



# TEST REPORT

**Technical Report:****(1121)265-0022**

October 11, 2021

Date Received:

September 21, 2021

Page 1 of 24

Factory Company Name:

Top Sports Textile Ltd

Factory Address:

Manhattan SEZ (Svay Rieng), National Road # 01, Sangkat Bavet, Krong Bavet, Svay Rieng Province, Cambodia

Project No.:

N/A

Client Reference No.:

N/A

Sample Method:

I001) Incoming water – Grab

I002) Treated wastewater – 6 Hours Time – Weighted composite

I003) Sludge – Grab

Sample Pick Up Date:

September 21, 2021

Wastewater Discharge to:

Direct discharge to Tapov channel

On-Site Effluent Treatment

Yes

Plant (ETP):

Direct discharge

Discharge Type:

Off-site ETP name (if applicable):

N/A

Off-site ETP address (if applicable):

N/A

Local Regulation: / Ordinance / requirements related to wastewater discharged are followed:

General Directorate of Environment Protection

Permit Validation Date:

November 26, 2021

Parameters Exceeded Local Regulation

N/A

Legal compliance:

Comply

Conventional Parameters

Wastewater sample: Foundational

Overall Category:

Sludge sample: Detected

Test Period:

September 22, 2021 To October 11, 2021

Sample Description:

I001) Colorless liquid – Incoming water

I002) Brown liquid – Treated wastewater

I003) Black – Sludge

Parameters exceeded maximum holding time:

N/A



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 2 of 24

**REMARK**

If there are questions or concerns on this report, please contact the following persons:

General enquiry and invoicing

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This report shown the test result of the auxiliary chemical and/or raw material samples, which collected during particular factory audit. The results of this report shall not be used for any regulatory compliance purposes.

\* The sampling is agreed with client.

**BUREAU VERITAS CONSUMER  
PRODUCTS SERVICES (CAMBODIA)  
LTD.**

**RAMESH BABU  
MANAGER**

## Executive Summary

| <b>1A) Conventional Parameters</b>             | <b>I001</b>              | <b>I002</b>              | <b>I003</b> |
|--|--------------------------|--------------------------|-------------|
| Temperature                                    | NR                       | <input type="checkbox"/> | NR          |
| TSS  |                          | <input type="checkbox"/> |             |
| COD  |                          | <input type="checkbox"/> |             |
| Total-N  |                          | <input type="checkbox"/> |             |
| pH Value                                       |                          | <input type="checkbox"/> |             |
| Color [m <sup>-1</sup> ] (436nm; 525nm; 620nm) |                          | <input type="checkbox"/> |             |
| BOD <sub>5</sub>                               |                          | <input type="checkbox"/> |             |
| Ammonium-N                                     |                          | <input type="checkbox"/> |             |
| Total-P  |                          | <input type="checkbox"/> |             |
| AOX  |                          | <input type="checkbox"/> |             |
| Oil and Grease                                 |                          | <input type="checkbox"/> |             |
| Phenol   |                          | <input type="checkbox"/> |             |
| Coliform                                       |                          | <input type="checkbox"/> |             |
| Persistent Foam                                |                          | <input type="checkbox"/> |             |
| ANIONS - Cyanide                               |                          | <input type="checkbox"/> | o           |
| ANIONS - Sulfide                               |                          | <input type="checkbox"/> | NR          |
| ANIONS - Sulfite                               |                          | <input type="checkbox"/> |             |
| <b>1B) Conventional Parameters –METALS</b>     | <input type="checkbox"/> | <input type="checkbox"/> | •           |

| <b>ZDHC MRSL Substances</b>                      | <b>I001</b> | <b>I002</b> | <b>I003</b> |
|--|-------------|-------------|-------------|
| 2A) APs and APEOs                                | NR          | o           | o           |
| 2B) Chlorobenzenes and Chlorotoluenes            | NR          | o           | o           |
| 2C) Chlorophenols                                | NR          | o           | o           |
| 2D) Azo Dyes                                     | NR          | o           | o           |
| 2E) Carcinogenic Dyes                            | NR          | o           | o           |
| 2F) Disperse Dyes                                | NR          | o           | o           |
| 2G) Flame Retardants                             | NR          | o           | o           |
| 2H) Glycols                                      | NR          | o           | o           |
| 2I) Halogenated Solvents                         | NR          | o           | o           |
| 2J) Organotin Compounds                          | NR          | o           | o           |
| 2K) Perfluorinated and Polyfluorinated Chemicals | NR          | o           | o           |
| 2L) Phthalates                                   | NR          | o           | o           |
| 2M) Poly Aromatic Hydrocarbons                   | NR          | o           | o           |
| 2N) Volatile Organic Compounds                   | NR          | o           | o           |

Note / Key :

- ☐ - Meet Foundational Limit / Meet discharge license criteria
- - Exceeding Foundational Limit / Exceeding discharge license criteria
- NR - Not Requested / Not required
- - Detected
- o - Not Detected
- N/A - Not Applicable



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 4 of 24

## **Objective**

The environment samples were tested for below parameters.

- 1A) Conventional Parameters
- 1B) Conventional Parameters – METALS
- 2A) APs and APEOs
- 2B) Chlorobenzenes and Chlorotoluenes
- 2C) Chlorophenols
- 2D) Azo Dyes
- 2E) Carcinogenic Dyes
- 2F) Disperse Dyes
- 2G) Flame Retardants
- 2H) Glycols
- 2I) Halogenated Solvents
- 2J) Organotin Compounds
- 2K) Perfluorinated and Polyfluorinated Chemicals
- 2L) Phthalates
- 2M) Poly Aromatic Hydrocarbons
- 2N) Volatile Organic Compounds

## **Sampling Plan**

Basically, three environment samples were sampled per factory, including 1) Incoming water; 2) Discharge wastewater (Treated wastewater) and 3) Sludge. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

Method of sampling used is time-weighted composite grab samples (agreed with client.). Composite sampling shall be performed for no less than six hours, with no more than one hour between discrete samples. Each discrete sample shall be of equal volume. Wastewater and freshwater samples should, as much as possible, be collected simultaneously, during the time that PU is in normal operation. The sampling shall aim to analyse the snapshot of water quality characteristics of the operating PU. Under no circumstance shall samples be taken during times when the production process is not running or the wastewater is diluted due to heavy rainfall, etc.

Remark :

- Sampling procedure refers to ZDHC Wastewater and Sludge Laboratory Sampling and Analysis Plan
- Field on-site photos are attached in Appendix A, field data records are attached in Appendix C, and pipeline layout map is attached in Appendix D.



