

Report Number	(9323)107-0001
Date of sampling	17/04/2023
Reporting Date	22/04/2023

Audit ID	139716	Audit firm	Bureau Veritas (GUANGZHOU)
Company name	GOLDEN HORIZON DYEING CO.,LTD.		
Contact person	YunLi Han		
Type of tax - tax ID no	Unified Social Credit Code - 91441322737573145R		
Address	ChangShouRoad, Jiutan, YuanzhouTown,Boluo, HuizhouCity ,GuangDong Province , China		
Region state province	Guangdong		
Town city / village	Huizhou		
Zip/Post code	516123		

Type of wastewater discharge	
Type of waste discharge	Direct Discharge
Description of the discharge	Discharge to Xincunpaiqu
Ambient temperature of receiving water body (direct discharge only):	29.5 °C

Sampler accreditation certification number (ZDHC):	C74D106817263
--	---------------

Sample description			
	Simple	Composite	Comments
(1) Wastewater before treatment	Yes, Brown, simple sample at 11:08	No	
(2) Wastewater after treatment	Yes, Transparent, simple sample at 11:15	No	
(3) Sludge	No	Yes, Black	

Summary of test results				
Test items	Sample 1 (Before treatment)	Sample 2 (After treatment)	Sample 3 (Sludge)	Sample 4 (Leachate)
Global effluent parameters ZDHC	NA	ND	ND	NA
Heavy metals	NA	ND	D	ND
Alkylphenols (APs) & Alkylphenol ethoxylates (APEOs)	ND	NA	ND	NA
Chlorobenzenes & Chlorotoluenes	ND	NA	ND	NA
Chlorophenols	ND	NA	NA	NA
Restricted Aromatic Amines (Cleavable from Azo-colourants)	ND	NA	NA	NA
Dyes – Carcinogenic or Equivalent Concern	ND	NA	NA	NA
Dyes – Disperse (Sensitising)	ND	NA	NA	NA
Flame retardants	ND	NA	NA	NA
Glycols	ND	NA	NA	NA
Halogenated Solvents	ND	NA	NA	NA
Organotin compounds	ND	NA	NA	NA
Phthalates	ND	NA	NA	NA
Perfluorinated and Polyfluorinated Chemicals (PFCs)	ND	NA	NA	NA
Polycyclic Aromatic Hydrocarbons (PAHs)	ND	NA	ND	NA
Volatile Organic Compounds (VOCs)	ND	NA	NA	NA
Anti-Microbials & Biocides	ND	NA	NA	NA
Chlorinated Parafins	ND	NA	NA	NA
N,N-di-methylformamide (DMFa)	ND	NA	NA	NA
Dyes – Navy Blue Colourant	ND	NA	NA	NA
Other / Miscellaneous Chemicals	ND	NA	NA	NA
UV Absorbers	ND	NA	NA	NA

Remark (Indicated in each parameter)

ND	=	Not detected	NA	=	Not applicable
D	=	Detected	-	=	Did not perform
*	=	See remark	(f)	=	Parameter tested in field
@	=	Maximum holding time exceeded, Red flag in the ZDHC Gateway – Wastewater Module. Probable error in results due to the holding time.	(T)	=	Handling temperature exceeded
#	=	Non accredited parameter	(S)	=	Analysis was subcontracted for testing - Guangdong Zengyuan Testing Technology Co., Ltd.
[a]	=	The local legal standard name and legal standard number is referenced to discharge permit (or contractual agree by CETP) that provided by company.			

Test results

1. Global effluent parameters

Parameters	Test Method	Limit			Reporting limit	Result Sample 2 (After Treatment)	Unit
		Foundational	Progressive	Aspirational			
Temperature difference	USEPA 170.1 or GB/T 13195	Δ+15	Δ+10	Δ+5	N/A	Δ+2.1 (f)	°C
TSS	ISO 11923, USEPA 160.2, APHA 2540D or GB/T 11901	50	15	5	5	28	mg/L
COD	ISO 6060, USEPA 410.4, APHA 5220D or GB/T 11914	150	80	40	40	47	mg/L
Total-N	ISO 5663, ISO 29411, USEPA 351.2, APHA 4500P-J, APHA 4500N-C/ HJ 636 or GB 11891	20 mg/L	10 mg/L	5 mg/L	5	5.56	mg/L
pH	With reference to ISO 10523, EPA 150.2, APHA 4500-H+	6-9	6-9	6-9	N/A	7.2 (f)	/
Colour [m-1]	ISO 7887-A or B	7;5;3	5;3;2	2;1;1	N/A	<0.1;<0.1;<0.1	m ⁻¹
BOD ₅	ISO 5815-1 & -2, EN1899-1, USEPA 405.1, APHA 5210B or HJ 505	30	15	8	8	ND	mg/L
Ammonium-N	ISO 11732, ISO 7150, USEPA 350.1, APHA 4500 NH ₃ -N, HJ 535 or HJ 536	10	1	0.5	0.5	3.42	mg/L
Total-P	ISO 11885, ISO 6878, USEPA 365.4, APHA 4500P-J or GB/T 11893	3	0.5	0.1	0.1	ND	mg/L
AOX	ISO 9562, EN ISO 9563, USEPA 1650, HJ.T 83-2001	3	0.5	0.1	0.1	0.101	mg/L
Oil and grease	ISO 9377-2, USEPA 1664 or HJ 637	10	2	0.5	0.5	ND	mg/L
Phenol	ISO 14402, APHA 5530B, C, D or HJ 503	0.5	0.01	0.001	0.001	ND	mg/L
E.Coli	SM 9221B, SM9221F / G	126	126	126	126	ND(S)	[MPN/100 ml]
Foam	/	Not visible	Not visible	Not visible	N/A	Not Visible (f)	/
Cyanide	ISO 6703-1 & 2, ISO 14403-1 & 2, USEPA 335.2, APHA 4500-CN or HJ 484	0.2	0.1	0.05	0.05	ND	mg/L
Sulfide	ISO 10530, SM 4500-S ₂ -D, E, G or I, GB/T 16489 or IS 3025 (part 29)	0.5	0.05	0.01	0.01	ND	mg/L



Report Number **(9323)107-0001**

Sulfite	ISO 10304-3, SM 4500-SO32-C or HJ 84-2016	2	0.5	0.2	0.2	ND	mg/L
DO	ISO 5814, EPA 360.1 or HJ 506	Sample and report only			N/A	6.56 (f)	mg/L
Total Chlorine	ISO 7393-2, EPA 330.5 or HJ 586	Sample and report only			N/A	0.38(f)	mg/L
TDS	APHA 2540C, GB/T 5750.4	Sample and report only			5	591	mg/L
Chloride	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 32)	Sample and report only			N/A	161	mg/L
Sulfate	ISO 10304-1, ISO 15923-1, USEPA 300, HJ 84-2016, IS 3025 (part 24)	Sample and report only			N/A	64.4	mg/L
Wastewater Flowrate	/	-			N/A	800 (f)	m ³ /day

2. Heavy metals

With reference to ISO 11885, ISO 18412, ISO 12846, ISO 17852, US EPA 200.7, US EPA 200.8, US EPA 6010c, US EPA 6020a, US EPA 218.6 and by Inductively Coupled Argon Plasma-Mass Spectrometry (ICP-MS) analysis.

