



Test Report: (9323)067-0960

Report Date: March 23, 2023

Factory Company Name: Quanzhou Nanxin Bleach Dye Co.,Ltd.
 Factory Address: Quanxiu Road Fengze District Quanzhou,Fujian China

Sampling Method & Description:	I001A Untreated wastewater 1	Composite	Black liquid (High concentration)
	I001B Untreated wastewater 2	Composite	Purple liquid (Low concentration)
	I002) Effluent	Composite	Yellow liquid
	I003) Sludge	Composite	Black solid
	I004) Leachate	-	Not tested

Discharge Type: **Direct Discharge**

On-site ETP / Pretreatment: Yes Homgenization Tank & Holding Time: Yes, <12hours

Discharge Destination: Nearby river or waterbody - Jinjiang

Permit Validation Date: Dec 22, 2020 to Dec 21, 2025

Conventional, Anions & Heavy Metals Overall Category: Foundational ZDHC MRSL Parameters: Not detected

Sludge Parameters: Meet ZDHC Threshold Value

Sample Pick Up Date: March 9, 2023 Sampler Number: C74D106817272
 C74D106817263

Test Period: March 12, 2023 to March 23, 2023

Parameter(s) exceeded maximum holding time: Exceeded 24h, E.Coli for wastewater; PH and Fecal Coliform for sludge
 Exceeded 48h, Color, BOD5 and Sulfite for wastewater

Remark

The results of this report shall not be used for any regulatory compliance purposes.

Type of Process:	Textile	Average total industrial wastewater generated:	Equal or more than 15m3/day
Sludge Disposal Pathway:	Disposal Pathway C		
Type of Sludge:	Mechanically dewatered sludge "cake"		

General enquiry and invoicing:
bvcps_pyinfo@bureauveritas.com
 (86)20-22902088

Technical enquiry:
bvcps_pyinfo@bureauveritas.com
 (86)20-22902088

Report reviewed by:

Report approved by:

Andy Wang
 Manager

Nina Ren
 Senior Manager

This report is governed by, and incorporates by reference, the Conditions of Testing as posted at the date of issuance of this report at <http://www.bureauveritas.com/home/about-us/our-business/cps/about-us/terms-conditions/> and is intended for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. Measurement uncertainty is only provided upon request for accredited tests. Statements of conformity are based on simple acceptance criteria without taking measurement uncertainty into account, unless otherwise requested in writing. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence or if you require measurement uncertainty; provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Result Summary - ZDHC MRS L Wastewater Parameters

Test Items	Untreated wastewater 1	Untreated wastewater 2	Effluent
1A) AP and APEOs	ND	ND	NR
1B) Anti-Microbials & Biocides	ND	ND	
1C) Chlorinated Parafins	ND	ND	
1D) Chlorobenzenes and Chlorotoluenes	ND	ND	
1E) Chlorophenols	ND	ND	
1F) DMFa	ND	ND	
1G) Dyes - Carcinogenic or Equivalent Concern	ND	ND	
1H) Dyes - Disperse (Sensitising)	ND	ND	
1I) Dyes - Navy Blue Colourant	ND	ND	
1J) Flame Retardants	ND	ND	
1K) Glycols / Glycol Ethers	ND	ND	
1L) Halogenated Solvents	ND	ND	
1M) Organotin Compounds	ND	ND	
1N) Other / Miscellaneous Chemicals	ND	ND	
1O) PFCs	ND	ND	
1P) Phthalates	ND	ND	
1Q) PAHs	ND	ND	
1R) Restricted Aromatic Amines	ND	ND	
1S) UV Absorbers	ND	ND	
1T) VOC	ND	ND	



Test Report: (9323)067-0960

Report Date: March 23, 2023

Result Summary - ZDHC Heavy Metals, Conventional and Anions Wastewater Parameters

Test Items	Untreated wastewater 1	Untreated wastewater 2	Effluent
Antimony			Meet
Chromium (VI)			Meet
Barium			Refer to result
Selenium			Refer to result
Tin			Refer to result
Arsenic			Meet
Total Chromium			Meet
Cobalt			Meet
Cadmium			Meet
Copper			Meet
Lead			Meet
Nickel			Meet
Silver			Meet
Zinc			Meet
Mercury			Meet
pH			Meet
Temperature difference			Meet
E.coli			Meet
Colour			Meet
Persistent Foam	NR	NR	Meet
Wastewater Flowrate			Refer to result
Ammonium-Nitrogen			Meet
AOX			Meet
BOD ₅			Meet
COD			Meet
DO			Refer to result
Oil & Grease			Meet
Total Phenols / Phenol Index			Meet
Total Chlorine			Refer to result
TDS			Refer to result
Total Nitrogen			Meet
Total Phosphorus			Meet
TSS			Meet
Chloride			Refer to result
Cyanide, total			Meet
Sulfate			Refer to result
Sulfide			Meet
Sulfite			Meet



Test Report: (9323)067-0960

Report Date: March 23, 2023

Result Summary - ZDHC Sludge Parameters

Test Items	Sludge	Leachate
Antimony	ND	NR
Arsenic	ND	NR
Barium	ND	NR
Cadmium	ND	NR
Coblat	ND	NR
Copper	ND	NR
Lead	ND	NR
Nickel	ND	NR
Selenium	ND	NR
Silver	ND	NR
Total Chromium	ND	NR
Zinc	ND	NR
Chromium (VI)	ND	NR
Mercury	ND	NR
Cyanide	Refer to result	NR
pH	Refer to result	
% Solids	Refer to result	
Paint Filter Test	Refer to result	
Fecal Coliform	Refer to result	
AP and APEOs	Refer to result	
PAHs	Refer to result	
Chlorotoluenes	Refer to result	

Note / Key:

Meet	=	Meet Foundational Limit / Meet Discharge Criteria
Not Meet	=	Exceed Foundational Limit / Exceed Discharge Criteria
NR	=	Not requested / Not required
NA	=	Not applicable
D	=	Detected
ND	=	Not detected
Refer to result	=	Legal parameter(s) and/or parameter(s) requested by factory, please refer to test result



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRSL Parameters

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A	I001B	I002	I003#	I004#	Wastewater	Sludge [#]	Leachate [#]
	(µg/L)	(µg/L)	(µg/L)	(mg/kg)	(mg/L)	(µg/L)	(mg/kg)	-
1A) AP and APEOs: including all isomers								
NPEO	ND	ND	NR	ND	NR	5	0.4	-
NP, mixed isomers	ND	ND		0.8				
OPEO	ND	ND		ND				
OP, mixed isomers	ND	ND		ND				
1B) Anti-Microbials & Biocides								
o-Phenylphenol (+salts)	ND	ND	NR	NR	NR	100	-	-
Triclosan	ND	ND						
Permethrin	ND	ND						
1C) Chlorinated Parafins								
MCCPs (C14-C17)	ND	ND	NR	NR	NR	500	-	-
SCCPs (C10-C13)	ND	ND				25		
1D) Chlorobenzenes and Chlorotoluenes								
1,2-dichlorobenzene	ND	ND	NR	NR	NR	0.2	-	-
Other isomers of mono-, di-, tri-, tetra-, penta- and hexa- chlorobenzene	ND	ND		NR				
Other isomers of mono-, di-, tri-, tetra- and penta- chlorotoluene	ND	ND		ND			0.2	
1E) Chlorophenols								
2-chlorophenol	ND	ND	NR	NR	NR	0.5	-	-
3-chlorophenol	ND	ND						
4-chlorophenol	ND	ND						
2,3-dichlorophenol	ND	ND						
2,4-dichlorophenol	ND	ND						
2,5-dichlorophenol	ND	ND						
2,6-dichlorophenol	ND	ND						
3,4-dichlorophenol	ND	ND						
3,5-dichlorophenol	ND	ND						
2,3,4-trichlorophenol	ND	ND						
2,3,5-trichlorophenol	ND	ND						
2,3,6-trichlorophenol	ND	ND						
2,4,5-trichlorophenol	ND	ND						
2,4,6-trichlorophenol	ND	ND						
3,4,5-trichlorophenol	ND	ND						
2,3,5,6-tetrachlorophenol	ND	ND						
2,3,4,6-tetrachlorophenol	ND	ND						
2,3,4,5-tetrachlorophenol	ND	ND						
Pentachlorophenol (PCP)	ND	ND						
1F) N,N-di-methylformamide (DMFa)								
Dimethyl formamide;								
N,N-dimethylformamide (DMFa) ^a	ND	ND	NR	NR	NR	1000	-	-

a = Report only for mock leather

[#]Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRS� Parameters (continued)

