	0.75	0.5	0.5	0.5		NA			mg/L
Silver	-	NA	5	5	5	5		NA			mg/L
Zinc	-	NA	50	50	50	50		NA			mg/L
Total Chromium	-	NA	5	5	5	5		NA			mg/L
Chromium (VI)	-	NA	3.75	2.5	2.5	2.5		NA			mg/L
Mercury	-	NA	0.125	0.05	0.05	0.05		NA			mg/L

4C) Test result - Sludge / Conventional & Anion Sludge Disposal Pathway = A											
Test Parameters	Test Method	Reporting Limit	Sludge disposal pathway					Result			Unit
		Lab	A, B, C	D	E	F	G	Sludge I003			
pH	EPA SW 9045D	NA	NA	5-11	5-11	6.5-9	6.5-9	NA			-
Fecal Coliform	EPA 1681	NA	NA	NA	NA	<1000	<1000	NA			MPN/g
% Solids	EPA 160.3	NA	Sample & report					43.5			%
Paint Filter Test	EPA 9095B	NA	NA	Pass	Pass	Pass	Pass	NA			-
Cyanide	APHA 4500-CN	70	NA	85	70	70	70	NA			mg/kg

Appendix A - Discharge limit according to regulation

Government of Sindh Environment Protection Agency:

Environmental Quality Standards for Municipal & Liquid Industrial Effluents

PART-I

THE SINDH GOVT. GAZETTE EXT. JAN. 28, 2016

24

SINDH ENVIRONMENTAL QUALITY STANDARDS FOR MUNICIPAL AND LIQUID INDUSTRIAL EFFLUENTS (mg/l, UNLESS OTHERWISE DEFINED)

S. No.	Parameter	Standards		
		Into Inland Waters	Into Sewage Treatment ⁽³⁾	Into Sea ⁽¹⁾
1	2	3	4	5
1.	Temperature 40 ⁰ C or Temperature Increase *	≤3 ⁰ C	≤3 ⁰ C	≤3 ⁰ C
2.	pH value (H ⁺) .	6-9	6-9	6-9
3.	Biochemical Oxygen Demand (BOD) ₅ at 20 ⁰ C ⁽¹⁾	80	250	80**
4.	Chemical Oxygen Demand(COD) ⁽¹⁾	150	400	400
5.	Total Suspended Solids (TSS)	200	400	200
6.	Total Dissolved Solids (TDS)	3500	3500	3500
7.	Oil and Grease	10	10	10
8.	Phenolic compounds (as phenol)	0.1	0.3	0.3
9.	Chloride (as Cl ⁻)	1000	1000	SC***
10.	Fluoride (as F ⁻)	10	10	10
11.	Cyanide (as CN ⁻) total .	1.0	1.0	1.0
12.	An-ionic detergents (as MBAS) ⁽²⁾	20	20	20
13.	Sulphate (SO ₄ ²⁻)	600	1000	SC***
14.	Sulphide (S ²⁻)	1.0	1.0	1.0
15.	Ammonia (NH ₃)	40	40	40
16.	Pesticides ⁽³⁾	0.15	0.15	0.15
17.	Cadmium ⁽⁴⁾ ..	0.1	0.1	0.1
18.	Chromium (trivalent and hexavalent) ⁽⁴⁾ ..	1.0	1.0	1.0
19.	Cooper ⁽⁴⁾ ..	1.0	1.0	1.0
20.	Lead ⁽⁴⁾ ..	0.5	0.5	0.5
21.	Mercury ⁽⁴⁾ ..	0.01	0.01	0.01
22.	Selenium ⁽⁴⁾ ..	0.5	0.5	0.5
23.	Nickel ⁽⁴⁾ ..	1.0	1.0	1.0
24.	Silver ⁽⁴⁾ ..	1.0	1.0	1.0
25.	Total toxic metals	2.0	2.0	2.0
26.	Zinc	5.0	5.0	5.0
27.	Arsenic ⁽⁴⁾ ..	1.0	1.0	1.0
28.	Barium ⁽⁴⁾ ..	1.5	1.5	1.5
29.	Iron	8.0	8.0	8.0
30.	Manganese	1.5	1.5	1.5
31.	Boron ⁽⁴⁾ ..	6.0	6.0	6.0
32.	Chlorine	1.0	1.0	1.0

Appendix B - Photos of sampling points and samples (with relative time and date)