Heavy metals	CAS no.	Limit			Reporting limit (mg/L)	Result Sample 2 (After Treatment)	Unit
		Foundational	Progressive	Aspirational			
Arsenic (As)	Various	0.05	0.01	0.005	0.005	ND	mg/L
Cadmium (Cd)	Various	0.1	0.05	0.01	0.01	ND	mg/L
Mercury (Hg)	Various	0.01	0.005	0.001	0.001	ND	mg/L
Lead (Pb)	Various	0.1	0.05	0.01	0.01	ND	mg/L
Antimony (Sb)	Various	0.1	0.05	0.01	0.01	0.0141	mg/L
Cobalt (Co)	Various	0.05	0.02	0.01	0.01	ND	mg/L
Nickel (Ni)	Various	0.2	0.1	0.05	0.05	ND	mg/L
Silver (Ag)	Various	0.1	0.05	0.005	0.005	ND	mg/L
Copper (Cu)	Various	1	0.5	0.25	0.25	ND	mg/L
Zinc (Zn)	Various	5.0	1.0	0.5	0.5	ND	mg/L
Total Chromium (Cr)	Various	0.2	0.1	0.05	0.05	ND	mg/L
Chromium VI (Cr VI)	Various	0.05	0.005	0.001	0.001	ND	mg/L
Barium (Ba)	Various	Sample and report only			1	ND	mg/L
Selenium (Se)	Various	Sample and report only			1	ND	mg/L
Tin (Sn)	Various	Sample and report only			1	ND	mg/L

Remark

ND	=	Not detected	NA	=	Not applicable
D	=	Detected	-	=	Did not perform
*	=	See remark	(f)	=	Parameter tested in field
@	=	Maximum holding time exceeded, Red flag in the ZDHC Gateway – Wastewater Module. Probable error in results due to the holding time.	(T)	=	Handling temperature exceeded
#	=	Non accredited parameter	(S)	=	Analysis was subcontracted for testing - Guangdong Zengyuan Testing Technology Co., Ltd.
[a]	=	The local legal standard name and legal standard number is referenced to discharge permit (or contractual agree by CETP) that provided by company.			



Report Number

(9323)107-0001

3. Alkylphenols (APs) & AlkylphenolEthoxylates (APEOs)

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

Alkylphenols (APs) & Alkylphenoethoxylates (APEOs)	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Octylphenol (OP)	140-66-9/ 1806-26-4/ 27193-28-8	0.005	ND	ppm
Nonylphenol (NP)	104-40-5/ 11066-49-2/ 25154-52-3/ 84852-15-3	0.005	ND	ppm
Octylphenoethoxylates (OPEOs)	9002-93-1/ 9036-19-5/ 68987-90-6	0.005	ND	ppm
Nonylphenoethoxylates (NPEOs)	9016-45-9/ 26027-38-3/ 37205-87-1/ 68412-54-4/ 127087-87-0	0.005	ND	ppm

4. Chlorobenzenes & Chlorotoluenes

USEPA 8260D, 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS

Chlorobenzenes & Chlorotoluenes	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
1,2-Dichlorobenzene	95-50-1	0.0002	ND	ppm
Other isomers of mono-, di-, tri-, tetra-, penta-, and hexa- chlorobenzene and mono-, di-, tri-, tetra-, and penta- chlorotoluene	Various	0.0002	ND	ppm

5. Chlorophenols

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

Chlorophenols	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
2-Chlorophenol	95-57-8	0.0005	ND	ppm
3-Chlorophenol	108-43-0	0.0005	ND	ppm
4-Chlorophenol	106-48-9	0.0005	ND	ppm
2,3-Dichlorophenol	576-24-9	0.0005	ND	ppm
2,4-Dichlorophenol	120-83-2	0.0005	ND	ppm
2,5-Dichlorophenol	583-78-8	0.0005	ND	ppm
2,6-Dichlorophenol	87-65-0	0.0005	ND	ppm
3,4-Dichlorophenol	95-77-2	0.0005	ND	ppm
3,5-Dichlorophenol	591-35-5	0.0005	ND	ppm
2,4,6-Trichlorophenol	88-06-2	0.0005	ND	ppm



Report Number

(9323)107-0001

2,3,5-Trichlorophenol	933-78-8	0.0005	ND	ppm
2,3,6-Trichlorophenol	933-75-5	0.0005	ND	ppm
2,4,5-Trichlorophenol	95-95-4	0.0005	ND	ppm
2,3,4-Trichlorophenol	15950-66-0	0.0005	ND	ppm
3,4,5-Trichlorophenol	609-19-8	0.0005	ND	ppm
2,3,4,5-Trichlorophenol	4901-51-3	0.0005	ND	ppm
2,3,4,6-Tetrachlorophenol	58-90-2	0.0005	ND	ppm
2,3,5,6-Tetrachlorophenol	935-95-5	0.0005	ND	ppm
Pentachlorophenol (PCP)	87-86-5	0.0005	ND	ppm

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

Reduction step with sodium dithionite, solvent extraction EPA 8270E and ISO 14362-1 GC/MS and LC/MS/MS

Azo Dyes	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
4,4-Methylene-bis-(2-chloro-aniline)	101-14-4	0.0001	ND	ppm
4,4-methylenedianiline	101-77-9	0.0001	ND	ppm
4,4-Oxydianiline	101-80-4	0.0001	ND	ppm
4-Chloroaniline	106-47-8	0.0001	ND	ppm
3,3-Dimethoxybenzidine	119-90-4	0.0001	ND	ppm
3,3-Dimethylbenzidine	119-93-7	0.0001	ND	ppm
6-methoxy-m-toluidine	120-71-8	0.0001	ND	ppm
2,4,5-Trimethylaniline	137-17-7	0.0001	ND	ppm
4,4-Thiodianiline	139-65-1	0.0001	ND	ppm
4-Aminoazobenzene	60-09-3	0.0001	ND	ppm
4-methoxy-m-phenylenediamine	615-05-4	0.0001	ND	ppm
4,4-methylenedi-o-toluidine	838-88-0	0.0001	ND	ppm
2,6-Xylidine	87-62-7	0.0001	ND	ppm
o-Anisidine	90-04-0	0.0001	ND	ppm
2-Naphthylamine	91-59-8	0.0001	ND	ppm
3,3'-Dichlorobenzidine	91-94-1	0.0001	ND	ppm
4-Aminobiphenyl	92-67-1	0.0001	ND	ppm
Benzidine	92-87-5	0.0001	ND	ppm
o-Toluidine	95-53-4	0.0001	ND	ppm
2,4-Xylidine	95-68-1	0.0001	ND	ppm



Report Number

(9323)107-0001

4-Chloro-o-toluidine	95-69-2	0.0001	ND	ppm
4-Methyl-m-phenylenediamine	95-80-7	0.0001	ND	ppm
o-Aminoazotoluene	97-56-3	0.0001	ND	ppm
5-Nitro-o-toluidine	99-55-8	0.0001	ND	ppm
2-Naphthylammoniumacetate	553-00-4	0.0001	ND	ppm
2,4,5-trimethylaniline hydrochloride	21436-97-5	0.0001	ND	ppm
4-chloro-o-toluidinium chloride	3165-93-3	0.0001	ND	ppm
4-methoxy-m-phenylene diammonium sulphate; 2,4-diaminoanisoole sulphate	39156-41-7	0.0001	ND	ppm

7. Dyes – Carcinogenic or Equivalent Concern

By Liquid Chromatography Mass Spectrometry (LC-MS) analysis.