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A (µg/L)	I001B (µg/L)	I002 (µg/L)	I003# (mg/kg)	I004# (mg/L)	Wastewater (µg/L)	Sludge# (mg/kg)	Leachate# -
1G) Dyes - Carcinogenic or Equivalent Concern								
Basic violet 3 with >0.1% of Michler's Ketone	ND	ND						
C.I. Acid Red 26	ND	ND						
C.I. Acid Violet 49	ND	ND						
C.I. Basic Blue 26 (with Michler's Ketone >0/1%)	ND	ND						
C.I. Basic Green 4 (Malachite Green Chloride)	ND	ND						
C.I. Basic Green 4 (Malachite Green Oxalate)	ND	ND						
C.I. Basic Green 4 (Malachite Green)	ND	ND						
C.I. Basic Red 9	ND	ND	NR	NR	NR	500	-	-
C.I. Basic Violet 14	ND	ND						
C.I. Direct Black 38	ND	ND						
C.I. Direct Blue 6	ND	ND						
C.I. Direct Red 28	ND	ND						
C.I. Disperse Blue 1	ND	ND						
C.I. Disperse Blue 3	ND	ND						
Disperse Orange 11	ND	ND						
1H) Dyes - Disperse (Allergenic)								
Disperse Blue 102	ND	ND						
Disperse Blue 106	ND	ND						
Disperse Blue 124	ND	ND						
Disperse Blue 26	ND	ND						
Disperse Blue 35 (CAS 12222-75-2)	ND	ND						
Disperse Blue 35 (CAS 56524-77-7)	ND	ND						
Disperse Blue 7	ND	ND						
Disperse Brown 1	ND	ND						
Disperse Orange 1	ND	ND						
Disperse Orange 3	ND	ND	NR	NR	NR	50	-	-
Disperse Orange 37/59/76	ND	ND						
Disperse Red 1	ND	ND						
Disperse Red 11	ND	ND						
Disperse Red 17	ND	ND						
Disperse Yellow 1	ND	ND						
Disperse Yellow 3	ND	ND						
Disperse Yellow 39	ND	ND						
Disperse Yellow 49	ND	ND						
Disperse Yellow 9	ND	ND						
1I) Dyes - Navy Blue Colourant								
Component 1: C39H23Cl-CrN7O12S 2Na	ND	ND	NR	NR	NR	500	-	-
Component 2: C46H-30CrN10O20S2 3Na	ND	ND						

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRSL Parameters (continued)

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A (µg/L)	I001B (µg/L)	I002 (µg/L)	I003# (mg/kg)	I004# (mg/L)	Wastewater (µg/L)	Sludge# (mg/kg)	Leachate# -
1J) Flame Retardants								
2,2-bis(bromomethyl)-1,3-propanediol (BBMP)	ND	ND						
Dis(2,3-dibromopropyl) phosphate (BIS)	ND	ND						
Decabromophenyl ether (DecaBDE)	ND	ND						
Hexabromocyclodecane (HBCDD)	ND	ND						
Octabromodiphenyl ether (OctaBDE)	ND	ND						
Pentabromodiphenyl ether (PentaBDE)	ND	ND						
Polybromobiphenyls (PBB)	ND	ND						
Tetrabromobisphenol A (TBBPA)	ND	ND						
Tris(2-chloro-1-methylethyl) phosphate (TCPP)	ND	ND						
Tris(1-aziridinyl)phosphone oxide (TEPA)	ND	ND						
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	ND	ND						
Tris(2-chloroethyl) phosphate (TCEP)	ND	ND						
Tris(2,3-dibromopropyl) phosphate (TRIS)	ND	ND				25		
Decabromobiphenyl (DecaBB)	ND	ND						
Dibromobiphenyls (DiBB)	ND	ND	NR	NR	NR		-	-
Octabromobiphenyls (OctaBB)	ND	ND						
Dibromopropylether	ND	ND						
Heptabromodiphenyl ether (HeptaBDE)	ND	ND						
Hexabromodiphenyl ether (HexaBDE)	ND	ND						
Monobromobiphenyls (MonoBB)	ND	ND						
Monobromodiphenylethers (MonoBDEs)	ND	ND						
Nonabromobiphenyls (NonaBB)	ND	ND						
Nonabromodiphenyl ether (NonaBDE)	ND	ND						
Tetrabromodiphenyl ether (TetraBDE)	ND	ND						
Tribromophenylethers (TriBDEs)	ND	ND						
Boric acid ^b	ND	ND						
Diboron trioxide ^b	ND	ND						
Disodium octaborate ^b	ND	ND				100		
Disodium tetraborate anhydrous ^b	ND	ND						
Tetraboron disodium heptaoxide, hydrate ^b	ND	ND						
1K) Glycols / Glycol Ethers								
2-ethoxyethanol	ND	ND						
2-ethoxyethyl acetate	ND	ND						
2-methoxyethanol	ND	ND						
2-methoxyethylacetate	ND	ND	NR	NR	NR	50	-	-
2-methoxypropylacetate	ND	ND						
Bis(2-methoxyethyl)-ether	ND	ND						
Ethylene glycol dimethyl ether	ND	ND						
Triethylene glycol dimethyl ether	ND	ND						
1L) Halogenated Solvents								
1,2-dichloroethane	ND	ND						
Methylene chloride	ND	ND						
Tetrachloroethylene	ND	ND	NR	NR	NR	1	-	-
Trichloroethylene	ND	ND						

b = Limit refers to elemental boron, not the salt.

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRSL Parameters (continued)

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A (µg/L)	I001B (µg/L)	I002 (µg/L)	I003# (mg/kg)	I004# (mg/L)	Wastewater (µg/L)	Sludge# (mg/kg)	Leachate# -
1M) Organotin Compounds								
Dipropyltin compounds (DPT)	ND	ND	NR	NR	NR	0.01	-	-
Mono, di-, and tri-butyltin derivatives	ND	ND						
Mono, di-, and tri-methyltin derivatives	ND	ND						
Mono, di-, and tri-octyltin derivatives	ND	ND						
Mono, di-, and tri-phenyltin derivatives	ND	ND						
Tetrabutyltin compounds (TeBT)	ND	ND						
Tripropyltin compounds (TPT)	ND	ND						
Tetraoctyltin compounds (TeOT)	ND	ND						
Tricyclohexyltin (TCyHT)	ND	ND						
Tetraethyltin compounds (TeET)	ND	ND						
1N) Other / Miscellaneous Chemicals								
AEEA [2-(2-aminoethylamino)ethanol]	ND	ND	NR	NR	NR	500	-	-
Bisphenol A	ND	ND				10		
Thiourea	ND	ND				50		
Quinoline	ND	ND				100		
Borate, zinc salt ^c	ND	ND				-		
Silica (used in sand blasting) ^d	NR	NR				-		
1O) Perfluorinated and Polyfluorinated Chemicals (PFCs)								
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	ND	ND	NR	NR	NR	0.01	-	-
Perfluorooctanoic acid (PFOA) related substances	ND	ND				1		
1P) Phthalates - including all other esters of ortho-phthalic acid								
1,2-benzenedicarboxylic acid, di-C6-8 branched and linear alkyl esters, C7-rich (DIHP)	ND	ND	NR	NR	NR	10	-	-
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNU)	ND	ND						
Bis(2-methoxyethyl)phthalate (DMEP)	ND	ND						
Butyl benzyl phthalate (BBP)	ND	ND						
Di-cyclohexyl phthalate (DCHP)	ND	ND						
Di-iso-decyl phthalate (DIDP)	ND	ND						
Di-iso-octyl phthalate (DIOP)	ND	ND						
Di-iso-butyl phthalate (DIBP)	ND	ND						
Di-iso-nonyl phthalate (DINP)	ND	ND						
Di-n-hexyl phthalate (DnHP)	ND	ND						
Di-n-octyl phthalate (DNOP)	ND	ND						
Di-n-pentylphthalates	ND	ND						
Di-n-propyl phthalate (DPRP)	ND	ND						
Di(ethylhexyl) phthalate (DEHP)	ND	ND						
Dibutyl phthalate (DBP)	ND	ND						
Diethyl phthalate (DEP)	ND	ND						
Diisopentylphthalates	ND	ND						
Dinonyl phthalate (DNP)	ND	ND						

c = Limit refers to elemental boron and/or zinc, not the salt.

d = Not a ZDHC wastewater parameter, and not required to test this parameter as this is related to sand blasting

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRSL Parameters (continued)