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 5 of 24

## **Test Result**

### **1A) Conventional Parameters**

#### **Temperature**

**Test Method** : Measurement by thermometer

| <b>Tested Item(s)</b> | <b>Result</b>  | <b>Unit</b> | <b>Conclusion</b> |
|-----------------------|--|-------------|-------------------|
| I002                  | 35.4 (Discharged Wastewater)<br>32.8 (Receiving body)<br>▲ 2.6<br>(Aspirational) | deg. C      | DATA              |

Note:

deg. C = degree Celsius (°C)

Foundational Limit: ▲ 15 / max. 35°C; Progressive Limit: ▲ 10 / max. 30°C; Aspirational Limit: ▲ 5 / max. 25°C

#### **Total Suspended Solids (TSS)**

**Test Method** : Reference to APHA 2540D

| <b>Tested Item(s)</b> | <b>Result</b>        | <b>Unit</b> | <b>Conclusion</b> |
|-----------------------|----------------------|-------------|-------------------|
| I002                  | 25<br>(Foundational) | mg/L        | DATA              |

Note:

mg/L = milligram per liter

Foundational Limit: 50 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

#### **Chemical Oxygen Demand (COD)**

**Test Method** : Reference to APHA 5220D

| <b>Tested Item(s)</b> | <b>Result</b>         | <b>Unit</b> | <b>Conclusion</b> |
|-----------------------|-----------------------|-------------|-------------------|
| I002                  | <40<br>(Aspirational) | mg/L        | DATA              |

Note:

mg/L = milligram per liter

Foundational Limit: 150 mg/L; Progressive Limit: 80 mg/L; Aspirational Limit: 40 mg/L

#### **Total Nitrogen (Total-N)**

**Test Method** : Reference to ISO 5663

| <b>Tested Item(s)</b> | <b>Result</b>      | <b>Unit</b> | <b>Conclusion</b> |
|-----------------------|--------------------|-------------|-------------------|
| I002                  | 6<br>(Progressive) | mg/L        | DATA              |

Note:

mg/L = milligram per liter

Foundational Limit: 20 mg/L; Progressive Limit: 10 mg/L; Aspirational Limit: 5 mg/L



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 6 of 24

#### pH Value

**Test Method** : Reference to ISO 10523

| -                   | Unit   | Result                                     |
|---------------------|--------|--|
| <b>Test Item(s)</b> | -      | I002                                       |
| <b>Parameter</b>    | -      | -  |
| Temp. of sample     | deg. C | 24.5                                       |
| pH value of sample  | -      | 8.2<br>(Comply with ZDHC WWG requirements) |
| <b>Conclusion</b>   | -      | DATA                                       |

Note:

Temp. = Temperature

deg. C = degree Celsius (°C)

Limit: 6 – 9

#### Color [ $m^{-1}$ ] (436nm; 525nm; 620nm)

**Test Method** : With reference to ISO 7887-B

| Tested Item(s) | Result                           | Unit     | Conclusion |
|----------------|----------------------------------|----------|------------|
| I002           | 2.6; 1.65; 0.82<br>(Progressive) | $m^{-1}$ | DATA       |

Note:

Foundational Limit: 7;5;3  $m^{-1}$ ; Progressive Limit: 5;3;2  $m^{-1}$ ; Aspirational Limit: 2;1;1  $m^{-1}$

#### Biochemical Oxygen Demand (BOD<sub>5</sub>)

**Test Method** : Reference to APHA 5210B (5 days)

| Tested Item(s) | Result               | Unit | Conclusion |
|----------------|----------------------|------|------------|
| I002           | <5<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 30 mg/L; Progressive Limit: 15 mg/L; Aspirational Limit: 5 mg/L

#### Ammonium Nitrogen

**Test Method** : Reference to USEPA 350.1

| Tested Item(s) | Result                 | Unit | Conclusion |
|----------------|------------------------|------|------------|
| I002           | <0.3<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 10 mg/L; Progressive Limit: 1 mg/L; Aspirational Limit: 0.5 mg/L



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 7 of 24

Total Phosphorus (Total-P)

**Test Method** : Reference to ISO 11885

| Tested Item(s) | Result                  | Unit | Conclusion |
|----------------|-------------------------|------|------------|
| I002           | <0.05<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 3 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.1 mg/L

Absorbable Organic Halogen (AOX)

**Test Method** : Reference to HJ/T 83-2001

| Tested Item(s) | Result                 | Unit | Conclusion |
|----------------|------------------------|------|------------|
| I002           | <0.1<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 5 mg/L; Progressive Limit: 1 mg/L; Aspirational Limit: 0.1 mg/L

Oil and Grease

**Test Method** : Reference to U. S. EPA 1664

| Tested Item(s) | Result                 | Unit | Conclusion |
|----------------|------------------------|------|------------|
| I002           | <0.5<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 10 mg/L; Progressive Limit: 2 mg/L; Aspirational Limit: 0.5 mg/L

Phenol

**Test Method** : Reference to APHA 5530B

| Tested Item(s) | Result                   | Unit | Conclusion |
|----------------|--------------------------|------|------------|
| I002           | <0.001<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 0.5 mg/L; Progressive Limit: 0.01 mg/L; Aspirational Limit: 0.001 mg/L



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 8 of 24

Coliform

**Test Method** : Reference to ISO 9308-1

| Tested Item(s) | Result                | Unit                | Conclusion |
|----------------|-----------------------|---------------------|------------|
| I002           | 350<br>(Foundational) | bacteria/<br>100 mL | DATA       |

Note:

bacteria/100 mL = bacteria per 100 milliliters

Foundational Limit: 400 / 100 ml; Progressive Limit: 100 / 100 ml; Aspirational Limit: 25 / 100 ml

Persistent Foam

**Test Method** : Visual

| Tested Item(s) | Result   | Unit | Conclusion |
|----------------|--|------|------------|
| I002           | No foam<br>(Comply with ZDHC WWG requirements) | -    | DATA       |

ANIONS - Cyanide

**Test Method** : Reference to APHA 4500-CN

| Tested Item(s) | Result                  | Unit  | Conclusion |
|----------------|-------------------------|-------|------------|
| I002           | <0.02<br>(Aspirational) | mg/L  | DATA       |
| I003           | <1                      | mg/kg | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 0.2 mg/L; Progressive Limit: 0.1 mg/L; Aspirational Limit: 0.05 mg/L

ANIONS - Sulfide

**Test Method** : Reference to APHA 4500 S<sup>2-</sup>-D

| Tested Item(s) | Result                  | Unit | Conclusion |
|----------------|-------------------------|------|------------|
| I002           | <0.01<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 0.5 mg/L; Progressive Limit: 0.05 mg/L; Aspirational Limit: 0.01 mg/L





Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 9 of 24

ANIONS - Sulfite

**Test Method** : Reference to U. S. EPA 377.1

| Tested Item(s) | Result                 | Unit | Conclusion |
|----------------|------------------------|------|------------|
| I002           | <0.2<br>(Aspirational) | mg/L | DATA       |

Note:

mg/L = milligram per liter

Foundational Limit: 2 mg/L; Progressive Limit: 0.5 mg/L; Aspirational Limit: 0.2 mg/L

Dry mass (total solids)

**Test Method** : Reference to US EPA 160.3 /209A

| Tested Item(s) | Result | Unit | Conclusion |
|----------------|--------|------|------------|
| I003           | 30.20  | g    | DATA       |