Photo of sampling point
21/03/2025, 10:10



Untreated wastewater

Photo of sample (labelled sample bottle)
21/03/2025, 16:40



Untreated wastewater

Photo of sampling point
21/03/2025, 10:35



Effluent

Photo of sample (labelled sample bottle)
21/03/2025, 16:45



Effluent

Photo of persistent foam
21/03/2025, 11:45



Effluent

Appendix B - Photos of sampling points and samples (with relative time and date) (continue)

Photo of sampling point
21/03/2025, 14:55



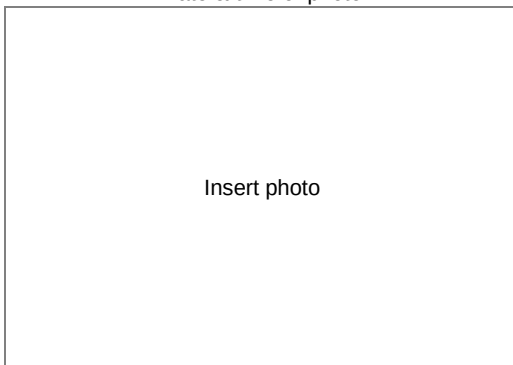
Sludge

Photo of sample (labelled sample bottle)
21/03/2025, 15:15



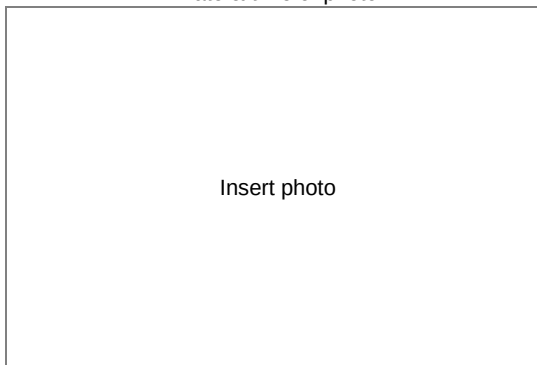
Sludge

Photo of sampling point
Date & time of photo



Incoming Water

Photo of sample (labelled sample bottle)
Date & time of photo



Incoming Water

Appendix C - Field Data Form

ZDHC Wastewater Sampling Field Data Form and Representative Sample Declaration		CPSD-AN-00613-DATA 07	
		Issue Date: February 20, 2024	
		Version No.: 1	
		Business Line: Analytical	
Attach the completed field data form in the test report.			
Facility Information			
Date of Sampling:	21. 03. 2025		
Sample Number (ZDHC Composite Sample Code):	73250870055		
Facility Name:	AL Kosam Textile Mills		
Facility Address:	HT-11 Kandhi Industrial Area		
Facility Type (tick all applicable):	☒ Dyeing and Finishing ☒ Laundry, Washing and Finishing ☒ Printing ☐ Other (please specify): ☐ Fabric Mill ☐ Natural Leather processing ☐ Synthetic Leather processing		
Discharge Type (tick applicable):	☒ Direct discharge ☐ Indirect discharge ☐ Zero liquid discharge (ZLD) ☐ with pre-treatment ☐ without pre-treatment ☒ with own ETP		
Discharge Description:	☒ Discharge to environment (e.g. river, stream, sea etc.) ☐ Sewage treatment plant ☐ Other (please specify): Municipal Drain		
Discharge Volume:	☒ $\leq 15m^3$ per day ☐ $> 15m^3$ per day		
Sample Type and Details			
Sample Type	Sample Details		
☐ Incoming Water			
☐ Untreated WW	☒ With equalisation tank (EQT) present Hydraulic Retention Time (HRT) (Hours): <u>> 12 hours</u> = volume of tank (m³) / flow rate (m³/h) If HRT > 12 h, grab sampling from EQT is allowed.		
☒ Effluent	☒ Direct ☐ Indirect Enter sampling time(s) in page 2. No field test measurements required except on client's request. ☐ Facility has WWTP ☐ Plant is in operating condition ☐ with equalisation tank (EQT) present Hydraulic Retention Time (HRT) (Hours): = volume of tank (m³) / flow rate (m³/h) If HRT > 12 h, grab sampling from EQT is allowed.		
☒ Sludge	Disposal Pathway (The pathway must be defined by the facility. If the facility cannot provide information, pathway "F" shall be assumed.) ☒ A >1000°C offsite incineration ☐ B Landfill with significant control ☐ C Building products processed >1000°C ☐ D Landfill with limited control ☐ E Incineration/ Building products processed <1000°C ☐ F Landfill with no control ☐ G Land application Sludge flux (weight/time) if applicable:		
ZDHC Wastewater Sampling - Facility Confirmation			
The wastewater samples have been collected under the facilities' normal production scale and wastewater flow rate. The sampler listed below was on-site and collected the samples. Sampling protocol for wastewater and sludge samples are in accordance with ZDHC SAP including appendix E. In no circumstances shall samples be taken during times when the production process is not running or the wastewater is diluted, for example due to heavy rainfall.			
Facility Confirmation		Sampler Information	
Facility Name:	Alkosam Textile Mills	Sampler's Name/ Email:	M. Nasir, Mofield
Facility Representative Name:	Tamveer Khan	Sampler's ZDHC Accredited No.:	ZDHC-A-21-E-001068-R2640-Facility
Facility Representative Signature and Stamp:		Sampler's Signature:	
Date:	21/3/2025	Date:	21/3/2025