Carcinogenic dyes	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
C.I. Direct Black 38	1937-37-7	0.5	ND	ppm
C.I. Direct Blue 6	2602-46-2	0.5	ND	ppm
C.I. Acid Red 26	3761-53-3	0.5	ND	ppm
C.I. Basic Red 9	569-61-9	0.5	ND	ppm
C.I. Direct Red 28	573-58-0	0.5	ND	ppm
C.I. Basic Violet 14	632-99-5	0.5	ND	ppm
C.I. Disperse Blue 1	2475-45-8	0.5	ND	ppm
C.I. Disperse Blue 3	2475-46-9	0.5	ND	ppm
C.I. Basic Blue 26 (with Michler's Ketone > 0.1%)	2580-56-5	0.5	ND	ppm
C.I. Basic Green 4 (malachite green chloride)	569-64-2	0.5	ND	ppm
C.I. Basic Green 4 (malachite green oxalate)	2437-29-8	0.5	ND	ppm
C.I. Basic Green 4 (malachite green)	10309-95-2	0.5	ND	ppm
Disperse Orange 11	82-28-0	0.5	ND	ppm
Basic violet 3 with >0.1% of Michler's Ketone	548-62-9	0.5	ND	ppm
C.I. Acid Violet 49	1694-09-3	0.5	ND	ppm



Report Number

(9323)107-0001

8. Dyes – Disperse (Sensitising)

By Liquid Chromatography Mass Spectrometry (LC-MS) analysis.

Disperse dyes	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Disperse Yellow 1	119-15-3	0.05	ND	ppm
Disperse Blue 102	12222-97-8	0.05	ND	ppm
Disperse Blue 106	12223-01-7	0.05	ND	ppm
Disperse Yellow 39	12236-29-2	0.05	ND	ppm
Disperse Orange 37/59/76	13301-61-6	0.05	ND	ppm
Disperse Brown 1	23355-64-8	0.05	ND	ppm
Disperse Orange 1	2581-69-3	0.05	ND	ppm
Disperse Yellow 3	2832-40-8	0.05	ND	ppm
Disperse Red 11	2872-48-2	0.05	ND	ppm
Disperse Red 1	2872-52-8	0.05	ND	ppm
Disperse Red 17	3179-89-3	0.05	ND	ppm
Disperse Blue 7	3179-90-6	0.05	ND	ppm
Disperse Blue 26	3860-63-7	0.05	ND	ppm
Disperse Yellow 49	54824-37-2	0.05	ND	ppm
Disperse Blue 35	12222-75-2	0.05	ND	ppm
Disperse Blue 124	61951-51-7	0.05	ND	ppm
Disperse Yellow 9	6373-73-5	0.05	ND	ppm
Disperse Orange 3	730-40-5	0.05	ND	ppm
Disperse Blue 35	56524-77-7	0.05	ND	ppm

9. Flame retardants

USEPA 8270E, ISO 22032, USEPA 527 and USEPA 8321B Dichloromethane extraction GC-MS or LC-MS(-MS)

Determined as total boron via ICP

Brominated flame retardants	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	0.025	ND	ppm
Decabromodiphenyl ether (DecaBDE)	1163-19-5	0.025	ND	ppm
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	0.025	ND	ppm
Pentabromodiphenyl ether (PentaBDE)	32534-81-9	0.025	ND	ppm
Octabromodiphenyl ether (OctaBDE)	32536-52-0	0.025	ND	ppm



Report Number

(9323)107-0001

Bis(2,3-dibromopropyl) phosphate	5412-25-9	0.025	ND	ppm
Tris(1-aziridinyl)phosphine oxide (TEPA)	545-55-1	0.025	ND	ppm
Polybromobiphenyls (PBBs)	59536-65-1	0.025	ND	ppm
Tetrabromobisphenol A (TBBPA)	79-94-7	0.025	ND	ppm
Hexabromocyclododecane (HBCDD)	3194-55-6	0.025	ND	ppm
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	0.025	ND	ppm
Tris(1,3-dichloro-isopropyl) phosphate (TDCP)	13674-87-8	0.025	ND	ppm
Tris-(2-chloro-1-methylethyl) phosphate (TCPP)	13674-84-5	0.025	ND	ppm
Decabromobiphenyl (DecaBB)	13654-09-6	0.025	ND	ppm
Dibromobiphenyls (DiBB)	Various	0.025	ND	ppm
Octabromobiphenyls (OctaBB)	Various	0.025	ND	ppm
Dibromopropylether	21850-44-2	0.025	ND	ppm
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3	0.025	ND	ppm
Hexabromodiphenyl ether (HexaBDE)	36483-60-0	0.025	ND	ppm
Monobromobiphenyls (MonoBB)	Various	0.025	ND	ppm
Monobromodiphenylethers (MonoBDEs)	Various	0.025	ND	ppm
Nonabromobiphenyls (NonaBB)	Various	0.025	ND	ppm
Nonabromodiphenyl ether (NonaBDE)	63936-56-1	0.025	ND	ppm
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9	0.025	ND	ppm
Tribromodiphenylethers (TriBDEs)	Various	0.025	ND	ppm
Boric acid	10043-35-3/ 11113-50-1	0.1 ^d	ND	ppm
Diboron trioxide	1303-86-2	0.1 ^d	ND	ppm
Disodium octaborate	12008-41-2	0.1 ^d	ND	ppm
Disodium tetraborate anhydrous	1303-96-4/ 1330-43-4	0.1 ^d	ND	ppm
Tetraboron disodium heptaoxide, hydrate	12267-73-1	0.1 ^d	ND	ppm

d = Limit refers to elemental boron, not the salt

10. Glycols

USEPA 8270E Liquid extraction, LC-MS GC-MS

Glycols	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Bis(2-methoxyethyl)-ether	111-96-6	0.05	ND	ppm
2-ethoxyethanol	110-80-5	0.05	ND	ppm
2-ethoxyethyl acetate	111-15-9	0.05	ND	ppm
Ethylene glycol dimethyl ether	110-71-4	0.05	ND	ppm



Report Number

(9323)107-0001

2-methoxyethanol	109-86-4	0.05	ND	ppm
2-methoxyethylacetate	110-49-6	0.05	ND	ppm
2-methoxypropylacetate	70657-70-4	0.05	ND	ppm
Triethylene glycol dimethyl ether	112-49-2	0.05	ND	ppm