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A	I001B	I002	I003#	I004#	Wastewater	Sludge [#]	Leachate [#]
	(µg/L)	(µg/L)	(µg/L)	(mg/kg)	(mg/L)	(µg/L)	(mg/kg)	-
1Q) Polycyclic Aromatic Hydrocarbons (PAHs)								
Acenaphthene	ND	ND		ND				
Acenaphthylene	ND	ND		ND				
Anthracene	ND	ND		ND				
Benzo[a]anthracene	ND	ND		ND				
Benzo[a]pyrene (BaP)	ND	ND		ND				
Benzo[b]fluoranthene	ND	ND		ND				
Benzo[e]pyrene	ND	ND		ND				
Benzo[ghi]perylene	ND	ND		ND				
Benzo[j]fluoranthene	ND	ND	NR	ND	NR	1	0.2	-
Benzo[k]fluoranthene	ND	ND		ND				
Chrysene	ND	ND		ND				
Dibenz[a,h]anthracene	ND	ND		ND				
Fluoranthene	ND	ND		ND				
Fluorene	ND	ND		ND				
Indeno[1,2,3-cd]pyrene	ND	ND		ND				
Naphthalene	ND	ND		ND				
Phenanthrene	ND	ND		ND				
Pyrene	ND	ND		ND				
1R) Restricted Aromatic Amines (Cleavable from Azo-colourants)								
2-naphthylamine	ND	ND						
2-naphthylammoniumacetate	ND	ND						
2,4-xylidine	ND	ND						
2,4,5-trimethylaniline	ND	ND						
2,4,5-trimethylaniline hydrochloride	ND	ND						
2,6-xylidine	ND	ND						
3,3'-dichlorobenzidine	ND	ND						
3,3-dimethoxybenzidine	ND	ND						
3,3-dimethylbenzidine	ND	ND						
4-aminoazobenzene	ND	ND						
4-aminodiphenyl	ND	ND						
4-chloro-o-toluidine	ND	ND						
4-chloro-o-toluidinium chloride	ND	ND						
4-chloroaniline	ND	ND						
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisole sulphate	ND	ND	NR	NR	NR	0.1	-	-
4-methoxy-m-phenylenediamine	ND	ND						
4-methyl-m-phenylenediamine	ND	ND						
4,4-methylene-bis-(2-chloro-aniline)	ND	ND						
4,4-methylenedi-o-toluidine	ND	ND						
4,4-methylenedianiline	ND	ND						
4,4-oxydianiline	ND	ND						
4,4-thiodianiline	ND	ND						
5-nitro-o-toluidine	ND	ND						
6-methoxy-m-toluidine	ND	ND						
Benidine	ND	ND						
o-aminoazotoluene	ND	ND						
o-anisidine	ND	ND						
o-toluidine	ND	ND						

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC MRSL Parameters (continued)

Test Parameters	Results of Test Items					Requirements [Textile]		
	I001A (µg/L)	I001B (µg/L)	I002 (µg/L)	I003# (mg/kg)	I004# (mg/L)	Wastewater (µg/L)	Sludge [#] (mg/kg)	Leachate [#] -
1S) UV Absorbers								
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	ND	ND	NR	NR	NR	100	-	-
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	ND	ND						
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	ND	ND						
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	ND	ND						
1T) Volatile Organic Compounds (VOC)								
Benzene	ND	ND	NR	NR	NR	1	-	-
m-cresol	ND	ND						
o-cresol	ND	ND						
p-cresol	ND	ND						
Xylene	ND	ND						
Toluene ^a	ND	ND						

a = Report only for mock leather

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC Heavy Metals Parameters

Test Parameters	Unit			Results of Test Items					Requirements [Textile]					
	Wastewater	Sludge	Leachate	I001A	I001B	I002	I003#	I004#	Wastewater			Sludge		
									Foundational	Progressive	Aspirational	Discharge Limit	Sludge Threshold Values	
ZDHC Heavy Metals														
Antimony	mg/L	mg/kg	mg/L	NR	NR	ND	ND	NR	0.1	0.05	0.01	-	12	
Chromium (VI)	mg/L	mg/kg	mg/L			ND	ND	NR	0.05	0.005	0.001	-	50	
Barium	mg/L	mg/kg	mg/L			ND	ND	NR	Sample & Report				-	700
Selenium	mg/L	mg/kg	mg/L			ND	9.61	NR					-	10
Tin	mg/L	-	-			ND	NR	NR					-	-
Arsenic	mg/L	mg/kg	mg/L			ND	ND	NR	0.05	0.01	0.005	-	10	
Total Chromium	mg/L	mg/kg	mg/L			ND	ND	NR	0.2	0.1	0.05	-	100	
Cobalt	mg/L	mg/kg	mg/L			ND	ND	NR	0.05	0.02	0.01	-	1600	
Cadmium	mg/L	mg/kg	mg/L			ND	ND	NR	0.1	0.05	0.01	-	3	
Copper	mg/L	mg/kg	mg/L			ND	ND	NR	1	0.5	0.25	-	200	
Lead	mg/L	mg/kg	mg/L			ND	ND	NR	0.1	0.05	0.01	-	10	
Nickel	mg/L	mg/kg	mg/L			ND	ND	NR	0.2	0.1	0.05	-	70	
Silver	mg/L	mg/kg	mg/L			ND	ND	NR	0.1	0.05	0.005	-	100	
Zinc	mg/L	mg/kg	mg/L			ND	ND	NR	5	1	0.5	-	1000	
Mercury	mg/L	mg/kg	mg/L			ND	ND	NR	0.01	0.005	0.001	-	1	

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Test Result - ZDHC Conventional and Anions Parameters

Test Parameters	Unit			Results of Test Items					Requirements [Textile]					
	Wastewater	Sludge	Leachate	I001A	I001B	I002	I003#	I004#	Wastewater			Sludge		
									Foundational	Progressive	Aspirational	Discharge Limit	Sludge Threshold Values	
ZDHC Conventional														
pH	pH					8.1	8.7				6 - 9	-		
Temparture	Δ °C					0.6					15	10	5	-
E.coli	MPN/100-ml					ND					126			-
Colour (436 nm)	m ⁻¹					1.6					7	5	2	-
Colour (525 nm)	m ⁻¹					<0.1					5	3	1	-
Colour (620 nm)	m ⁻¹					<0.1					3	2	1	-
Persistent Foam	-					Absent					No indication of Persistent Foam			-
Wastewater Flowrate	m ³ /day					1500					-			-
Ammonium-Nitrogen	mg/L					0.966					10	1	0.5	-
AOX	mg/L					0.338					3	0.5	0.1	-
BOD ₅	mg/L					ND		NR			30	15	8	-
COD	mg/L				NR	ND			NR		150	80	40	-
DO	mg/L					7.16					Sample & Report			-
Oil & Grease	mg/L					ND					10	2	0.5	-
Total Phenols / Phenol Index	mg/L					ND					0.5	0.01	0.001	-
Total Chlorine	mg/L					0.41					Sample & Report			-
TDS	mg/L					2180					Sample & Report			-
Total Nitrogen	mg/L					ND					20	10	5	-
Total Phosphorus	mg/L					0.26					3	0.5	0.1	-
TSS	mg/L					22					50	15	5	-
% Solids	-	%					22.77				-			-
Paint Filter Test	-	-				NR	Pass				-			-
Fecal Coliform	-	MPN/g					2				-			-
ZDHC Anions														
Chloride	mg/L	-	-			90.4	NR				Sample & Report			-
Cyanide, total	mg/L	mg/kg	-			ND	ND				0.2	0.1	0.05	-
Sulfate	mg/L			NR	NR	669			NR		Sample & Report			-
Sulfide	mg/L	-	-			0.01	NR				0.5	0.5	0.01	-
Sulfite	mg/L					ND					2	0.5	0.2	-

#Limit refers to the chosen ZDHC sludge disposal pathway in Table 4 in accordance with the ZDHC Wastewater Guidelines.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix A - Discharge limit according to regulation / contract limit with CETP**(二) 排放许可限值**

表9 废水污染物排放

序号	排放口编号	排放口名称	污染物种类	许可排放浓度限值	许可年排放量限值 (t/a)				
					第一年	第二年	第三年	第四年	第五年
主要排放口									
1	DW001	废水总排口	总氮 (以 N 计)	15	/	/	/	/	/
2	DW001	废水总排口	化学需氧量	80	/	/	/	/	/
3	DW001	废水总排口	pH 值	6-9	/	/	/	/	/
4	DW001	废水总排口	悬浮物	50	/	/	/	/	/
5	DW001	废水总排口	五日生化需氧量	20	/	/	/	/	/
6	DW001	废水总排口	苯胺类	1	/	/	/	/	/
7	DW001	废水总排口	色度	50	/	/	/	/	/
8	DW001	废水总排口	氨氮 (NH ₃ -N)	10	/	/	/	/	/

序号	排放口编号	排放口名称	污染物种类	许可排放浓度限值	许可年排放量限值 (t/a)					
					第一年	第二年	第三年	第四年	第五年	
9	DW001	废水总排口	硫化物	0.5	/	/	/	/	/	
10	DW001	废水总排口	总磷 (以 P 计)	0.5	/	/	/	/	/	
主要排放口合计										
					CODcr	49.320000	49.320000	49.320000		
					氨氮	6.165000	6.165000	6.165000		
					总氮 (以 N 计)	10.200000	10.200000	10.200000		
一般排放口										
一般排放口合计										
					CODcr					
					氨氮					
全厂排放口总计										
全厂排放口总计										
					CODcr	49.320000	49.320000	49.320000	/	/
					氨氮	6.165000	6.165000	6.165000	/	/
					总氮 (以 N 计)	10.200000	10.200000	10.200000	/	/