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 10 of 24

**1B) Conventional Parameters – METALS**

| <b>Heavy Metals</b>  | <b>I001 (mg/L)</b>      | <b>I002 (mg/L)</b>      | <b>I003 (mg/kg)</b> |
|--|-------------------------|-------------------------|---------------------|
| Antimony( Sb )<br><i>Foundational Limit: 0.1 mg/L;<br/>Progressive Limit: 0.05 mg/L;<br/>Aspirational Limit: 0.01 mg/L</i>         | ND<br>(Aspirational)    | 0.021<br>(Progressive)  | NR                  |
| Chromium( Cr ), total<br><i>Foundational Limit: 0.2 mg/L;<br/>Progressive Limit: 0.1 mg/L;<br/>Aspirational Limit: 0.05 mg/L</i>   | 0.002<br>(Aspirational) | 0.006<br>(Aspirational) |                     |
| Cobalt( Co )<br><i>Foundational Limit: 0.05 mg/L;<br/>Progressive Limit: 0.02 mg/L;<br/>Aspirational Limit: 0.01 mg/L</i>          | NR                      | ND<br>(Aspirational)    |                     |
| Copper( Cu )<br><i>Foundational Limit: 1 mg/L;<br/>Progressive Limit: 0.5 mg/L;<br/>Aspirational Limit: 0.25 mg/L</i>              | NR                      | ND<br>(Aspirational)    |                     |
| Nickel( Ni )<br><i>Foundational Limit: 0.2 mg/L;<br/>Progressive Limit: 0.1 mg/L;<br/>Aspirational Limit: 0.05 mg/L</i>            | 0.001<br>(Aspirational) | 0.007<br>(Aspirational) |                     |
| Silver( Ag )<br><i>Foundational Limit: 0.1 mg/L;<br/>Progressive Limit: 0.05 mg/L;<br/>Aspirational Limit: 0.005 mg/L</i>          | NR                      | ND<br>(Aspirational)    |                     |
| Zinc( Zn )<br><i>Foundational Limit: 5 mg/L;<br/>Progressive Limit: 1 mg/L;<br/>Aspirational Limit: 0.5 mg/L</i>                   | 0.06<br>(Aspirational)  | 0.07<br>(Aspirational)  |                     |
| Arsenic( As )<br><i>Foundational Limit: 0.05 mg/L;<br/>Progressive Limit: 0.01 mg/L;<br/>Aspirational Limit: 0.005 mg/L</i>        | NR                      | ND<br>(Aspirational)    | ND                  |
| Cadmium( Cd )<br><i>Foundational Limit: 0.1 mg/L;<br/>Progressive Limit: 0.05 mg/L;<br/>Aspirational Limit: 0.01 mg/L</i>          | NR                      | ND<br>(Aspirational)    | ND                  |
| Chromium VI( CrVI )<br><i>Foundational Limit: 0.05 mg/L;<br/>Progressive Limit: 0.005 mg/L;<br/>Aspirational Limit: 0.001 mg/L</i> | NR                      | ND<br>(Aspirational)    | ND                  |
| Lead( Pb )<br><i>Foundational Limit: 0.1 mg/L;<br/>Progressive Limit: 0.05 mg/L;<br/>Aspirational Limit: 0.01 mg/L</i>             | ND<br>(Aspirational)    | ND<br>(Aspirational)    | 3.7                 |
| Mercury( Hg )<br><i>Foundational Limit: 0.01 mg/L;<br/>Progressive Limit: 0.005 mg/L;<br/>Aspirational Limit: 0.001 mg/L</i>       | NR                      | ND<br>(Aspirational)    | ND                  |



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 11 of 24

Others Priority Chemical Groups

|  | <b>I001 (<math>\mu\text{g/L}</math>)</b> | <b>I002 (<math>\mu\text{g/L}</math>)</b> | <b>I003 (<math>\text{mg/kg}</math>)</b> |
|--|--|--|---|
| 2A) APs and APEOs                                | NR                                       | ND                                       | ND                                      |
| 2B) Chlorobenzenes and Chlorotoluenes            | NR                                       | ND                                       | ND                                      |
| 2C) Chlorophenols                                | NR                                       | ND                                       | ND                                      |
| 2D) Azo Dyes                                     | NR                                       | ND                                       | ND                                      |
| 2E) Carcinogenic Dyes                            | NR                                       | ND                                       | ND                                      |
| 2F) Disperse Dyes                                | NR                                       | ND                                       | ND                                      |
| 2G) Flame Retardants                             | NR                                       | ND                                       | ND                                      |
| 2H) Glycols                                      | NR                                       | ND                                       | ND                                      |
| 2I) Halogenated Solvents                         | NR                                       | ND                                       | ND                                      |
| 2J) Organotin Compounds                          | NR                                       | ND                                       | ND                                      |
| 2K) Perfluorinated and Polyfluorinated Chemicals | NR                                       | ND                                       | ND                                      |
| 2L) Phthalates                                   | NR                                       | ND                                       | ND                                      |
| 2M) Poly Aromatic Hydrocarbons                   | NR                                       | ND                                       | ND                                      |
| 2N) Volatile Organic Compounds                   | NR                                       | ND                                       | ND                                      |

Remark :

- Test method, reporting limit and list of chemical are summarized in Appendix B.
- ND = Not detected (Please refer to reporting limit shown in Appendix B).

**APPENDIX A - Photo of the Sample/ Sampling Location**

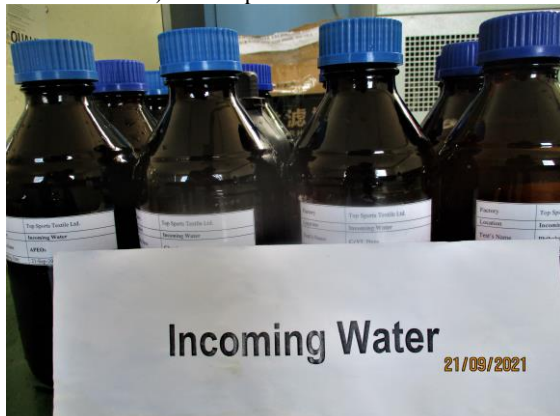
I001) Sampling Point  
N 11° 2' 51"  
E 106° 7' 26"



I001) Sampling Point Surrounding Environment  
N 11° 2' 51"  
E 106° 7' 26"



I001) All sampled bottles with label



I001) pH value



I001) Sample for Phthalate Testing



I001) Packaging





I002) Sampling Point

N 11° 2' 48"

E 106° 7' 31"



I002) Sampling Point Surrounding Environment

N 11° 2' 48"

E 106° 7' 31"



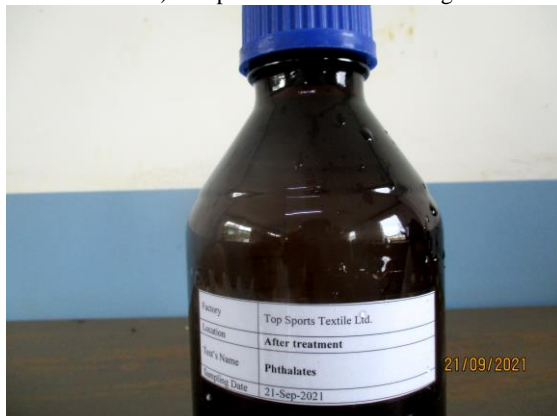
I002) All sampled bottles with label



I002) pH value



I002) Sample for Phthalate Testing



I002) Packaging



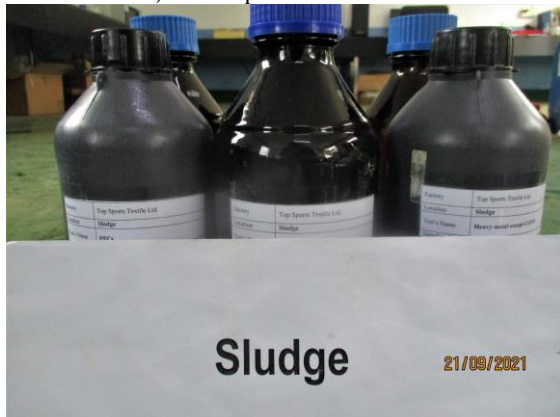
I003) Sampling Point  
N 11° 2' 51"  
E 106° 7' 29"