11. Halogenated Solvents

USEPA 8260D Headspace GC-MS or Purge and trap GC-MS

Chlorinated solvents	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
1,2-Dichloroethane	107-06-2	0.001	ND	ppm
Methylene chloride	75-09-2	0.001	ND	ppm
Trichloroethene	79-01-6	0.001	ND	ppm
Tetrachloroethene	127-18-4	0.001	ND	ppm

12. Organotin compounds

ISO 17353 derivatisation with NaB (C₂H₅)₄ GC-MS

Organotin compounds	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Mono-, di- and tri-methyltin derivatives	Various	0.00001	ND	ppm
Mono-, di- and tri-butyltin derivatives	Various	0.00001	ND	ppm
Mono-, di- and tri-phenyltin derivatives	Various	0.00001	ND	ppm
Mono-, di- and tri-octyltin derivatives	Various	0.00001	ND	ppm
Tricyclohexyltin (TCyHT)	Various	0.00001	ND	ppm
Dipropyltin compounds (DPT)	Various	0.00001	ND	ppm
Tetrabutyltin compounds (TeBT)	Various	0.00001	ND	ppm
Tripropyltin compounds (TPT)	Various	0.00001	ND	ppm
Tetraoctyltin compounds (TeOT)	Various	0.00001	ND	ppm
Tetraethyltin compounds (TeET)	Various	0.00001	ND	ppm

13. Phthalates

USEPA 8270E, ISO 18856 Dichloromethane extraction GC-MS

Phthalates	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Di-2-ethylhexyl phthalate (DEHP)	117-81-7	0.01	ND	ppm
Bis(2-methoxyethyl) phthalate (DMEP)	117-82-8	0.01	ND	ppm

Di-n-octyl phthalate (DNOP)	117-84-0	0.01	ND	ppm
Di-iso-decyl phthalate (DIDP)	26761-40-0	0.01	ND	ppm
Di-iso-nonyl phthalate (DINP)	28553-12-0	0.01	ND	ppm
Di-n-hexyl phthalate (DnHP)	84-75-3	0.01	ND	ppm
Dibutyl phthalate (DBP)	84-74-2	0.01	ND	ppm
Butyl benzyl phthalate (BBP)	85-68-7	0.01	ND	ppm
Diethyl phthalate (DEP)	84-66-2	0.01	ND	ppm
Di-n-propyl phthalate (DPRP)	131-16-8	0.01	ND	ppm
Di-iso-butyl phthalate (DIBP)	84-69-5	0.01	ND	ppm
Di-cyclohexyl phthalate (DCHP)	84-61-7	0.01	ND	ppm
Di-iso-octyl phthalate (DIOP)	27554-26-3	0.01	ND	ppm
1,2-benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUF)	68515-42-4/ 68515-50-4	0.01	ND	ppm
1,2-benzenedicarboxylic acid, di-C6-11-branched alkyl esters, C7-rich (DIHP)	71888-89-6/ 84777-06-0	0.01	ND	ppm
Di-n-pentylphthalates	131-18-0	0.01	ND	ppm
Diisopentylphthalates	605-50-5	0.01	ND	ppm
Dinonyl phthalate (DNP)	84-76-4	0.01	ND	ppm

14. Perfluorinated chemicals (PFCs)

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

Perfluorinated chemicals (PFCs)	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Perfluorooctane sulfonic acid (PFOS) and related substances, Perfluorooctanoic acid (PFOA)	Various	0.00001	ND	ppm
Perfluorooctanoic acid (PFOA) related substances	Various	0.001	ND	ppm

15. Polycyclic aromatic hydrocarbons (PAHs)

USEPA 8270E DIN 38407-39 solvent extraction GC-MS

Polycyclic aromatic hydrocarbons (PAHs)	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Benzo(a)pyrene (BaP)	50-32-8	0.001	ND	ppm
Anthracene	120-12-7	0.001	ND	ppm
Pyrene	129-00-0	0.001	ND	ppm
Benzo(ghi)perylene	191-24-2	0.001	ND	ppm
Benzo(e)pyrene	192-97-2	0.001	ND	ppm



Report Number

(9323)107-0001

Indeno (1,2,3-cd)pyrene	193-39-5	0.001	ND	ppm
Benzo(j)fluoranthene	205-82-3	0.001	ND	ppm
Benzo(b)fluoranthene	205-99-2	0.001	ND	ppm
Fluoranthene	206-44-0	0.001	ND	ppm
Benzo(k)fluoranthene	207-08-09	0.001	ND	ppm
Acenaphthylene	208-96-8	0.001	ND	ppm
Chrysene	218-01-9	0.001	ND	ppm
Dibenz(a,h)anthracene	53-70-3	0.001	ND	ppm
Benzo(a)anthracene	56-55-3	0.001	ND	ppm
Acenaphthene	83-32-9	0.001	ND	ppm
Phenanthrene	85-01-8	0.001	ND	ppm
Fluorene	86-73-7	0.001	ND	ppm
Naphthalene	91-20-3	0.001	ND	ppm

16. Volatile organic compounds (VOCs)

ISO 11423-1 Headspace or Purge and trap GC-MS USEPA 8260D Add ISO 20595 Static headspace for determination of VOC in wastewater
 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

Volatile organic compounds (VOCs)	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Benzene	71-43-2	0.001	ND	ppm
Xylene	1330-20-7	0.001	ND	ppm
o-cresol	95-48-7	0.001	ND	ppm
p-cresol	106-44-5	0.001	ND	ppm
m-cresol	108-39-4	0.001	ND	ppm
Toluene ^a	108-88-3	0.001	ND	ppm

a = report only for mock leather

17. Anti-Microbials & Biocides

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

Carcinogenic dyes	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
o-Phenylphenol (+salts)	90-43-7	0.1	ND	ppm
Triclosan	3380-34-5	0.1	ND	ppm
Permethrin	Various	0.5	ND	ppm

18. Chlorinated Paraffins

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

Chlorinated Paraffins	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Medium-chain chlorinated paraffins (MCCPs) (C14-C17)	85535-85-9	0.5	ND	ppm
Short-chain chlorinated paraffins (C10-C13)	85535-84-8	0.025	ND	ppm

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

EPA 8015, EPA 8270E

N,N-di-methylformamide (DMFa)	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Dimethyl formamide; N,N-dimethylformamide (DMFa) ^a	68-12-2	1	ND	ppm

a = report only for mock leather

20. Dyes – Navy Blue Colourant

By Liquid Chromatography Mass Spectrometry (LC-MS) analysis.