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix B - Sample Photos

I001A) Sampling point
N 24° 53' 3", E 118° 36' 38"



I001A) Sampling location surrounding
N 24° 53' 3", E 118° 36' 38"



I001A) Labelled sample bottles



I001A) Sample for phthalate test



I001A) Sample packaging



I001B) Sampling point
N 24° 53' 1", E 118° 36' 37"



I001B) Sampling location surrounding
N 24° 53' 1", E 118° 36' 37"



I001B) Labelled sample bottles



I001B) pH measurement



I001B) Sample packaging





Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix B - Sample Photos

I002) Sampling point
N 24° 53' 0", E 118° 36' 39"



I002) Sampling location surrounding
N 24° 53' 0", E 118° 36' 39"



I002) Labelled sample bottles



I002) Sample for ph test



I002) Sample packaging



I003) Sampling point
N 24° 53' 1", E 118° 36' 37"



I003) Sampling location surrounding
N 24° 53' 1", E 118° 36' 37"



I003) Labelled sample bottles



I003) Sample packaging





Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04 Issue Date: _____ Version No.: 17 Business Line: Analytical
--	---	--

General Data

Laboratory Sample Number: _____
 Client Name: 93230670960
 Field Contact Person: 李
 Project (Facility Name and Address): 惠州新源环保科技有限公司
 Sampling Location / Description: 惠州新源环保科技有限公司-21号
 Sample Identification: Untreated Wastewater (高浓度)
 Sample Type: Composite
 Name of Sampler: Li
 Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...)
 Date of collection: 2023/03/23
 Factory Type: Other (Please specify):

Field Data for Wastewater		Arrival Time: 10:51	Departure Time: 17:42
Field Parameters	pH: /	Temp: / °C	Color: Black
Control No. of field equipment	/	/	/
Factory with effluent treatment plant	Yes	No	No
Sample matrix:	<input checked="" type="checkbox"/> Incoming water (if required)	<input type="checkbox"/> Wastewater before treatment	<input type="checkbox"/> Wastewater after treatment - water at discharge point
Sampler container number	J001A		
Recording time	ID	Time	Time
pH:	11.09	12:11	13:13
Temp (°C):	14.2	14.2	14.2
Color (visual estimation):	Black	Black	Black
Flow rate (volume/time)	3000	3000	3000
Volume collected, mL	3000	3000	3000
Total volume collected	9000	Remark: Total volume collected must be greater than total of sample size required	

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or individual test (Remark 4)	1. Flthals 2. Chlorobenzenes, Chlorotoluene & PAH 3. SCCPs 4. APS	1000 mL total or 1000 mL each	全玻璃 N 74° 53' 31" E 118° 36' 31" Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C
5. AlkylDS	Y	100 mL		
6. Chlorophenols & Cresols	Y	100 mL		
7. Flame retardant	Y	500 mL		
8. Dyes	Y	10 mL		
9. Glycol	Y	50 mL		
10. *Pesticides		1000 mL		
11. *Nitrosamine		10 mL		
12. Banned Azodyes	Y	2000 mL		
13. *Organotin compounds		500 mL		
14. Organotin Compounds	Y	500 mL		
15. *Organotin Compounds	Y	100 mL		
16. *Organotin Compounds	Y	100 mL		
17. Pharmaceuticals	Y	50 mL		
18. VOC & Halogenated Solvents (Remark 6)	Y	10 mL		Fill to full container without air gap, acidity to pH2 with HCl and store sample at 2-8°C
19. PFCs (Remark 6)	Y	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 17
		Business Line: Analytical

Tests (Conventional Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4) 20. Total suspended solids (TSS) 21. Total dissolved solids (TDS)		2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C
22. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL		
23. Colour		100 mL		
24. Heavy Metals except Cr(VI) & Total-P (Remark 6)		9 mL	PE, washed with nitric acid	Acidity to pH 2 with HNO ₃ and store at 2-8°C
25. Cyanide		500 mL	Amber Glass, washed with pesticide grade acetone	Adjust pH 12 with 50% NaOH, add 0.05 mL of 10% Na ₂ S ₂ O ₅ and store sample at 2-8°C
26. Cr(VI)		95 mL		Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 2-8°C
27. Chemical oxygen demand (COD)		150 mL		
28. Phenols		500 mL	Amber Glass, washed with nitric acid	Acidity to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
29. Oil and Grease & Total Hydrocarbon		1000 mL		
30. *Formaldehyde		25 mL		Fill to full container without air gap; acidity to pH 2 with H ₂ SO ₄ and store sample at 2-8°C
31. Sulfide (Remark 5)		50 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 50% NaOH Store sample at 2-8°C
32. E.coli (Remark 6)		125 mL	PE, clean, sterile, non reactive	Add 0.1 mL of 10% Na2S2O3; keep in dark Store sample at 2-8°C
33. Persistent foam		N.A.	Foam higher than 45 cm (visual estimation): <u>Yes / No</u>	
34. Sulfite		100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA Store sample at 2-8°C
35. Total-N		100 mL		Acidity to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
36. Ammonium-N		500 mL		
37. Adsorbable organically bound halogens (AOX)		100 mL		Acidity to pH 2 with HNO ₃ and store at 2-8°C
38. Acute aquatic toxicity: Luminus Bacteria; Fish Egg; Daphnia; Algae;		1000 mL	Amber Glass washed with nitric acid	
39. Sulphate		100 mL		Without adding acid Store sample at 2-8°C
40. Chloride		100 mL		
41. Conductivity				
42. Dissolved oxygen (DO)				
43. Other:				
44. Others:				

***Remarks:**

- Individual sampling can be performed upon request
 - The minimum sampling time for ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
 - Scope of ZDHC guideline Parameters: 02, 03, 09, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
 - Scope of MMCC guideline Parameters: 02, 03, 09, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
 - Scope of MMCC Parameters: 02, 03, 09, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43
- Free primary aromatic amine, pesticides, nitrosamine and formaldehyde are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPSD-AN-00019-STIP01, locations with those CPSD test capability inside TCD matrix can perform the combined test.
 - Refer to CPSD-AN-000570-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.
 - Refer to CPSD-AN-00613-MTHD for preparation of field blank for specific parameters.

Recorded by:

林振海 曹振星
Full name: 林振海 曹振星
07401068172 07401068172

Date: 21/4/2023

Comment from factory:

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) is/are collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas is/are stored in portable 1068267 / 1068267 that is maintained in 10°C

Signature of Factory Representative:

曹振星
Full Name: 曹振星

Date: 2023-3-9



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet (continued)

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04 Issue Date: _____ Version No.: 17 Business Line: Analytical
--	---	--

General Data

Laboratory Sample Number: 92220670960

Client Name: 惠州新康泰环保科技有限公司

Field Contact Person: 陈总 Phone No: 13599665212

Project (Facility Name and Address): 惠州市惠阳区秋长镇167号

Sampling Location / Description: Unreacted wastewater (167号)

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample / Grab sample (Please date as appropriate)

Name of Sampler: Leslie Ng

Discharge mode: Direct discharge to environment (Specify destination: Air, Sea, Stream...) OR indirect discharge to sewage treatment plant

Date of collection: 21/9/2023

Factory Type: Drinking / Printing / Washing / Finishing / Others (please specify):

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	<u>10:51</u>	Departure Time:	<u>17:42</u>	Flow rate:	(volume/min)			
Field Parameters	pH: <u>/</u>	Temp: <u>/</u> °C	Color: <u>purple</u>					
Control No. of field equipment								
Factory with effluent treatment plant:	<u>Yes</u>							
Sample matrix:	<u>V</u>							
	Incoming water (if required)							
	Wastewater before treatment							
	Wastewater after treatment - water at discharge point							
Sampler container number	<u>J001B</u>							
	1	2	3	4	5	6	7	8
Recording time	ID							
	Time	<u>11:04</u>	<u>12:07</u>	<u>13:09</u>	<u>14:08</u>	<u>15:06</u>	<u>16:05</u>	<u>17:10</u>
pH:								
Temp (°C):								
Color (visual estimation):	<u>purple</u>	<u>purple</u>	<u>purple</u>	<u>purple</u>	<u>purple</u>	<u>purple</u>	<u>purple</u>	<u>purple</u>
Flow rate (volume/time)								
Volume collected, mL	<u>700</u>	<u>700</u>	<u>700</u>	<u>700</u>	<u>700</u>	<u>700</u>	<u>700</u>	<u>700</u>
Total volume collected	<u>6300</u>	Remark: Total volume collected must be greater than total of sample size required						