I003) Sampling Point Surrounding Environment  
N 11° 2' 51"  
E 106° 7' 29"



I003) All sampled bottles with label



I003) Sample for Phthalate Testing



I003) Packaging





Technical Report:

(1121)265-0022

October 11, 2021

Page 15 of 24

## APPENDIX B

| Group   | Substance (Testing parameter)  | CAS No.   | Report Limit      |                | Name of the testing method  |
|---|--------------------------------|---|-------------------|----------------|---|
|   |                                |   | Wastewater (ug/L) | Sludge (mg/kg) |   |
| 2A. Alkylphenol (AP) and Alkylphenol Ethoxylates (APEOs): including all isomers | Nonylphenol NP, mixed isomers  | Various (incl. 104-40-5, 11066-49-2, 25154-52-3, 84852-15-3)              | 5                 | 0.4            | NP/OP: ISO 18857-2 (modified dichloromethane extraction) or ASTM D7065 (GC/MS or LC/MS(-MS))<br><br>OPEO/NPEO: ISO18857-2 or ASTM D7065(LC/MS; GC/MS or LC/MSMS for n=1,2)<br><br>APEO 1-18 |
|   | Octylphenol OP, mixed isomers  | Various (incl. 140-66-9, 1806-26-4, 27193-28-8)                           | 5                 | 0.4            |   |
|   | Octylphenol ethoxylates (OPEO) | Various (incl. 9002-93-1, 9036-19-5, 68987-90-6)                          | 5                 | 0.4            |   |
|   | Nonylphenol ethoxylates (NPEO) | Various (inc. 9016-45-9, 26027-38-3, 37205-87-1, 68412-54-4, 127087-87-0) | 5                 | 0.4            |   |
| 2B. Chlorobenzenes and Chlorotoluenes   | Monochlorobenzene              | 108-90-7  | 0.2               | 0.2            | USEPA 8260B, 8270D. Dichloromethane extraction followed by GC/MS  |
|   | 1,2-Dichlorobenzene            | 95-50-1   | 0.2               | 0.2            |   |
|   | 1,3-Dichlorobenzene            | 541-73-1  | 0.2               | 0.2            |   |
|   | 1,4-Dichlorobenzene            | 106-46-7  | 0.2               | 0.2            |   |
|   | 1,2,3-Trichlorobenzene         | 87-61-6   | 0.2               | 0.2            |   |
|   | 1,2,4-Trichlorobenzene         | 120-82-1  | 0.2               | 0.2            |   |
|   | 1,3,5-Trichlorobenzene         | 108-70-3  | 0.2               | 0.2            |   |
|   | 1,2,3,4-Tetrachlorobenzene     | 634-66-2  | 0.2               | 0.2            |   |
|   | 1,2,3,5-Tetrachlorobenzene     | 634-90-2  | 0.2               | 0.2            |   |
|   | 1,2,4,5-Tetrachlorobenzene     | 95-94-3   | 0.2               | 0.2            |   |
|   | Pentachlorobenzene             | 608-93-5  | 0.2               | 0.2            |   |
|   | Hexachlorobenzene              | 118-74-1  | 0.2               | 0.2            |   |
|   | 2-Chlorotoluene                | 95-49-8   | 0.2               | 0.2            |   |
|   | 3-Chlorotoluene                | 108-41-8  | 0.2               | 0.2            |   |
|   | 4-Chlorotoluene                | 106-43-4  | 0.2               | 0.2            |   |
|   | 2,3-Dichlorotoluene            | 32768-54-0  | 0.2               | 0.2            |   |
|   | 2,4-Dichlorotoluene            | 95-73-8   | 0.2               | 0.2            |   |
|   | 2,5-Dichlorotoluene            | 19398-61-9  | 0.2               | 0.2            |   |
|   | 2,6-Dichlorotoluene            | 118-69-4  | 0.2               | 0.2            |   |
|   | 3,4-Dichlorotoluene            | 95-75-0   | 0.2               | 0.2            |   |
|   | 3,5-Dichlorotoluene            | 25186-47-4  | 0.2               | 0.2            |   |
|   | 2,3,4-Trichlorotoluene         | 7359-72-0   | 0.2               | 0.2            |   |
|   | 2,3,6-Trichlorotoluene         | 2077-46-5   | 0.2               | 0.2            |   |
|   | 2,4,5-Trichlorotoluene         | 6639-30-1   | 0.2               | 0.2            |   |
|   | 2,4,6-Trichlorotoluene         | 23749-65-7  | 0.2               | 0.2            |   |
|   | 3,4,5-Trichlorotoluene         | 21472-86-6  | 0.2               | 0.2            |   |
|   | 2,3,4,5-Tetrachlorotoluene     | 76057-12-0  | 0.2               | 0.2            |   |
|   | 2,3,5,6-Tetrachlorotoluene     | 29733-70-8  | 0.2               | 0.2            |   |
|   | 2,3,4,6-Tetrachlorotoluene     | 875-40-1  | 0.2               | 0.2            |   |
|   | Pentachlorotoluene             | 877-11-2  | 0.2               | 0.2            |   |
| 2C. Chlorophenols   | 2-Chlorophenol                 | 95-57-8   | 0.5               | 0.05           | USEPA 8270 D Solvent extraction, derivatisation with KOH, acetic anhydride followed by GC/MS  |
|   | 3-Chlorophenol                 | 108-43-0  | 0.5               | 0.05           |   |
|   | 4-Chlorophenol                 | 106-48-9  | 0.5               | 0.05           |   |
|   | 2,3-Dichlorophenol             | 576-24-9  | 0.5               | 0.05           |   |
|   | 2,4-Dichlorophenol             | 120-83-2  | 0.5               | 0.05           |   |
|   | 2,5-Dichlorophenol             | 583-78-8  | 0.5               | 0.05           |   |
|   | 2,6-Dichlorophenol             | 87-65-0   | 0.5               | 0.05           |   |
|   | 3,4-Dichlorophenol             | 95-77-2   | 0.5               | 0.05           |   |
|   | 3,5-Dichlorophenol             | 591-35-5  | 0.5               | 0.05           |   |