Appendix C - Field Data Form (continue)

ZDHC Wastewater Sampling Field Data Form and Representative Sample Declaration										CPSD-AN-00613-DATA 07		
										Issue Date:		
										Version No.: 1		
										Business Line: Analytical		
ZDHC Wastewater Flow Device Dimensions												
Measurement (cm)	Meter	Pipe (O)	Flume (U)	Wier (V)								
Diameter												
Depth												
ZDHC Wastewater Sampling Field Testing QA/QC												
Parameter	Lab Control Sample (LCS) Known	Lab Control Sample (LCS) Measured	Accuracy (%)									
pH												
Total Chlorine												
ZDHC Wastewater Sample Collection Field Test Measurements												
Incoming Sample Point	☐ Composite Sample ☐ Grab Sample		Start Time:		Stop Time:							
Sampling Locations:	GPS coordinates:		Lat.: N / S		Long.: E / W							
Sampling Mode:	☐ Manual ☐ Autosampler - Sampling Device Description/ Owner:											
Sampling Time (Hours)	0	1	2	3	4	5	6	Average				
Recording time of discrete sample												
Colour (visual estimation):												
Untreated Sample Point	☒ Composite Sample ☐ Grab Sample		Start Time: 10:15		Stop Time: 16:15							
Sampling Locations:	GPS coordinates:		Lat.: N / S 24.8400332		Long.: E / W 67.2084364							
Sampling Mode:	☒ Manual ☐ Autosampler - Sampling Device Description/ Owner:											
Sampling Time (Hours)	0	1	2	3	4	5	6	Average				
Recording time of discrete sample	10:15	11:15	12:15	13:15	14:15	15:15	16:15					
Colour (visual estimation):	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue	Dark Blue				
Effluent Sample Point	☒ Composite Sample ☐ Grab Sample		Start Time: 10:30		Stop Time: 16:30							
Sampling Locations:	GPS coordinates:		Lat.: N / S 24.8400332		Long.: E / W 67.2084364							
Sampling Mode:	☒ Manual ☐ Autosampler - Sampling Device Description/ Owner:											
Sampling Time (Hours)	0	1	2	3	4	5	6	Average				
Recording time of discrete sample	10:30	11:30	12:30	13:30	14:30	15:30	16:30					
Temperature (°C):	WW Discharge	30	31	31	32	32	31	31	31.14			
	Receiving Water	28	29	29	30	30	29	29	29.14			
pH:		8.39	8.35	8.32	8.35	8.32	8.35	8.39	8.35			
Dissolved Oxygen (mg/L):		4.8	4.9	4.8	4.9	4.9	4.8	4.9	4.82			
Total Chlorine (mg/L):		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A			
Persistent Foam (Yes/ No):		Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No	Yes / No			
Wastewater Flow Meter (L/min):		170	169	171	171	170	171	171	170.49			
Alternate Measured Flow:	Depth (cm)	10.08										
	Velocity (cm/sec)											
Colour (visual estimation):		Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue	Light Blue			
Volume collected (L):		3.33	3.33	3.33	3.33	3.33	3.33	3.33	3.33			
Total volume collected (L):		20 Litres										
Sludge Sample Point	☐ Composite Sample ☐ Grab Sample		Start Time: 14:58		Stop Time: 15:00							
Sampling Locations:	GPS coordinates:		Lat.: N / S 24.8395558		Long.: E / W 67.2089813							
Sampling Mode:	☒ Manual ☐ Autosampler - Sampling Device Description/ Owner:											
Sampling Time (Hours)	0	1	2	3	4	5	6	Average				
Recording time of discrete sample	14:58											
Colour (visual estimation):		Black										
Comments/ Other Observations:												