Analysis Required and Preservation Method

Tests (ZDHC MRSL Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4)	1. PF6 sulfate	<u>✓</u>	<u>生標</u> <u>N 70° 36' 37"</u>	Without adding acid Store sample at 2-8°C
	2. Chlorobenzenes, Chlorotoluene & PAH	<u>✓</u>		
	3. SCCPs	<u>✓</u>		
	4. APS	<u>✓</u>		
5. APEOs	<u>✓</u>	100 mL	Amber Glass, washed with nitric acid.	
6. Chlorophenols & Cresols	<u>✓</u>	100 mL		
7. Flame retardant	<u>✓</u>	500 mL		
8. Dyes	<u>✓</u>	10 mL		
9. Glycol	<u>✓</u>	50 mL		
10. Pesticides	<u>✓</u>	1000 mL		
11. Nitrosamine	<u>✓</u>	10 mL		
12. Banned Azodyes	<u>✓</u>	2000 mL		
13. Heavy primary amines, and etc	<u>✓</u>	500 mL		
14. Organotin Compounds	<u>✓</u>	500 mL		
15. SV absorbance	<u>✓</u>	100 mL		
16. SV turbidity	<u>✓</u>	100 mL		
17. SV color	<u>✓</u>	100 mL		
18. VOC & Halogenated Solvents (Remark 6)	<u>✓</u>	10 mL		Fill to full container without air gap; adjust to pH 2 with HCl acid; store sample at 2-8°C
19. PPCs (Remark 6)	<u>✓</u>	2 mL	PE, washed with potassium permanganate	Without adding acid Store sample at 2-8°C



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet (continued)

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 17
		Business Line: Analytical

Tests (Conventional Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
Combined test or individual test (Remark 4) 20. Total suspended solids (TSS) 21. Total dissolved solids (TDS)		2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid,	Without adding acid Store sample at 2-8°C
22. 5-day Biochemical Oxygen Demand (BOD5)		1000 mL		
23. Colour		100 mL		
24. Heavy Metals except Cr(VI) & Total-P (Remark 6)		9 mL	PE, washed with nitric acid	Acidity to pH 2 with HNO ₃ and store at 2-8°C
25. Cyanide		500 mL	Amber Glass, washed with pesticide grade acetone	Adjust pH 12 with 10% NaOH, add 0.05 ml of 10% H ₂ O ₂ and store sample at 2-8°C
26. Cr(VI)		95 mL	Amber Glass, washed with nitric acid	Filter by 0.45µm Filter in field, fill to fill container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 2-8°C
27. Chemical oxygen demand (COD)		150 mL		
28. Phenols		500 mL		
29. Oil and Grease & Total Hydrocarbon		1000 mL		
30. *Formaldehyde		25 mL		Fill to full container without air gap; acidity to pH 2 with H ₂ SO ₄ and store sample at 2-8°C
31. Sulfide (Remark 5)		50 mL	PE, washed with pesticide grade Acetone;	Fill to full container without air gap; add 2 drops of 20% zinc acetate, adjust pH to 9 with 5M NaOH. Store sample at 2-8°C
32. E.coli (Remark 6)		125 mL	PE, clean, sterile, non-reactive	Add 0.1 ml of 10% Na2S2O5. Keep in dark. Store sample at 2-8°C
33. Persistent foam		N.A.	Foam higher than 45 cm (visual observation): Yes / No	
34. Sulfite		100 mL	Amber Glass, washed with pesticide grade acetone	Add 1ml of 2.5% EDTA. Store sample at 2-8°C
35. Total-N		100 mL	Amber Glass, washed with nitric acid;	Acidity to pH 2 with H ₂ SO ₄ . Store sample at 2-8°C
36. Ammonium-N		500 mL		
37. Adsorbable organically bound halogens (AOX)		100 mL		
38. Acute aquatic toxicity: Luminescent Bacteria; Fish Egg; Daphnia; Algae;		1000 mL		
39. Sulphate		100 mL	Amber Glass, washed with nitric acid;	Without adding acid Store sample at 2-8°C
40. Chloride		100 mL		
41. Conductivity		100 mL		
42. Dissolved oxygen (DO)		100 mL		
43. Chlorophyll		100 mL		
44. Others:				

Remarks:

- Individual sampling can be performed upon request.
- The minimum sampling time for 2019 ZDHC guideline is 6 hours with no more than one hour between discrete samples. Sampling time could be adjusted upon request.
- Scope of ZDHC Guideline parameters: 14, 23, 31, 37, 39-43
- Scope of synthetic leather parameters: 15, 25, 26, 31, 33, 35, 39-43
- Scope of MWC parameters: 1, 6, 20, 24, 25, 29, 31, 35, 39-43
- Free primary aromatic amine, pesticides, nitrosamine and formaldehyde are not in the scope of ZDHC Guideline, they are tested upon request.
- Refer to CPSD-AN-00019-STIP01, loaders with those CPSD test capability inside TCD matrix can perform the combined test.
- Refer to CPSD-AN-00070-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.
- Refer to CPSD-AN-00613-MTHD for preparation of field blank for specific parameters.

Recorded by:

[Signatures]
Full Name: *[Names]*
Comment from factory: *[Comments]*

Date:

31/9/2023

Authorized by factory:

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) were collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas is/are stored in portable cooler/7 degree fridge to maintain in 1-8°C.

Signatory of Factory Representative:

[Signature]
Full Name: *[Name]*



Date:

2023.3.9



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet (continued)

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04 Issue Date: _____ Version No.: 17 Business Line: Analytical
--	---	--

General Data

Laboratory Sample Number: 9323067096

Client Name: 佛山南海联泰环保科技有限公司

Field Contact Person: 林先生

Project (Facility Name and Address): 佛山南海联泰环保科技有限公司

Sampling Location / Description: 污水处理站

Sample Identification: Zero discharge with sampling plan

Sample Type: Composite Sample / Grab sample (Please delete as appropriate)

Name of Sampler: Wesley Ng

Discharge mode: Direct discharge to environment (Specify destination: River, Sea, Stream...) OR Indirect discharge to sewage treatment plant

Date of collection: 3/9/2023

Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify): 202 普 2E

Note: It would be selected more than one

Field Data for Wastewater		Arrival Time:	Departure Time:	Flow rate:
Field Parameters	pH: <u>10.5</u>	Temp: / °C	Color: <u>Yellow</u>	(volume/min)
Control No. of field equipment	<u>AN-0630</u>	<u>AN-0300-EX</u>		
Factory with effluent treatment plant:	No			
Sample matrix:	Wastewater before treatment			
Sampler container number	Wastewater after treatment - water at discharge point			
	1	2	3	4
Recording time	ID	Time	Time	Time
pH:		<u>11:03</u>	<u>12:01</u>	<u>13:03</u>
Temp (°C):		<u>7.96</u>	<u>7.86</u>	<u>7.98</u>
Color (visual estimation):		<u>Yellow</u>	<u>Yellow</u>	<u>Yellow</u>
Flow rate (volume/time)		<u>3000</u>	<u>3000</u>	<u>3000</u>
Volume collected, mL		<u>3000</u>	<u>3000</u>	<u>3000</u>
Total volume collected	<u>7.0L</u>	Remark: Total volume collected must be greater than total of sample size required		

Tests (ZDHC MREL Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
Combined list or individual test (Remark 4)	1. Phthalate 2. Chlorobenzenes, Chlorotoluene & PAH 3. SCOPs 4. APS	1000 mL total or 1000 mL each	5 桶 N 10° 53' 0" E 110° 36' 39" Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C
5. APEDCs		100 mL		
6. Chlorophenols & Cresols		100 mL		
7. Flame retardant		500 mL		
8. Dyes		10 mL		
9. Glycol		50 mL		
10. *Pesticides		1000 mL		
11. *Nitrosamine		10 mL		
12. Banned Azodyes		2000 mL		
13. *HCB primary aromatic amines		500 mL		
14. Organoth Compounds		500 mL		
15. UV absorbance		1000 mL		
16. *HCB		500 mL		
17. *HCB		500 mL		
18. VOC & Halogenated Solvents (Remark 6)		10 mL	PE, washed with pesticide grade Acetone	Fill to full container without air gap; acidify to pH 2 with HCl and store sample at 2-8°C
19. PFCs (Remark 6)		2 mL		Without adding acid Store sample at 2-8°C



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet (continued)

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04
		Issue Date:
		Version No.: 17
		Business Line: Analytical