Dyes – Navy Blue Colourant	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
Component 1: C39H23Cl-CrN7O12S 2Na	118685-33-9	0.5	ND	ppm
Component 2: C46H-30CrN10O20S2 3Na	Not allocated	0.5	ND	ppm



Report Number

(9323)107-0001

21. Other /Miscellaneous Chemicals

By Liquid Chromatography Mass Spectrometry (LC-MS or LC-MS-MS) analysis.
Determine as total boron and total zinc via ICP

Other /Miscellaneous Chemicals	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
AEEA [2-(2-aminoethylamino)ethanol]	111-41-1	0.5	ND	ppm
Bisphenol A	80-05-7	0.01	ND	ppm
Thiourea	62-56-6	0.05	ND	ppm
Quinoline	91-22-5	0.05	ND	ppm
Borate, zinc salt	12767-90-7	0.1 ^b	ND	ppm
Silica (used in sand blasting) ^c	14464-46-1	/	NA	ppm

b = Limit refers to boron and zinc individually, not the salt

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

22. UV Absorbers

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

UV Absorbers	CAS no.	Reporting limit (ppm)	Result Sample 1 (Before treatment)	Unit
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl) phenol (UV-350)	36437-37-3	0.1	ND	ppm
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.1	ND	ppm
2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7	0.1	ND	ppm
2,4-Di-tert-butyl-6-(5-chlorobenzotriazole-2-yl) phenol (UV-327)	3864-99-1	0.1	ND	ppm

23. Sludge Parameters – Step 1 – Metals (Sludge Disposal Pathway = C)

With reference to EPA 3015A, 6020A, 200.8, 6020B, 3051A and ISO 17294-2 and analyzed by ICP-MS

Sludge Parameters - Metals	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
Arsenic	-	5	ND	ppm
Barium	-	200	ND	ppm
Cadmium	-	1	ND	ppm
Cobalt	-	400	ND	ppm
Copper	-	50	76.4	ppm
Lead	-	5	11.4	ppm



Report Number

(9323)107-0001

Nickel	-	20	75.7	ppm
Selenium	-	5	ND	ppm
Silver	-	50	ND	ppm
Total Chromium	-	50	374	ppm
Zinc	-	400	493	ppm
Chromium (VI)	-	20	ND	ppm
Mercury	-	1	ND	ppm
Antimony	-	5	16.3	ppm

24. Sludge Parameters – Step 1 - Anions

ISO 6703-1 & 2, ISO 14403-1 & 2, USEPA 335.2, APAH 4500-CN or HJ 484

Sludge Parameters - Anions	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
Cyanide	-	20	ND	ppm

25. Sludge Parameters – Step 1 - Conventional

With reference to ISO 10523, EPA 150.2, APHA 4500-H+
USEPA 160.3
EPA SW-846 or EPA 9095B
EPA 1681

Sludge Parameters - Conventional	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
pH	-	/	7.43	-
% Solids	-	/	43.86	%
Paint Filter Test	-	/	PASS	-
Fecal Coliform	-	/	1600	MPN/g

26. Sludge Parameters – Step 1 – MRSL – Alkylphenols (APs) and Alkylphenol Ethoxylates (APEOs): including all isomers

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

Sludge Parameters – APs and APEOs	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
Nonylphenol ethoxylates (NPEO)	Various	0.4	ND	ppm
Nonylphenol (NP), mixed isomers	Various	0.4	ND	ppm
Octylphenol ethoxylates (OPEO)	Various	0.4	ND	ppm
Octylphenol (OP), mixed isomers	Various	0.4	ND	ppm



Report Number

(9323)107-0001

27. Sludge Parameters – Step 1 – MRSL – Polycyclic Aromatic Hydrocarbons (PAHs)

USEPA 8270E DIN 38407-39 Solvent extraction GC-MS

Sludge Parameters – PAHs	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
Acenaphthene	83-32-9	0.2	ND	ppm
Acenaphthylene	208-96-8	0.2	ND	ppm
Anthracene	120-12-7	0.2	ND	ppm
Benzo[a]anthracene	56-55-3	0.2	ND	ppm
Benzo[a]pyrene (BaP)	50-32-8	0.2	ND	ppm
Benzo[b]fluoranthene	205-99-2	0.2	ND	ppm
Benzo[e]pyrene	192-97-2	0.2	ND	ppm
Benzo[ghi]perylene	181-24-2	0.2	ND	ppm
Benzo[j]fluoranthene	205-82-3	0.2	ND	ppm
Benzo[k]fluoranthene	207-08-9	0.2	ND	ppm
Chrysene	218-01-9	0.2	ND	ppm
Dibenz[a,h]anthracene	53-70-3	0.2	ND	ppm
Fluoranthene	206-44-0	0.2	ND	ppm
Fluorene	86-73-7	0.2	ND	ppm
Indeno[1,2,3-cd]pyrene	193-39-5	0.2	ND	ppm
Naphthalene	91-20-3	0.2	ND	ppm
Phenanthrene	85-01-8	0.2	ND	ppm
Pyrene	129-00-0	0.2	ND	ppm

28. Sludge Parameters – Step 1 – MRSL – Chlorotoluenes

USEPA 8260D, 8270E, Purge and Trap, Head Space, Dichloromethane extraction followed by GC-MS

Sludge Parameters – Chlorotoluenes	CAS no.	Reporting limit (ppm)	Result Sample 3 (Sludge)	Unit
Isomers of mono-, di-, tri-, tetra- and penta chlorotoluene	Various	0.2	ND	ppm



Report Number

(9323)107-0001

29. Sludge Parameters – Step 2 – Metals

With reference to EPA 3015A, 6020A, 200.8, 6020B, 3051A and ISO 17294-2 and analyzed by ICP-MS

Sludge Parameters – Step 2 - Metals	CAS no.	Reporting limit (ppm)	Result Sample 4 (Leachate)	Unit
Antimony	-	/	ND	ppm
Arsenic	-	/	NA	ppm
Barium	-	/	NA	ppm
Cadmium	-	/	NA	ppm
Cobalt	-	/	NA	ppm
Copper	-	/	NA	ppm
Lead	-	/	ND	ppm
Nickel	-	/	ND	ppm
Selenium	-	/	NA	ppm
Silver	-	/	NA	ppm
Total Chromium	-	/	ND	ppm
Zinc	-	/	NA	ppm
Chromium (VI)	-	/	NA	ppm
Mercury	-	/	NA	ppm

Remark

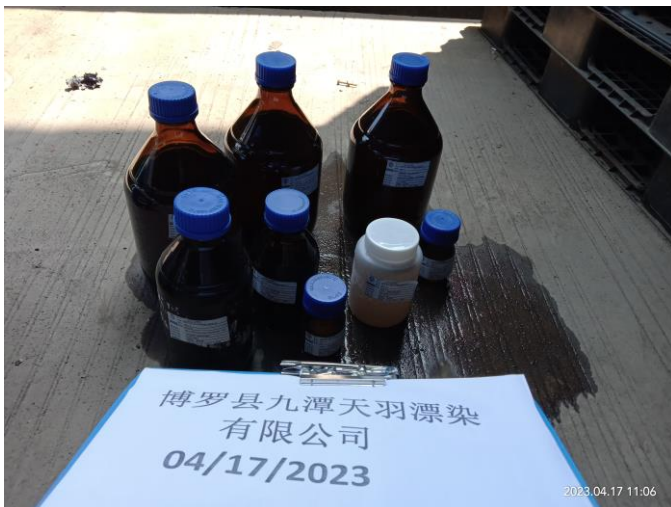
ND	=	Not detected	NA	=	Not applicable
D	=	Detected	-	=	Did not perform
*	=	See remark	(f)	=	Parameter tested in field
@	=	Maximum holding time exceeded, Red flag in the ZDHC Gateway – Wastewater Module. Probable error in results due to the holding time.	(T)	=	Handling temperature exceeded
			(S)	=	Analysis was subcontracted for testing - Guangdong Zengyuan Testing Technology Co., Ltd.