| Group  | Substance (Testing parameter)                     | CAS No.    | Report Limit      |                | Name of the testing method   |
|--|---|------------|-------------------|----------------|--|
|  |   |            | Wastewater (ug/L) | Sludge (mg/kg) |  |
|  | 2,3,4-Trichlorophenol                             | 15950-66-0 | 0.5               | 0.05           |  |
|  | 2,3,5-Trichlorophenol                             | 933-78-8   | 0.5               | 0.05           |  |
|  | 2,3,6-Trichlorophenol                             | 933-75-5   | 0.5               | 0.05           |  |
|  | 2,4,5-Trichlorophenol                             | 95-95-4    | 0.5               | 0.05           |  |
|  | 2,4,6-Trichlorophenol                             | 88-06-2    | 0.5               | 0.05           |  |
|  | 3,4,5-Trichlorophenol                             | 609-19-8   | 0.5               | 0.05           |  |
|  | 2,3,4,5-Tetrachlorophenol                         | 4901-51-3  | 0.5               | 0.05           |  |
|  | 2,3,4,6-Tetrachlorophenol                         | 58-90-2    | 0.5               | 0.05           |  |
|  | 2,3,5,6-Tetrachlorophenol                         | 935-95-5   | 0.5               | 0.05           |  |
|  | Pentachlorophenol (PCP)                           | 87-86-5    | 0.5               | 0.05           |  |
| 2D. Dyes - Azo (Forming Restricted Amines)   | 4,4'-Methylene-bis-(2-chloro-aniline)             | 101-14-4   | 0.1               | 0.2            | EN 14362. Reduction step with Sodiumdithionite, solvent extraction, GC/MS or LC/MS |
|  | 4,4'-methylenedianiline                           | 101-77-9   | 0.1               | 0.2            |  |
|  | 4,4'-Oxydianiline                                 | 101-80-4   | 0.1               | 0.2            |  |
|  | 4-Chloroaniline                                   | 106-47-8   | 0.1               | 0.2            |  |
|  | 3,3'-Dimethoxybenzidine                           | 119-90-4   | 0.1               | 0.2            |  |
|  | 3,3'-Dimethylbenzidine                            | 119-93-7   | 0.1               | 0.2            |  |
|  | 6-methoxy-m-toluidine (p-Cresidine)               | 120-71-8   | 0.1               | 0.2            |  |
|  | 2,4,5-Trimethylaniline                            | 137-17-7   | 0.1               | 0.2            |  |
|  | 4,4'-Thiodianiline                                | 139-65-1   | 0.1               | 0.2            |  |
|  | 4-Aminoazobenzene                                 | 60-09-3    | 0.1               | 0.2            |  |
|  | 4-Methoxy-m-phenylenediamine                      | 615-05-4   | 0.1               | 0.2            |  |
|  | 4,4'-Methylene-di-o-toluidine                     | 838-88-0   | 0.1               | 0.2            |  |
|  | 2,6-Xyldine                                       | 87-62-7    | 0.1               | 0.2            |  |
|  | o-Anisidine                                       | 90-04-0    | 0.1               | 0.2            |  |
|  | 2-Naphthylamine                                   | 91-59-8    | 0.1               | 0.2            |  |
|  | 3,3'-Dichlorobenzidine                            | 91-94-1    | 0.1               | 0.2            |  |
|  | 4-Aminodiphenyl                                   | 92-67-1    | 0.1               | 0.2            |  |
|  | Benzidine   | 92-87-5    | 0.1               | 0.2            |  |
|  | o-Toluidine                                       | 95-53-4    | 0.1               | 0.2            |  |
|  | 2,4-Xyldine                                       | 95-68-1    | 0.1               | 0.2            |  |
|  | 4-Chloro-o-toluidine                              | 95-69-2    | 0.1               | 0.2            |  |
|  | 4-Methyl-m-phenylenediamine                       | 95-80-7    | 0.1               | 0.2            |  |
|  | o-Aminoazotoluene                                 | 97-56-3    | 0.1               | 0.2            |  |
|  | 5-nitro-o-toluidine                               | 99-55-8    | 0.1               | 0.2            |  |
| 2E. Dyes- Carcinogenic or Equivalent Concern | C.I. Direct Black 38                              | 1937-37-7  | 500               | 10             | Liquid Extraction LC/MS  |
|  | C.I. Direct Blue 6                                | 2602-46-2  | 500               | 10             |  |
|  | C.I. Acid Red 26                                  | 3761-53-3  | 500               | 10             |  |
|  | C.I. Basic Red 9                                  | 569-61-9   | 500               | 10             |  |
|  | C.I. Direct Red 28                                | 573-58-0   | 500               | 10             |  |
|  | C.I. Basic Violet 14                              | 632-99-5   | 500               | 10             |  |
|  | C.I. Disperse Blue 1                              | 2475-45-8  | 500               | 10             |  |
|  | C.I. Disperse Blue 3                              | 2475-46-9  | 500               | 10             |  |
|  | C.I. Basic Blue 26 (with Michler's Ketone > 0.1%) | 2580-56-5  | 500               | 10             |  |
|  | C.I. Basic Green 4 (malachite green chloride)     | 569-64-2   | 500               | 10             |  |
|  | C.I. Basic Green 4 (malachite green oxalate)      | 2437-29-8  | 500               | 10             |  |
|  | C.I. Basic Green 4(malachite green)               | 10309-95-2 | 500               | 10             |  |
|  | Disperse Orange 11                                | 82-28-0    | 500               | 10             |  |





Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 17 of 24

| Group                           | Substance (Testing parameter)                       | CAS No.    | Report Limit      |                | Name of the testing method   |
|---------------------------------|---|------------|-------------------|----------------|--|
|                                 |   |            | Wastewater (ug/L) | Sludge (mg/kg) |  |
| 2F. Dyes-disperse (sensitizing) | Disperse Yellow 1                                   | 119-15-3   | 50                | 2              | Liquid Extraction LC/MS  |
|                                 | Disperse Blue 102                                   | 12222-97-8 | 50                | 2              |  |
|                                 | Disperse Blue 106                                   | 12223-01-7 | 50                | 2              |  |
|                                 | Disperse Yellow 39                                  | 12236-29-2 | 50                | 2              |  |
|                                 | Disperse Orange 37/59/76                            | 13301-61-6 | 50                | 2              |  |
|                                 | Disperse Brown 1                                    | 23355-64-8 | 50                | 2              |  |
|                                 | Disperse Orange 1                                   | 2581-69-3  | 50                | 2              |  |
|                                 | Disperse Yellow 3                                   | 2832-40-8  | 50                | 2              |  |
|                                 | Disperse Red 11                                     | 2872-48-2  | 50                | 2              |  |
|                                 | Disperse Red 1                                      | 2872-52-8  | 50                | 2              |  |
|                                 | Disperse Red 17                                     | 3179-89-3  | 50                | 2              |  |
|                                 | Disperse Blue 7                                     | 3179-90-6  | 50                | 2              |  |
|                                 | Disperse Blue 26                                    | 3860-63-7  | 50                | 2              |  |
|                                 | Disperse Yellow 49                                  | 54824-37-2 | 50                | 2              |  |
|                                 | Disperse Blue 35                                    | 12222-75-2 | 50                | 2              |  |
|                                 | Disperse Blue 124                                   | 61951-51-7 | 50                | 2              |  |
|                                 | Disperse Yellow 9                                   | 6373-73-5  | 50                | 2              |  |
|                                 | Disperse Orange 3                                   | 730-40-5   | 50                | 2              |  |
|                                 | Disperse Blue 35                                    | 56524-77-7 | 50                | 2              |  |
| 2G. Flame Retardants            | Tris(2-chloroethyl) phosphate (TCEP)                | 115-96-8   | 5                 | 1              | ISO 22032, USEPA527 and USEPA8321B. Dichloromethane extraction GC/MS or LC/MS(-MS) |
|                                 | Decabromodiphenyl ether (DecaBDE)                   | 1163-19-5  | 5                 | 1              |  |
|                                 | Tris(2,3-dibromopropyl) phosphate (TRIS/TDBPP)      | 126-72-7   | 5                 | 1              |  |
|                                 | Pentabromodiphenyl ether (PentaBDE)                 | 32534-81-9 | 5                 | 1              |  |
|                                 | Octabromodiphenyl ether (OctaBDE)                   | 32536-52-0 | 5                 | 1              |  |
|                                 | Bis(2,3-dibromopropyl) phosphate (BIS/BDBPP)        | 5412-25-9  | 5                 | 1              |  |
|                                 | Tris(aziridinyl)-phosphineoxide (TEPA)              | 545-55-1   | 5                 | 1              |  |
|                                 | Polybromobiphenyls (PBBs)                           | 59536-65-1 | 5                 | 1              |  |
|                                 | Tetrabromobisphenol A (TBBPA)                       | 79-94-7    | 5                 | 1              |  |
|                                 | Hexabromocyclododecane (HBCDD)                      | 3194-55-6  | 5                 | 1              |  |
|                                 | 2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)         | 3296-90-0  | 5                 | 1              |  |
|                                 | Tris(1,3-dichloro-isopropyl) phosphate (TDCP)       | 13674-87-8 | 5                 | 1              |  |
|                                 | Short chain chlorinated paraffins (SCCPs) (C10-C13) | 85535-84-8 | 5                 | 1              |  |
| 2H. Glycols                     | Bis(2-methoxyethyl)-ether                           | 111-96-6   | 50                | 10             | US EPA 8270 Liquid Extraction LC/MS  |
|                                 | 2-ethoxyethanol                                     | 110-80-5   | 50                | 10             |  |
|                                 | 2-ethoxyethyl acetate                               | 111-15-9   | 50                | 10             |  |
|                                 | Ethylene glycol dimethyl ether                      | 110-71-4   | 50                | 10             |  |
|                                 | 2-methoxyethanol                                    | 109-86-4   | 50                | 10             |  |
|                                 | 2-methoxyethylacetate                               | 110-49-6   | 50                | 10             |  |
|                                 | 2-methoxypropylacetate                              | 70657-70-4 | 50                | 10             |  |
|                                 | Triethylene glycol dimethyl ether                   | 112-49-2   | 50                | 10             |  |

| Group  | Substance (Testing parameter)            | CAS No.                | Report Limit      |                | Name of the testing method  |
|--|--|------------------------|-------------------|----------------|---|
|  |  |                        | Wastewater (ug/L) | Sludge (mg/kg) |   |
| 2I. Halogenated Solvents                                     | 1,2-Dichloroethane                       | 107-06-2               | 1                 | 2              | USEPA 8260B<br>Headspace GC/MS or<br>Purgeand-Trap-GC/MS  |
|  | Methylene Chloride                       | 75-09-2                | 1                 | 2              |   |
|  | Trichloroethylene                        | 79-01-6                | 1                 | 2              |   |
|  | Tetrachloroethylene                      | 127-18-4               | 1                 | 2              |   |
| 2J. Organotin Compounds                                      | Mono-, di- and tri-methyltin derivatives | Multiple               | 0.01              | 0.2            | ISO 17353<br>Derivatisation with<br>NaB(C <sub>2</sub> H <sub>5</sub> ) GC/MS   |
|  | Mono-, di- and tri-butyltin derivatives  | Multiple               | 0.01              | 0.2            |   |
|  | Mono-, di- and tri-phenyltin derivatives | Multiple               | 0.01              | 0.2            |   |
|  | Mono-, di- and tri-octyltin derivatives  | Multiple               | 0.01              | 0.2            |   |
|  | Monomethyltin                            | Multiple               | 0.01              | 0.2            |   |
|  | Dimethyltin                              | Multiple               | 0.01              | 0.2            |   |
|  | Trimethyltin                             | Multiple               | 0.01              | 0.2            |   |
|  | Monobutyltin                             | Multiple               | 0.01              | 0.2            |   |
|  | Dibutyltin                               | Multiple               | 0.01              | 0.2            |   |
|  | Tributyltin                              | Multiple               | 0.01              | 0.2            |   |
|  | Monophenyltin                            | Multiple               | 0.01              | 0.2            |   |
|  | Diphenyltin                              | Multiple               | 0.01              | 0.2            |   |
|  | Triphenyltin                             | Multiple               | 0.01              | 0.2            |   |
|  | Monooctyltin                             | Multiple               | 0.01              | 0.2            |   |
|  | Diocetyl tin                             | Multiple               | 0.01              | 0.2            |   |
|  | Triocetyl tin                            | Multiple               | 0.01              | 0.2            |   |
| 2K. Perfluorinated and Polyfluorinated Chemicals (PFCs)      | Perfluorooctanesulfonic acid (PFOS)      | 1763-23-1              | 0.01              | 0.10           | DIN 38407-42<br>(modified)<br>Ionic PFC:<br>Concentration or direct injection, LC/MS(-MS);<br>Non-ionic PFC (FTOH): derivatisation with acetic anhydride, followed by GC/MS |
|  | Perfluoro-n-octanoic acid (PFOA)         | 335-67-1               | 0.01              | 0.10           |   |
|  | Perfluorobutanesulfonic acid (PFBS)      | 29420-49-3, 29420-43-3 | 0.01              | 0.10           |   |
|  | Perfluoro-n-hexanoic acid (PFHxA)        | 307-24-4               | 0.01              | 0.10           |   |
|  | 8:2 FTOH                                 | 678-39-7               | 1                 | 1              |   |
|  | 6:2 FTOH                                 | 647-42-7               | 1                 | 1              |   |
| 2L. Phthalates (including all other esters of phthalic acid) | Di-2-ethylhexyl phthalate (DEHP)         | 117-81-7               | 10                | 2              | US EPA 8270D, ISO 18856<br>Dichloromethane extraction GC/MS   |
|  | Dimethoxyethyl phthalate (DMEP)          | 117-82-8               | 10                | 2              |   |
|  | Di-n-octyl phthalate (DNOP)              | 117-84-0               | 10                | 2              |   |
|  | Di-iso-decyl phthalate (DIDP)            | 26761-40-0             | 10                | 2              |   |
|  | Di-iso-nonyl phthalate (DINP)            | 28553-12-0             | 10                | 2              |   |
|  | Di-n-hexyl phthalate (DnHP)              | 84-75-3                | 10                | 2              |   |
|  | Dibutyl phthalate (DBP)                  | 84-74-2                | 10                | 2              |   |
|  | Butyl benzyl phthalate (BBP)             | 85-68-7                | 10                | 2              |   |
|  | Dinonyl phthalate (DNP)                  | 84-76-4                | 10                | 2              |   |
|  | Diethyl phthalate (DEP)                  | 84-66-2                | 10                | 2              |   |
|  | Di-n-propyl phthalate (DPRP)             | 131-16-8               | 10                | 2              |   |
|  | Di-iso-butyl phthalate (DIBP)            | 84-69-5                | 10                | 2              |   |
|  | Di-cyclohexyl phthalate (DCHP)           | 84-61-7                | 10                | 2              |   |