Tests (Conventional Parameters)	Test required (V)	Total of sample size	Type of container	Preservation method
Combined test or Individual test (Remark 4) 20. Total suspended solids (TSS) 21. Total dissolved solids (TDS)	✓ ✓	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C
22. 5-day Biochemical Oxygen Demand (BOD5)	✓	1000 mL		
23. Colour	✓	100 mL		
24. Heavy Metals except Cr(VI) & Total-P (Remark 6)	✓	9 mL	PE, washed with nitric acid	Acidity to pH 2 with HNO ₃ and store at 2-8°C
25. Cyanide	✓	500 mL	Amber Glass, washed with pesticide grade acetone	Adjust pH 12 with 50% NaOH, add 0.03 mL of 10% Na ₂ S ₂ O ₅ and store sample at 2-8°C
26. Cr(VI)	✓	95 mL		Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding ammonium buffer. Store sample at 2-8°C
27. Chemical oxygen demand (COD)	✓	150 mL		
28. Phenols	✓	500 mL	Amber Glass, washed with nitric acid	Acidity to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
29. Oil and Grease & Total Hydrocarbon	✓	1000 mL		Fill to full container without air gap; acidity to pH 2 with H ₂ SO ₄ and store sample at 2-8°C
30. *Formaldehyde		25 mL		Fill to full container without air gap; acidity to pH 2 with H ₂ SO ₄ and store sample at 2-8°C
31. Sulfide (Remark 5)	✓	50 mL	PE, washed with pesticide grade Acetone.	Fill to full container without air gap; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH Store sample at 2-8°C
32. E.coli (Remark 6)	✓	125 mL	PE, clean, sterile, non-reactive	Add 0.1 mL of 10% Na2S2O3. Keep in dark. Store sample at 2-8°C
33. Persistent foam	✓	N/A		Foam higher than 40 cm (visual estimation): Yes / No
34. Sulfite	✓	100 mL	Amber Glass, washed with pesticide grade acetone	Add 1mL of 2.5% EDTA Store sample at 2-8°C
35. Total-N	✓	100 mL		Acidity to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
36. Ammonium-N	✓	500 mL		Acidity to pH 2 with HNO ₃ and store at 2-8°C
37. Adsorbable organically bound halogens (AOH)	✓	100 mL		Acidity to pH 2 with HNO ₃ and store at 2-8°C
38. Acute aquatic toxicity: Luminous Bacteria, Fish Egg, Daphnia, Algae;		1000 mL	Amber Glass, washed with nitric acid.	
39. Sulphate		100 mL		Without adding acid Store sample at 2-8°C
40. Chloride	✓	100 mL		
41. Conductivity		100 mL		
42. Dissolved oxygen	✓	NO		
43. Total Chlorine	✓			
44. Others: <i>Sulfate</i>	✓			

***Remarks:**

- Individual sampling can be performed upon request.
- The minimum sampling time for 2019 ZCHC guideline is 6 hours with no more than one hour between discrete samplings. Sampling time could be adjusted upon request.
- Scope of ZCHC Guideline: Parameters: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.
- Free primary aromatic amine, pesticides, nitrosamine and formaldehyde are not in the scope of ZCHC Guideline, they are tested upon request.
- Refer to CPSD-AN-G00019-STP01, locations with those CPSD test capability inside TCO matrix can perform the combined test.
- Refer to CPSD-AN-G00070-MTHD for additional pretreatment of sulfide if only dissolved sulfide is required to be tested.
- Refer to CPSD-AN-00613-MTHD for preparation of field blank for specific parameters.

Recorded by: *[Signature]* Date: *31/9/2023*
 Full name: *[Name]*
 Component from factory: *[Signature]*

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity at captioned date, time and location. All sample(s) were collected in designated container(s) and without any observation in leakage. Sample(s) collected by Bureau Veritas shall be stored in portable cooler/ice packs maintained at 4-8°C.

Signature of Factory Representative: *[Signature]* Date: *2023.3.9*
 Full Name: *[Name]*



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix C - On-site Field Data Record Sheet (continued)

	FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE (COMPOSITE / INDIVIDUAL SAMPLING)	CPSD-AN-00613-DATA 04 Issue Date: Version No.: 17 Business Line: Analytical
	Field Data for Studies Arrival Time: 10:51 Departure Time: 17:42	
	Field Parameters pH: Temp: °C Flow rate (volume/time) / sludge flux (weight/time):	
	Control No. of field equipment:	

Black.

Control No. of field equipment:	1	2	3	4	5	6	7	8
Recording time	ID							
	Time							
pH:								
Temp (°C):								
Flow rate (volume/time) / sludge flux (weight/time)								
Volume collected, mL								
Total volume collected	Remark: Total volume collected must be greater than total of sample size required							



Analysis Required and Preservation Method		Yes	No
Factory with effluent treatment plant		<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample matrix		Sludge in clarifier (sedimentation tank)	
Sampler container number		J003	
Recording time			
Tests (MRLS Parameter)	Test required (Y)	Total of sample size	Type of container
Combined test or Individual test (Remark 3) 1. Phthalate 2. Chlorobenzenes, Chlorotoluene & PAHs 3. SOCPs 4. APS	<input checked="" type="checkbox"/>	10g total or 10g each	全保: N 74° 53' 11" E 118° 36' 37"
	<input checked="" type="checkbox"/>	20g	
	<input type="checkbox"/>	10g	
	<input type="checkbox"/>	10g	
5. APEOs	<input checked="" type="checkbox"/>	20g	Amber Glass, washed with nitric acid
6. Flame retardant	<input type="checkbox"/>	10g	
7. Dyes	<input type="checkbox"/>	10g	
8. Glycols	<input type="checkbox"/>	100g	
9. *Phenols	<input type="checkbox"/>	20g	
10. Banned Aldehydes	<input type="checkbox"/>	20g	
11. *Free primary aromatic amines	<input type="checkbox"/>	10g	
12. Chlorophenols & Cresols	<input type="checkbox"/>	20g	
13. Organotin Compounds	<input type="checkbox"/>	10g	
14. VOC & Halogenated Solvents (Remark 5)	<input type="checkbox"/>	10g	
15. PFCs (Remark 5)	<input type="checkbox"/>	10g	PE, wash with pesticide grade acetone

林松海
070010687
319120
李耀星
070010688

Tests (Conventional Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
16. Heavy Metals except Cr(VI) (Remark 5)	<input checked="" type="checkbox"/>	0.2g	TC, wash with nitric acid	Acidify to -pH 2 with HNO ₃ . Store sample at 4°C
17. Cr(VI)	<input checked="" type="checkbox"/>	2.5g		
18. Adsorbable organohalogen liquid halogen (AOX)	<input type="checkbox"/>	1g	Amber Glass, wash with nitric acid	Fill to full container without any air gap and acid and store at 4°C
19. Extractable organohalides (EOX)	<input type="checkbox"/>	20g		
20. Total organic carbon (TOC)	<input type="checkbox"/>	20g		
21. Cyanide	<input checked="" type="checkbox"/>	50g	Amber Glass, wash with pesticide grade acetone	Acidify to -pH 2 with HNO ₃ and store at 4°C
22. Copper Content	<input checked="" type="checkbox"/>	20g	PE, wash with pesticide grade acetone	Add 0.2mL of 10% Na ₂ S ₂ O ₃ and 0.2mL of 10% NaOH. Store sample at 2-8°C
23. Lead Content	<input checked="" type="checkbox"/>	20g	PE, wash with pesticide grade acetone	Add 0.2mL of 10% Na ₂ S ₂ O ₃ and 0.2mL of 10% NaOH. Store sample at 2-8°C
24. Zinc Content	<input checked="" type="checkbox"/>	20g	PE, wash with pesticide grade acetone	Add 0.2mL of 10% Na ₂ S ₂ O ₃ and 0.2mL of 10% NaOH. Store sample at 2-8°C
25. Total mercury (total)	<input checked="" type="checkbox"/>	20g	Amber Glass, wash with nitric acid	Acidify to -pH 2 with HNO ₃ . Store sample at 4°C



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
1A) AP and APEOs: including all isomers						
Nonylphenol ethoxylates (NPEO)	µg/L	mg/kg	9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0	5	0.4	NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC-MS or LC-MS(-MS)), OPEO/NPEO (n>2): ASTM D7742 ISO 18857-2
Nonylphenol (NP), mixed isomers			104-40-5, 11066-49-2, 25154-52-3, 84852-15-3			
Octylphenol ethoxylates (OPEO)			9002-93-1, 9036-19-5, 68987-90-6			
Octylphenol (OP), mixed isomers			140-66-9, 1806-26-4, 27193-28-8			
1B) Anti-Microbials & Biocides						
o-Phenylphenol (+salts)	µg/L	-	90-43-7	100	-	USEPA 8270E Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC-MS BS EN 12673-1999 USEPA 8270E Solvent extraction followed by GC-MS or ISO 14154:2005 and determination by LCMS/LCMSMS
Triclosan			3380-34-5			
Permethrin			Multiple	500		
1C) Chlorinated Paraffins						
Medium-chain chlorinated paraffins (MCCPs) (C14-C17)	µg/L	-	85535-85-9	500	-	EPA 3510 and analyzed by ISO18219-2:2021 Method for MCCP with GC-MS(NCI) or LC-MS/MS EPA 3510 and analyzed by ISO18219-1:2021, ISO 12010:2019 Methods for SCCP with GC-MS(NCI) or LC-MS/MS
Short-chain chlorinated paraffins (SCCPs) (C10-C13)			85535-84-8	25		
1D) Chlorobenzenes and Chlorotoluenes						
1,2-dichlorobenzene	µg/L	-	95-50-1	0.2	-	USEPA 8260D, 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS
Other isomers of mono-, di, tri-, tetra-, penta-, and hexa- chlorobenzene			Multiple			
Other isomers of mono-, di-, tri-, tetra-, and penta- chlorotoluene						
1E) Chlorophenols						
2-chlorophenol	µg/L	-	95-57-8	0.5	-	USEPA 8270E Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC-MS, BS EN 12673-1999 the procedure of solvent extraction and derivatization are included
3-chlorophenol			108-43-0			
4-chlorophenol			106-48-9			
2,3-dichlorophenol			576-24-9			
2,4-dichlorophenol			120-83-2			
2,5-dichlorophenol			583-78-8			
2,6-dichlorophenol			87-65-0			
3,4-dichlorophenol			95-77-2			
3,5-dichlorophenol			591-35-5			
2,3,4-trichlorophenol			15950-66-0			
2,3,5-trichlorophenol			933-78-8			
2,3,6-trichlorophenol			933-75-5			
2,4,5-trichlorophenol			95-95-4			
2,4,6-trichlorophenol			88-06-2			
3,4,5-trichlorophenol			609-19-8			
2,3,5,6-tetrachlorophenol			935-95-5			
2,3,4,6-tetrachlorophenol			58-90-2			
2,3,4,5-tetrachlorophenol	4901-51-3					
Pentachlorophenol (PCP)	87-86-5					
1F) Dimethyl Formamide (DMFa)						
Dimethyl formamide; N,N-dimethylformamide (DMFa) ^a	µg/L	-	68-12-2	1000	-	EPA 8015, EPA 8270E