Annex A: Sampling photos & Sampling locations

Sample 1 – Sampling Point
N 23° 9' 14", E 113° 57' 44"



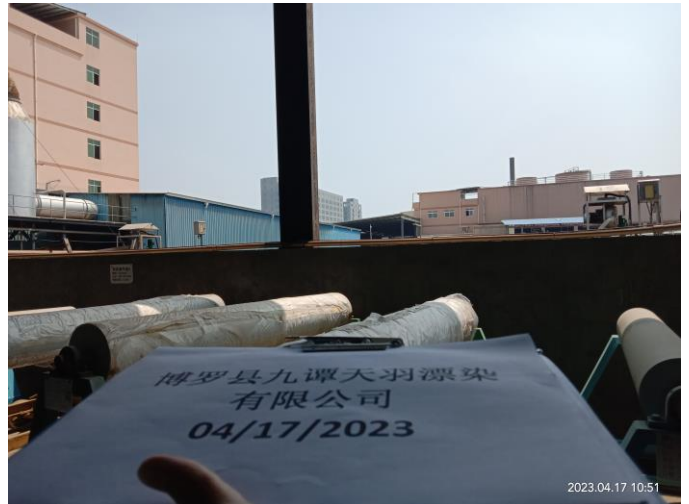
Sample 1 – Labelled Sample Bottles



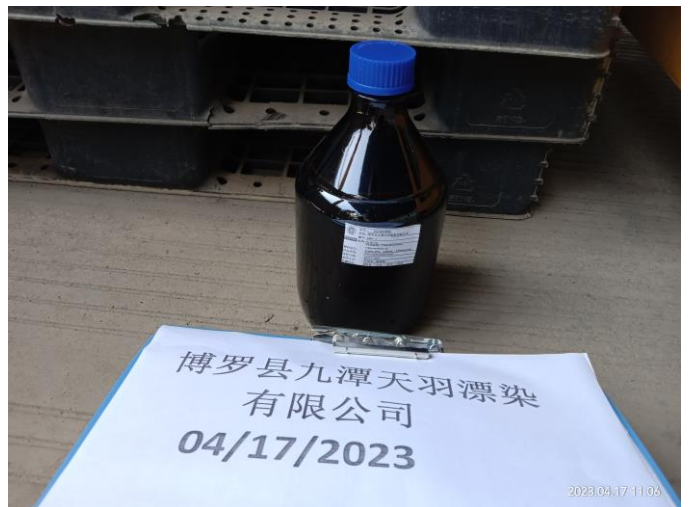
Sample 1 – Sample Packaging



Sample 1 – Sampling Point Surrounding Environment
N 23° 9' 14", E 113° 57' 44"



Sample 1 – Sample for Phthalate Test



Annex A: Sampling photos & Sampling locations (continued)

Sample 2 – Sampling Point
N 23° 9' 40", E 113° 58' 0"

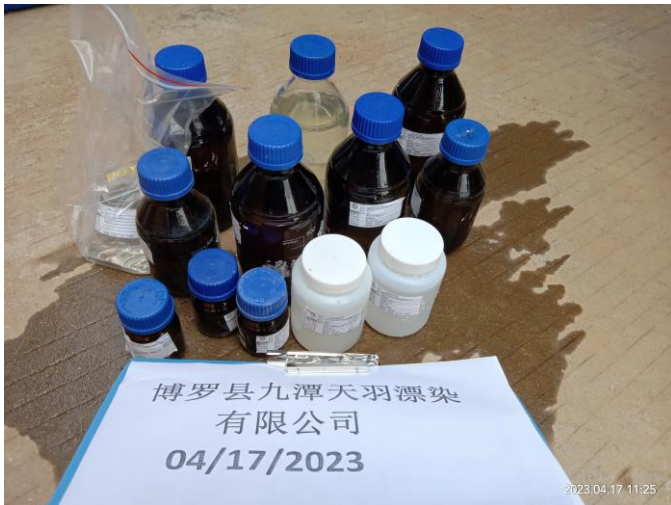


Sample 2 – Labelled Sample Bottles

Sample 2 – Sampling Point Surrounding Environment
N 23° 9' 40", E 113° 58' 0"



Sample 2 – pH Measurement



Sample 2 – Sample Packaging



Annex A: Sampling photos & Sampling locations (continued)

Sample 3 – Sampling Point
N 23° 9' 38", E 113° 57' 56"



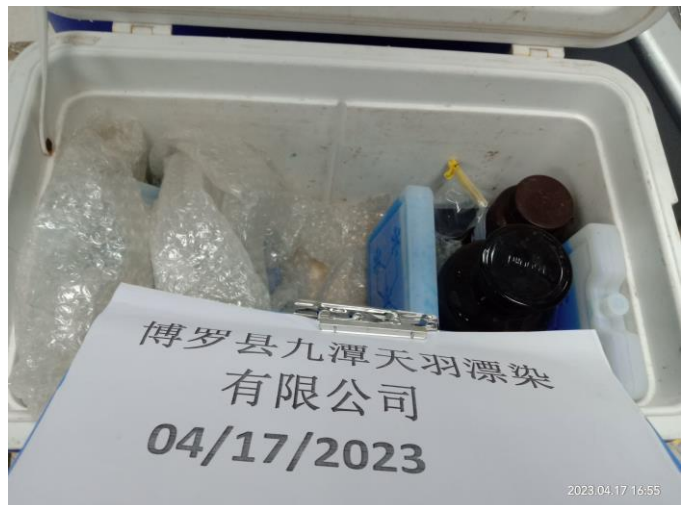
Sample 3 – Labelled Sample Bottles



Sample 3 – Sampling Point Surrounding Environment
N 23° 9' 38", E 113° 57' 56"



Sample 3 – Sample Packaging





BUREAU VERITAS

Report Number

(9323)107-0001

Annex B: 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: 93231070001

Client Name: 博罗县博天源环保科技有限公司

Field Contact Person: 黄菲 Phone No: 18307754225

Project (Facility Name and Address): 博罗县园洲镇九潭长春路127号

Sampling Location / Description: Untreated wastewater

Sample Identification: Zero discharge with sampling plan

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

Name of Sampler: 黄菲

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

Date of collection: 4/17/2023

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

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	<u>10:40</u>	Departure Time:	<u>17:00</u>
Field Parameters	pH: <u>✓</u>	Temp: <u>✓</u> °C	Color: <u>Brown</u>
Control No. of field equipment	<u>✓</u>		
Factory with effluent treatment plant:	<u>✓</u>		No
Sample matrix:	<input checked="" type="checkbox"/>	incoming water (if required)	
	<input checked="" type="checkbox"/>	Wastewater before treatment	
	<input type="checkbox"/>	Wastewater after treatment - water at discharge point	
Sampler container number	<u>I001</u>		
Recording time	ID		
	Time	<u>11:08</u>	
pH:			
Temp (°C):			
Color (visual estimation):	<u>Brown</u>		
Flow rate (volume/time)			
Volume collected, mL			
Total volume collected	<u>85L</u>	<small>Remark: Total volume collected must be greater than total of sample size required</small>	