| Group                                 | Substance (Testing parameter)  | CAS No.                 | Report Limit      |                | Name of the testing method   |
|---------------------------------------|--|-------------------------|-------------------|----------------|--|
|                                       |  |                         | Wastewater (ug/L) | Sludge (mg/kg) |  |
|                                       | Di-iso-octyl phthalate (DIOP)  | 27554-26-3              | 10                | 2              |  |
|                                       | 1,2-benzenedicarboxylic acid, di-C7-11-branched and linearalkyl esters (DHNUP) | 68515-42-4              | 10                | 2              |  |
|                                       | 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)    | 71888-89-6              | 10                | 2              |  |
| 2M. Poly Aromatic Hydrocarbons (PaHs) | Benzo[a]pyrene (BaP)   | 50-32-8                 | 1                 | 0.2            | DIN 38407-39<br>Solvent extraction<br>GC/MS  |
|                                       | Anthracene   | 120-12-7                | 1                 | 0.2            |  |
|                                       | Pyrene   | 129-00-0                | 1                 | 0.2            |  |
|                                       | Benzo[ghi]perylene   | 191-24-2                | 1                 | 0.2            |  |
|                                       | Benzo[e]pyrene   | 192-97-2                | 1                 | 0.2            |  |
|                                       | Indeno[1,2,3-cd]pyrene   | 193-39-5                | 1                 | 0.2            |  |
|                                       | Benzo[j]fluoranthene   | 205-82-3                | 1                 | 0.2            |  |
|                                       | Benzo[b]fluoranthene   | 205-99-2                | 1                 | 0.2            |  |
|                                       | Fluoranthene   | 206-44-0                | 1                 | 0.2            |  |
|                                       | Benzo[k]fluoranthene   | 207-08-9                | 1                 | 0.2            |  |
|                                       | Acenaphthylene   | 208-96-8                | 1                 | 0.2            |  |
|                                       | Chrysene   | 218-01-9                | 1                 | 0.2            |  |
|                                       | Dibenz[a,h]anthracene  | 53-70-3                 | 1                 | 0.2            |  |
|                                       | Benzo[a]anthracene   | 56-55-3                 | 1                 | 0.2            |  |
|                                       | Acenaphthene   | 83-32-9                 | 1                 | 0.2            |  |
|                                       | Phenanthrene   | 85-01-8                 | 1                 | 0.2            |  |
|                                       | Fluorene   | 86-73-7                 | 1                 | 0.2            |  |
|                                       | Naphthalene  | 91-20-3                 | 1                 | 0.2            |  |
| 2N. Volatile Organic Compound (VOCs)  | Benzene  | 71-43-2                 | 1                 | 2              | ISO 11423-1<br>Headspace- or Purge-and-Trap-GC/MS  |
|                                       | Xylene   | 1330-20-7               | 1                 | 2              |  |
|                                       | o-cresol   | 95-48-7                 | 1                 | 2              |  |
|                                       | p-cresol   | 106-44-5                | 1                 | 2              |  |
|                                       | m-cresol   | 108-39-4                | 1                 | 2              |  |
| 1A. Conventional Parameters           | Temperature  | —                       | N/A               | N/A            | Apply the standard methods that best apply to the region (ISO, EU, US, China), please refer to ZDHC Wastewater Guidelines for more details on the testing method and the levels (Foundational, Progressive, and Aspirational). |
|                                       | TSS  | —                       | N/A               | N/A            |  |
|                                       | COD  | —                       | N/A               | N/A            |  |
|                                       | Total-N  | —                       | N/A               | N/A            |  |
|                                       | pH   | —                       | N/A               | N/A            |  |
|                                       | Color [m <sup>-1</sup> ] (436nm; 525nm; 620nm)                                 | —                       | N/A               | N/A            |  |
|                                       | BOD5   | —                       | N/A               | N/A            |  |
|                                       | Ammonium-N   | —                       | N/A               | N/A            |  |
|                                       | Total-P  | —                       | N/A               | N/A            |  |
|                                       | AoX  | —                       | N/A               | N/A            |  |
|                                       | Oil and Grease   | —                       | N/A               | N/A            |  |
|                                       | Phenol   | —                       | N/A               | N/A            |  |
|                                       | Coliform(bacteria/100ml)   | —                       | N/A               | N/A            |  |
|                                       | Persistent Foam  | —                       | Not visible       | Not visible    | Cyanide: With reference to APHA 4500 CN—B,C&E and followed by UV analysis  |
|                                       | <b>ANIONS</b>  |                         |                   |                |  |
|                                       | Cyanide( CN- )   | Various (incl. 57-12-5) | 0.02              | 1              |  |
|                                       | Sulfide  | —                       | N/A               | N/A            |  |
|                                       | Sulfite  | —                       | N/A               | N/A            |  |
| 1B. Conventional Parameters -         | Antimony( Sb )   | 7440-36-0               | 0.001             | N/A            | Various<br>Acid Digestion with   |
|                                       | Chromium( Cr ), total  | 7440-47-3               | 0.001             | N/A            |  |



Technical Report:

**(1121)265-0022**

**October 11, 2021**

Page 20 of 24

| Group                             | Substance (Testing parameter) | CAS No.    | Report Limit      |                | Name of the testing method   |
|-----------------------------------|-------------------------------|------------|-------------------|----------------|--|
|                                   |                               |            | Wastewater (ug/L) | Sludge (mg/kg) |  |
| <b>METALS</b>                     | Cobalt( Co )                  | 7440-48-4  | 0.001             | N/A            | ICP analysis<br><br>Please refer to ZDHC Wastewater Guidelines for more details on the testing method and the levels (Foundational, Progressive, and Aspirational).<br><br>Cr(VI): Various Solvent extraction and derivatisation followed by UV analysis |
|                                   | Copper( Cu )                  | 7440-50-8  | 0.001             | N/A            |  |
|                                   | Nickel (Ni)                   | 7440-02-0  | 0.001             | N/A            |  |
|                                   | Silver (Ag)                   | 7440-22-4  | 0.001             | N/A            |  |
|                                   | Zinc( Zn )                    | 7440-66-6  | 0.001             | N/A            |  |
|                                   | Arsenic (As)                  | 7440-38-2  | 0.001             | 2              |  |
|                                   | Cadmium( Cd )                 | 7440-43-9  | 0.0001            | 2              |  |
|                                   | Chromium VI( CrVI )           | 18540-29-9 | 0.001             | 2              |  |
|                                   | Lead( Pb )                    | 7439-92-1  | 0.001             | 2              |  |
|                                   | Mercury (Hg)                  | 7439-97-6  | 0.00005           | 0.2            |  |
| <b>3. Conventional Parameters</b> | Dry mass (total solids)       | —          | N/A               | N/A            | US EPA 160.3 / 209A  |