a = Report only for mock leather



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
1G) Dyes - Carcinogenic or Equivalent Concern						
Basic Violet 3 with >0.1% of Michler's Ketone	µg/L	-	548-62-9	500	-	Liquid extraction, LC-MS
C.I. Acid Red 26			3761-53-3			
C.I. Acid Violet 49			1694-09-3			
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)			2580-56-5			
C.I. Basic Green 4 (Malachite Green Chloride)			569-64-2			
C.I. Basic Green 4 (Malachite Green Oxalate)			2437-29-8			
C.I. Basic Green 4 (Malachite Green)			10309-95-2			
C.I. Basic Red 9			569-61-9			
C.I. Basic Violet 14			632-99-5			
C.I. Direct Black 38			1937-37-7			
C.I. Direct Blue 6			2602-46-2			
C.I. Direct Red 28			573-58-0			
C.I. Disperse Blue 1			2475-45-8			
C.I. Disperse Blue 3			2475-46-9			
Disperse Orange 11			82-28-0			
1H) Dyes - Disperse (Allergenic)						
Disperse Blue 102	µg/L	-	12222-97-8	50	-	Liquid extraction, LC-MS
Disperse Blue 106			12223-01-7			
Disperse Blue 124			61951-51-7			
Disperse Blue 26			3860-63-7			
Disperse Blue 35			12222-75-2			
Disperse Blue 7			56524-77-7			
Disperse Brown 1			3179-90-6			
Disperse Orange 1			23355-64-8			
Disperse Orange 3			2581-69-3			
Disperse Orange 37/59/76			730-40-5			
Disperse Red 1			13301-61-6			
Disperse Red 11			2872-52-8			
Disperse Red 17			2872-48-2			
Disperse Red 17			3179-89-3			
Disperse Yellow 1			119-15-3			
Disperse Yellow 3			2832-40-8			
Disperse Yellow 39			12236-29-2			
Disperse Yellow 49			54824-37-2			
Disperse Yellow 9	6373-73-5					
1I) Dyes - Navy Blue Colourant						
Component 1: C39H23Cl-CrN7O12S 2Na	µg/L	-	118685-33-9	500	-	Liquid extraction, LC-MS
Component 2: C46H-30CrN10O20S2 3Na			Not Allocated			



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
1J) Flame Retardants						
2,2-bis(bromomethyl)-1,3-propanediol (BRMP)			3296-90-0			USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B Dichloromethane extraction GC-MS or LC-MS(-MS)
Bis(2,3-dibromopropyl) phosphate (BIS)			5412-25-9			
Decabromodiphenyl ether (DecaBDE)			1163-19-5			
Hexabromocyclodecane (HBCDD)			3194-55-6			
Octabromodiphenyl ether (OctaBDE)			32536-52-0			
Pentabromodiphenyl ether (PentaBDE)			32534-81-9			
Polybromobiphenyls (PBB)			59536-65-1			
Tetrabromobisphenol A (TBBPA)			79-94-7			
tris-(2-chloro-1-methyl-ethyl)phosphate (TCPP)			13674-84-5			
Tris(1-aziridinyl)phosphine oxide (TEPA)			545-55-1			
Tris(1,3-dichloro-isopropyl)phosphate (TDCP)			13674-87-8			
Tris(2-chloroethyl)phosphate (TCEP)			115-96-8			
Tris(2,3,-dibromopropyl)-phosphate (TRIS)			126-72-7	25		
Decabromobiphenyl (DecaBB)			13654-09-6			
Dibromobiphenyls (DiBB)	µg/L	-	Multiple		-	
Octabromobiphenyls (OctaBB)						
Dibromopropylether			21850-44-2			
Heptabromodiphenyl ether (HeptaBDE)			68928-80-3			
Hexabromodiphenyl ether (HexaBDE)			36483-60-0			
Monobromobiphenyls (MonoBB)						
Monobromodiphenylethers (MonoBDEs)			Multiple			
Nonabromobiphenyls (NonaBB)						
Nonabromodiphenyl ether (NonaBDE)			63936-56-1			
Tetrabromodiphenyl ether (TetraBDE)			40088-47-9			
Tribromodiphenylethers (TriBDEs)			Multiple			
Boric acid ^b			10043-35-3, 11113-50-1			Determined as total boron via ICP
Diboron trioxide ^b			1303-86-2			
Disodium octaborate ^b			12008-41-2	100		
Disodium tetraborate anhydrous ^b			1303-96-4, 1330-43-4			
Tetraboron disodium heptaoxide, hydrate ^b			12267-73-1			
1K) Glycols / Glycol Ethers						
2-ethoxyethanol	µg/L	-	110-80-5	50	-	USEPA 8270E Liquid extraction, LC-MS GC-MS
2-ethoxyethyl acetate			111-15-9			
2-methoxyethanol			109-86-4			
2-methoxyethylacetate			110-49-6			
2-methoxypropylacetate			70657-70-4			
Bis(2-methoxyethyl)-ether			111-96-6			
Ethylene glycol dimethyl ether			110-71-4			
Triethylene glycol dimethyl ether			112-49-2			
1L) Halogenated Solvents						
1,2-dichloroethane	µg/L	-	107-06-2	1	-	USEPA 8260D Headspace GC-MS or Purge and trap GC-MS
Methylene chloride			75-09-2			
Tetrachloroethylene			127-18-4			
Trichloroethylene			79-01-6			

b = Limit refer to elemental boron, not the salt.



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
1M) Organotin Compounds						
Dipropyltin compounds (DPT)	µg/L	-	Multiple	0.01	-	ISO 17353 Derivatisation with NaB (C2H5)4 GC-MS
Mono-, di- and tri-butyltin derivatives						
Mono-, di- and tri-methyltin derivatives						
Mono-, di- and tri-octyltin derivatives						
Mono-, di- and tri-phenyltin derivatives						
Tetrabutyltin compounds (TeBT)						
Tripropyltin Compounds (TPT)						
Tetraoctyltin compounds (TeOT)						
Tricyclohexyltin (TCyHT)						
Tetraethyltin Compounds (TeET)						
1N) Other/Miscellaneous Chemicals						
AEEA [2-(2-aminoethylamino)ethanol]	µg/L	-	111-41-1	500	-	Liquid extraction, LC-MSMS
Bisphenol A			80-05-7	10		
Thiourea			62-56-6	50		Liquid extraction, LC-MS
Quinoline			91-22-5	50		
Borate, zinc salt ^c			12767-90-7	100		Determine as total boron and total zinc via ICP
Silica (Used in sand blasting) ^d			14464-46-1	NA		Not a ZDHC Wastewater parameter
1O) Perfluorinated and Polyfluorinated Chemicals (PFCs)						
Perfluorooctane sulfonate (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	µg/L	-	Multiple	0.01	-	PFCs: EPA 537:2020 FTOH: BS EN 12673-1999, EPA 8270 PFCs: LC-MSMS FTOH: GC-MS Derivatisation with acetic anhydride followed by GC-MS
Perfluorooctanoic acid (PFOA) related substances				1		
1P) Phthalates - including all other esters of ortho-phthalic acid						
1,2-benzenedicarboxylic acid, di-C6-8 branched and linear alkyl esters, C7-rich (DIHP)	µg/L	-	71888-89-6, 84777-06-0	10	-	USEPA 8270E, ISO 18856 Dichloromethane extraction GC-MS
1,2-benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP)			68515-42-4, 68515-50-4			
Bis(2-methoxyethyl)phthalate (DMEP)			117-82-8			
Butyl benzyl phthalate (BBP)			85-68-7			
Di-cyclohexyl phthalate (DCHP)			84-61-7			
Di-iso-decyl phthalate (DIDP)			26761-40-0			
Di-iso-octyl phthalate (DIOP)			27554-26-3			
Di-iso-butyl phthalate (DIBP)			84-69-5			
Di-iso-nonyl phthalate (DINP)			28553-12-0			
Di-n-hexyl phthalate (DnHP)			84-75-3			
Di-n-octyl phthalate (DNOP)			117-84-0			
Di-n-pentylphthalates			131-18-0			
Di-n-propyl phthalate (DPRP)			131-16-8			
Di(ethylhexyl) phthalate (DEHP)			117-81-7			
Dibutyl phthalate (DBP)			84-74-2			
Diethyl phthalate (DEP)			84-66-2			
Diisopentylphthalates			605-50-5			
Dinonyl phthalate (DNP)			84-76-4			

c = Limit refers to elemental boron and/or zinc, not the salt.