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. Preheleto	✓	<u>坐标:</u> <u>N23°09'14"</u> <u>E113°57'44"</u>	Without adding acid Store sample at 2-8°C
	2. Chlorobenzenes, Chlorotoluene & PAH	✓		
	3. SCCPs	✓		
	4. APB	✓		
5. APEOs	✓	100 mL		
6. Chlorophenols & Cresols	✓	100 mL		
7. Flame retardant	✓	500 mL		
8. Dyes	✓	10 mL		
9. Glycol	✓	50 mL	Amber Glass, washed with nitric acid.	
10. Pesticides	✓	1000 mL		
11. Nitroamines	✓	10 mL		
12. Banned Azodyes	✓	2000 mL		
13. Free phenyl aromatic amines	✓	500 mL		
14. Organotin Compounds	✓	500 mL		
15. UV absorbers	✓	100		
16. BPA	✓	2		
17. Preservatives	✓	50		
18. VOC & Halogenated Solvents (Remark 6)	✓	10 mL		Fill to full container without air gap; acidify in pH 2 with HCl and store sample at 2-8°C
19. PFCs (Remark 6)	✓	2 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C



BUREAU VERITAS

Report Number

(9323)107-0001

Annex B: 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)	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid,	Without adding acid Store sample at 2-8°C
	21. Total dissolved solids (TDS)			
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	Amber Glass, washed with nitric acid	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9.0-9.5 by adding arsenium buffer. Store sample at 2-8°C
27. Chemical oxygen demand (COD)		150 mL		Acidity to pH 2 with H ₂ SO ₄ , Store sample at 2-8°C
28. Phenols		500 mL		
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		
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 8M 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% NaS ₂ O ₃ . Keep in dark. Store sample at 2-8°C
33. Persistent foam		N.A.	Foam higher than 45 cm (visual estimator): <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	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		Acidity to pH 2 with HNO ₃ and store at 2-8°C
37. Adsorbable organically bound halogens (AOX)		100 mL		
38. Acute aquatic toxicity: Lumines Bacteria; Fish Egg; Daphnia; Algae;		1000 mL		Without adding acid Store sample at 2-8°C
39. Sulphate		100 mL		
40. Chloride		100 mL		
41. Conductivity		100 mL		
42. Dissolved oxygen (DO)		N.A.		
43. Total Chlorine		N.A.		
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: 1-9, 12, 14-25, 31-37, 39-42
 - Scope of synthetic fiber industry: Parameters: 1-9, 12, 14-24, 26-29, 31-33, 35, 36, 39, 40
 - Scope of MMCF: Parameters: 18, 20, 22-24, 26-28, 31, 35-38
 - 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-G00019-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-00015-AT-ID for preparation of field blank for specific parameters.

Recorded by: 黄模星 内附博 Date: 4/17/2023
 Full name: 014D106817263
 Comments 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 freezer / fridge that is maintained in 1-6°C

Signatory of Factory Representative: 黄菲 Date: 2023.4.17
 Full Name:



BUREAU VERITAS

Report Number

(9323)107-0001

Annex B: 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: 93231070001

Client Name: 博罗县九潭天洲漂染有限公司

Field Contact Person: 董菲 Phone No: 1850754235

Project (Facility Name and Address): 博罗县园洲镇九潭长寿路127号

Sampling Location / Description: Effluent

Sample Identification: Zero discharge with sampling plan

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

Name of Sampler: 董菲、陈梓博

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

Date of collection: 4/17/2023

Factory Type: Dyeing / Printing / Washing / Finishing / Others (please specify): TD: 博罗县园洲镇新村排渠

*Note: It would be selected more than one

Field Data for Wastewater

Arrival Time:	<u>10:40</u>	Departure Time:	<u>11:00</u>	Flow rate: (volume/min)					
Field Parameters	pH: <u>7.21</u>	Temp: <u>31.6 °C</u>	Color: <u>Transparent</u>						
Control No. of field equipment	<u>AV-0588</u>	<u>AN0300-E25</u>							
Factory with effluent treatment plant:	<input checked="" type="checkbox"/> No								
Sample matrix:	<input type="checkbox"/> incoming water (if required)								
	<input type="checkbox"/> Wastewater before treatment								
	<input checked="" type="checkbox"/> Wastewater after treatment - water at discharge point								
Sampler container number	1	2	3	4	5	6	7	8	
Recording time	ID								
	Time								
pH:	<u>7.21</u>								
Temp (°C):	<u>31.6</u>								
Color (visual estimation):	<u>Fourfold test</u>								
Flow rate (volume/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

Tests (ZDHC MRSI Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method		
Combined test or individual test (Remark 4)	1. Pythalatin	1000 mL total or 1000 mL each	N 23° 9' 40"	E 113° 58' 0"		
	2. Chlorobenzenes, Chlorotoluene & PAH					
	3. SCCPs					
	4. APS					
6. APEOs		100 mL	Amber Glass, washed with nitric acid.	Without adding acid Store sample at 2-8°C		
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. *Free primary aromatic amines		500 mL	PE, washed with pesticide grade Acetone	Without adding acid Store sample at 2-8°C		
14. Organotin Compounds		500 mL				
15. UV absorbers		100				
16. BPA		2				
17. Preservatives		10				
18. VOC & Halogenated Solvents (Remark 6)		10 mL				
19. PFCA (Remark 6)		2 mL				