d = Not required to test this parameter as this is related to sand blasting



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods				
	Wastewater	Sludge		Wastewater	Sludge					
1Q) Polycyclic Aromatic Hydrocarbons (PAHs)										
Acenaphthene	µg/L	mg/kg	83-32-9	1	0.2	USEPA 8270E DIN 38407-39 Solvent extraction GC-MS				
Acenaphthylene			208-96-8							
Anthracene			120-12-7							
Benzo[a]anthracene			56-55-3							
Benzo[a]pyrene (BaP)			50-32-8							
Benzo[b]fluoranthene			205-99-2							
Benzo[e]pyrene			192-97-2							
Benzo[ghi]perylene			191-24-2							
Benzo[j]fluoranthene			205-82-3							
Benzo[k]fluoranthene			207-08-9							
Chrysene			218-01-9							
Dibenz[a,h]anthracene			53-70-3							
Fluoranthene			206-44-0							
Fluorene			86-73-7							
Indeno[1,2,3-cd]pyrene			193-39-5							
Naphthalene			91-20-3							
Phenanthrene			85-01-8							
Pyrene	129-00-0									
1R) Restricted Aromatic Amines (Cleavable from Azo-colourants)										
2-naphthylamine	µg/L	-	91-59-8	0.1	-	Reduction step with sodium dithionite, solvent extraction EPA 8270				
2-naphthylammoniumacetate			553-00-4							
2,4-xylidine			95-68-1							
2,4,5-trimethylaniline			137-17-7							
2,4,5-trimethylaniline hydrochloride			21436-97-5							
2,6-xylidine			87-62-7							
3,3'-dichlorobenzidine			91-94-1							
3,3-dimethoxybenzidine			119-90-4							
4-aminoazobenzene			60-09-3							
4-aminodiphenyl			92-67-1							
4-chloro-o-toluidine			95-69-2							
4-chloro-o-toluidinium chloride			3165-93-3							
4-chloroaniline			106-47-8							
4-methoxy-m-phenylene diammonium sulphate;			39156-41-7							
2,4-diaminoanisole sulphate										
4-methoxy-m-phenylenediamine			615-05-4							
4-methyl-m-phenylenediamine			95-80-7							
4,4-methylene-bis-(2-chloro-aniline)			101-14-4							
4,4-methylenedi-o-toluidine			838-88-0							
4,4-methylenedianiline			101-77-9							
4,4-oxydianiline			101-80-4							
4,4-thiodianiline			139-65-1							
5-nitro-o-toluidine			99-55-8							
6-methoxy-m-toluidine			120-71-8							
Benidine			92-87-5							
o-aminoazotoluene			97-56-3							
o-anisidine			90-04-0							
o-toluidine			95-53-4							
Reduction step with sodium dithionite, solvent extraction EPA 8270E and ISO 14362-1 GC/MS and LC/MS/MS										



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater	Sludge		Wastewater	Sludge	
1S) UV Absorbers						
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	µg/L	-	36437-37-3	100	-	USEPA 8270 ISO 22032, USEPA 527 and USEPA 8321B. Dichloromethane extraction GC-MS or LC-MS(-MS)
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)			25973-55-1			
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)			3846-71-7			
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)			3864-99-1			
1T) Volatile Organic Compounds (VOC)						
Benzene	µg/L	-	71-43-2	1	-	ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D Add ISO 20595 Static headspace for determination ISO 11423-1 Headspace or Purge and trap GC-MS EPA 8270 BS EN 12673-1999 ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D HJ 1067 or EPA 8260D or ISO 11423-1
m-cresol			108-39-4			
o-cresol			95-48-7			
p-cresol			106-44-5			
Xylene			1330-20-7			
Toluene ^a			108-88-3			

a = Report only for mock leather



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater & Leachate	Sludge		Wastewater	Sludge	
Heavy Metals						
Antimony	mg/L	mg/kg	7440-36-0	0.01	5	With reference to EPA 3015A, 6020A, 200.8, 6020B, 3051A and ISO 17294-2 and analyzed by ICP-MS With reference to EPA 1311 and HJ/T 300 for leachate
Chromium (VI)			18540-29-9	0.001	20	
Barium			7440-39-3	1	200	
Selenium			7782-49-2	1	5	
Tin			7440-31-5	1	-	
Arsenic			7440-38-2	0.005	5	
Total Chromium			7440-47-3	0.05	50	
Cobalt			7440-48-4	0.01	400	
Cadmium			7440-43-9	0.01	1	
Copper			7440-50-8	0.25	50	
Lead			7439-92-1	0.01	5	
Nickel			7440-02-0	0.05	20	
Silver			7440-22-4	0.005	50	
Zinc			7440-66-6	0.5	400	
Mercury	7439-97-6	0.001	1			
Conventional						
pH	pH	pH		6 - 9		With reference to ISO 10523, EPA 150.2, APHA 4500-H+
Temperature difference	°C			-		USEPA 170.1 or GB/T 13195
E.coli	MPN/100-ml			126		-
Colour	m ⁻¹			2;1;1		ISO 7887 (Method A and B)
Persistent Foam	-			-		-
Wastewater Flowrate	m ³ /day			-		-
Ammonium-Nitrogen	mg/L			0.5		ISO 11732, ISO 7150, USEPA 350.1, APHA 4500 NH ³ -N, HJ 535 or HJ 536
AOX	mg/L			0.1		ISO 9562, EN ISO 9563, USEPA 1650, HJ.T 83-2001
Biochemical Oxygen Demand 5-days concentration (BOD ₅)	mg/L			8		ISO 5815-1 & -2, EN1899-1, USEPA 405.1, APHA 5210B or HJ 505
Chemical Oxygen Demand (COD)	mg/L			40		ISO 6060, USEPA 410.4, APHA 5220D or GB/T 11914
Dissolved Oxygen (DO)	mg/L			-		ISO 5814, EPA 360.1 or HJ 506
Oil & Grease	mg/L			0.5		ISO 9377-2, USEPA 1664 or HJ 637
Total Phenols / Phenol Index	mg/L			0.001		ISO 14402, APHA 5530B, C, D or HJ 503
Total Chlorine	mg/L			0.1		ISO 7393-2, EPA 330.5 or HJ 586
Total Dissolved Solids (TDS)	mg/L			5		APHA 2540C, GB/T 5750.4
Total Nitrogen	mg/L			5		ISO 5663, ISO 29411, USEPA 351.2, APHA 4500P-J, APHA 4500N-C/ HJ 636 or GB 11891
Total Phosphorus	mg/L			0.1		ISO 11885, ISO 6878, USEPA 365.4, APHA 4500P-J or GB/T 11893
Total Suspended Solids (TSS)	mg/L			5		ISO 11923, USEPA 160.2, APHA 2540D or GB/T 11901
% Solids	-	%				USEPA 160.3, HJ 613
Paint Filter Test	-	-				EPA SW-846 or EPA 9095B
Fecal Coliform	-	bacteria/100m				EPA 1681



Test Report: (9323)067-0960

Report Date: March 23, 2023

Appendix D - Test methods, reporting limits and CAS numbers (continued)

Test Parameters	Unit		CAS No.	LOQ		Test methods
	Wastewater & Leachate	Sludge		Wastewater	Sludge	
Anions						
Chloride	mg/L	-	-	-	-	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 32)
Cyanide, total		mg/kg		0.05	20	ISO 6703-1 & 2, ISO 14403-1 & 2, USEPA 335.2, APAH 4500-CN or HJ 484
Sulfate		-		-	-	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 24)
Sulfide		-		0.01	-	ISO 10530, SM 4500-S2-D, E, G or I, GB/T 16489 or IS 3025 (part 29), HJ 1226-2021
Sulfite		-		0.2	-	ISO 10304-3, SM 4500-SO32-C or HJ 84-2016

END OF REPORT