BUREAU VERITAS

Report Number

(9323)107-0001

Annex B: 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)	2000 mL total or 2000 mL each	Amber Glass, washed with nitric acid,	Without adding acid Store sample at 2-8°C
	21. Total dissolved solids (TDS)			
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	Acidify 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	Amber Glass; washed with nitric acid	Filter by 0.45µm filter in field, fill to full container without air gap; adjust pH to 9-9.5 by adding ammonium buffer. Store sample at 2-8°C
27. Chemical oxygen demand (COD)	✓	150 mL		Acidify to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
28. Phenols	✓	500 mL		
29. Oil and Grease & Total Hydrocarbon	✓	1000 mL		Fill to full container without air gap; acidify 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; add 2 drops of 2M zinc acetate, adjust pH to 9 with 6M NaOH. Store sample at 2-8°C
31. Sulfide (Remark 5)	✓	50 mL	PE, washed with pesticide grade Acetone;	Add 0.1 ml of 10% NaOH, keep in dark. Store sample at 2-8°C
32. E. coli (Remark 6)	✓	125 mL	PE, clean, sterile, non-reactive	
33. Persistent foam	✓	N.A.	Foam higher than 45 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	Amber Glass; washed with nitric acid	Acidify to pH 2 with H ₂ SO ₄ Store sample at 2-8°C
36. Ammonium-N	✓	500 mL		Acidify to pH 2 with HNO ₃ and store at 2-8°C
37. Adsorbable organically bound halogens (AOK)	✓	100 mL		
38. Acute aquatic toxicity: Luminous Bacteria, Fish Egg, Daphne, Algae		1000 mL	Amber Glass; washed with nitric acid	
39. Sulfate	✓	100 mL		Without adding acid Store sample at 2-8°C
40. Chloride	✓	100 mL		
41. Conductivity		100 mL		
42. Dissolved Oxygen (DO)	✓	N/A		Measure in field
43. Total Chlorine	✓	N/A		
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: 1-9, 12, 14-29, 31-37, 39-43
Scope of synthetic leather industry Parameters: 1-9, 14, 16-24, 26-29, 31-33, 35, 36, 39, 40
Scope of MMGP Parameters: 1, 9, 20, 22, 24, 26, 29, 31, 35, 36
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-G00019-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: 黄捷勇 叶叶叶
 Full name: C14D100817263

Date: 4/17/2023

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 freezer / fridge that is maintained in 1-8°C

Signatory of Factory Representative: 黄捷
 Full Name: _____

Date: 2023.4.17



Annex B: 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 Sludge		Arrival Time: 10:40	Departure Time: 17:00	
Field Parameters	pH:	Temp: °C	Flow rate (volume/time) / sludge flux (weight/time):	
Control No. of field equipment				
Recording time	ID			
	Time	10:59	11:52	12:54
			13:55	14:50
			15:51	16:50
pH:				
Temp (°C):				
Flow rate (volume/time) / sludge flux (weight/time)				
Volume collected, mL				
Total volume collected	2 kg	Remark: Total volume collected must be greater than total of sample size required		

Black

黄橙

C74D068726

4/17/20

黄橙

Analysis Required and Preservation Method

Factory with effluent treatment plant		Yes	No	
Sample matrix		Sludge in clarifier (sedimentation tank)		
Sampler container number	1003			
Recording time				
Tests (MRSL Parameter)	Test required (Y)	Total of sample size	Type of container	
Combined test or individual test (Remark 3)	1. Phthalate		N23°9'38" E113°57'56"	
	2. Chlorobenzenes, Chlorotoluene & PAHs	✓		
	3. SCCPs	✓		
	4. APS	✓		
5. APECs	✓	20 g	Amber Glass, washed with nitric acid	
6. Flame retardant		10 g		
7. Dyes		10 g		
8. Glycols		100 g		
9. *Pesticides		20g		
10. Banned Azodyes		20 g		
11. *free primary aromatic amines		10 g		
12. Chlorophenols & Cresols		20 g		
13. Organotin Compounds		10 g		
14. VOC & Halogenated Solvents (Remark 5)		10 g		
15. PFCs (Remark 5)		10 g		
				PE, wash with pesticide grade acetone
				Acidify to -pH 2 with H ₂ SO ₄ . Add 0.02 mL of 10% Na ₂ S ₂ O ₅ (0.008% WV). Store sample at 4°C
				Fill to full container without any air gap and acid add and store at 4°C
				Fill to full container without any air gap. Acidify to -pH 2 with HCl. Store sample at 4°C
			Add 0.02 mL of 10% Na ₂ S ₂ O ₅ (0.008% WV). Store sample at 4°C	

Tests (Conventional Parameters)	Test required (Y)	Total of sample size	Type of container	Preservation method
16. Heavy Metals except Cr(VI) (Remark 5)	✓	0.2 g	PE, wash with nitric acid	Acidify to -pH 2 with HNO ₃ . Store sample at 4°C
17. Cr(VI)	✓	2.0 g	Amber Glass, wash with nitric acid	Fill to full container without any air gap and acid add and store at 4°C
18. Adsorbable organochlorine bound halogens (AOX)		1 g		
19. Extractable organochlorines (EOX)		20 g		
20. Total organic carbon (TOC)		20 g		
21. Cyanide	✓	50 g	Amber Glass, wash with pesticide grade acetone	Adjust pH to 12-13 with 50% NaOH and store at 4°C
22. Faecal Coliform	✓	20 g	PE, cover, sterile, non-reactive	Add 20 ml of 10% Na ₂ S ₂ O ₅ . Keep in dark. Store sample at 2-8°C
23. % Solids	✓	20 g	Amber glass, wash with nitric acid	Acidify to -pH 2 with HNO ₃ . Store sample at 4°C
24. Plant Fiber Test	✓	20 g		



Annex C: Limit according to regulation / Contract limit with centralized ETP (if proceed)

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
1	DW001	生产废水排放口	总氮 (以 N 计)	15mg/L	/	/	/	/	/
2	DW001	生产废水排放口	苯胺类	1.0mg/L	/	/	/	/	/
3	DW001	生产废水排放口	可吸附有机卤化物	12mg/L	/	/	/	/	/
4	DW001	生产废水排放口	二氧化氯	0.5mg/L	/	/	/	/	/
5	DW001	生产废水排放口	溶解性总固体 (全盐类)	/mg/L	/	/	/	/	/
6	DW001	生产废水排放口	五日生化需氧量	20mg/L	/	/	/	/	/
7	DW001	生产废水排放口	硫化物	0.5mg/L	/	/	/	/	/
8	DW001	生产废水排放口	化学需氧量	80mg/L	/	/	/	/	/
9	DW001	生产废水排放口	挥发酚	0.3mg/L	/	/	/	/	/
10	DW001	生产废水排放口	色度	40mg/L	/	/	/	/	/
11	DW001	生产废水排放口	悬浮物	50mg/L	/	/	/	/	/
12	DW001	生产废水排放口	总镉	0.1mg/L	/	/	/	/	/
13	DW001	生产废水排放口	总磷 (以	0.5mg/L	/	/	/	/	/

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
		排放口	P 计)						
14	DW001	生产废水排放口	石油类	5.0mg/L	/	/	/	/	/
15	DW001	生产废水排放口	氨氮 (NH3-N)	10mg/L	/	/	/	/	/
16	DW001	生产废水排放口	pH 值	6-9	/	/	/	/	/
主要排放口合计		CODcr			22.960000	22.960000	22.960000	22.960000	22.960000
		氨氮			2.870000	2.870000	2.870000	2.870000	2.870000
		总氮 (以 N 计)			4.305000	4.305000	4.305000	4.305000	4.305000
一般排放口									
一般排放口合计		CODcr							
		氨氮							
		总氮 (以 N 计)							
全厂排放口总计									
全厂排放口总计		CODcr			22.960000	22.960000	22.960000	22.960000	22.960000
		氨氮			2.870000	2.870000	2.870000	2.870000	2.870000
		总氮 (以 N 计)			4.305000	4.305000	4.305000	4.305000	4.305000