Note / Key :

U. S. EPA = United States Environmental Protection Agency

APHA = American Public Health Association



Technical Report:

(1121)265-0022

October 11, 2021

Page 21 of 24

## APPENDIX C – Onsite Field Data Record Sheet

| FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE<br>(COMPOSITE / INDIVIDUAL SAMPLING) |   | CPSD-AN-00613-DATA 04  |  |
|---|---|--|--|
| General Data  |   | Issue Date:  |  |
| Laboratory Sample Number  |   | Version No.:   | 13   |
| Client Name   |   | Business Line:   | Analytical   |
| Field Contact Person  |   | Lay: +855-88 4833 377  |  |
| Project (Facility Name and Address)   |   | Top Sports Textile Ltd.  |  |
| Sampling Location / Description   |   | Manhattan SEZ (Svay Rieng), National road #01, Sangkat Bavet, Krong Bavet, Svay Rieng Province, Cambodia |  |
| Sample Identification   |   | Zero discharge with sampling plan  |  |
| Sample Type   |   | Grab sample  |  |
| Name of Sampler   |   | Danou  |  |
| Date and time collected   |   | 9/21/2021  |  |
| Discharge mode  |   | Direct discharge to Tapov channel  |  |
| Factory Type  |   | Dyeing   |  |
|   |   | *Note: It would be selected more than one  |  |
| Field Data  |   |  |  |
| Arrival Time: 9:00  | Sampling Time: 10:00  | Departure Time: 16:00  |  |
| Field Parameters  | pH: 5.9   | Temp: 34.4   | Color: Colorless   |
| Control No. of field equipment  |   | Foam: NO   | Flow rate:   |
| GPS   |   |  |  |
| Factory with effluent treatment plant   | <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO |  |  |
| Sample matrix   | <input checked="" type="checkbox"/> X                               | Incoming water   |  |
|   |   | Wastewater before treatment  |  |
|   |   | Wastewater after treatment – water at discharge point  |  |
|   |   | Sludge   |  |
| Tests (MRSL Parameters)   | Total of sample size (mL)   | Type of container  | Preservation method  |
| Phthalate   | 1000  | Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use             | Without adding acid<br>Store sample at 6°C   |
| Chlorobenzenes, Chlorotoluene & Polynuclear aromatic hydrocarbon (PAHs)         |   |  |  |
| SCCPs   |   |  |  |
| APs   |   |  |  |
| APEOs   |   |  |  |
| Chlorophenols & Cresols   |   |  |  |
| Dyes  | 1000  |  |  |
| Glycols   |   |  |  |
| Brominated and chlorinated Flame retardants                                     |   |  |  |
| Banned Azodyes  | 1000  |  |  |
| Organotin Compounds   | 1000  | Amber Glass, wash with nitric acid, Pre-add 6.5 mL of 2M HCl   | Acidify to pH 2 with HCl and store at 6°C  |
| Chlorinated solvent / Volatile organic compounds (VOCs)                         |   |  | Fill to full container without air gap, Acidify to pH 2 with HCl and store at 6°C                      |
| PFCs  | 10  | PE, wash with pesticide grade Acetone  | Without adding acid<br>Store sample at 6°C   |
| Heavy Metals except Cr(VI)  | 1000  | PE, wash with nitric acid, Pre-add 6.5mL of 2M HNO3  | Acidify to pH 2 with HNO3 and store at 6°C   |
| Cr(VI)  | 1000  | Amber Glass, wash with pesticide grade acetone   | Fill to full container without air gap, adjust pH to 9.0 – 9.5 by adding ammonium buffer, store at 6°C |
| Observation/ Remark:  |   |  |  |

Recorded by:

Full name:

Pao Danou

Date:

21.09.2021

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 are stored in portable freezer / fridge that is maintained in 1-4°C

Signatory of Factory Representative:

Full Name:

Heng Chamuthey

Date:

21/09/2021



Technical Report:

(1121)265-0022

October 11, 2021

Page 22 of 24

| FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE<br>(COMPOSITE / INDIVIDUAL SAMPLING) |  | CPSD-AN-00613-DATA 04     |
|---|--|---------------------------|
| General Data  |  | Issue Date:               |
| Laboratory Sample Number  |  | Version No.: 13           |
| Client Name   | 11212650022  | Business Line: Analytical |
| Field Contact Person  | Lay: +855-88 4833 377  |                           |
| Project (Facility Name and Address)   | Top Sports Textile Ltd.  |                           |
| Sampling Location / Description   | Manhattan SEZ (Svay Rieng), National road #01, Sangkat Bavet, Krong Bavet, Svay Rieng Province, Cambodia |                           |
| Sample Identification   | Zero discharge with sampling plan  |                           |
| Sample Type   | Time-weighted composite  |                           |
| Name of Sampler   | Danou  |                           |
| Date and time collected   | 9/21/2021  |                           |
| Discharge mode  | Direct discharge to Topov channel  |                           |
| Factory Type  | Textile  |                           |

\*Note: It would be selected more than one

|                                       |   |   |       |       |       |       |
|---------------------------------------|---|---|-------|-------|-------|-------|
| Field Data                            |   |   |       |       |       |       |
| Arrival Time: 9:00                    | Departure Time: 16:00   |   |       |       |       |       |
| Field Parameters                      | 1   | 2   | 3     | 4     | 5     | 6     |
| Recording time                        | 10:30   | 11:30   | 12:30 | 13:30 | 14:30 | 15:30 |
| pH                                    | 8.0   | 8.0   | 8.0   | 8.1   | 8.1   | 8.0   |
| Temp (°C)                             | 35.4  | 35.1  | 35.4  | 34.5  | 34.4  | 34.4  |
| Color                                 | Brown   | Brown   | Brown | Brown | Brown | Brown |
| Foam                                  | NO  | NO  | NO    | NO    | NO    | NO    |
| Flow rate                             |   |   |       |       |       |       |
| Volume collected, mL                  | ~ 170   |   |       |       |       |       |
| Total volume collected                | ~ 1000mL, Remark: Total volume collected must be greater than total of sample size required |   |       |       |       |       |
| GPS                                   |   |   |       |       |       |       |
| Factory with effluent treatment plant | (YES)   |   |       | NO    |       |       |
| Sample matrix                         |   | Incoming water  |       |       |       |       |
|                                       |   | Wastewater before treatment                           |       |       |       |       |
|                                       | X   | Wastewater after treatment – water at discharge point |       |       |       |       |
|                                       |   | Sludge  |       |       |       |       |

| Tests (MRSL Parameters)   | Total of sample size (mL) | Type of container  | Preservation method                        |
|---|---------------------------|--|--|
| Phthalate   | 1000                      | Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use | Without adding acid<br>Store sample at 6°C |
| Chlorobenzenes, Chlorotoluene & Polynuclear aromatic hydrocarbon (PAHs) |                           |  |  |
| SCCPs   |                           |  |  |
| APs   |                           |  |  |
| APEOs   | 1000                      | Amber Glass, wash with nitric acid, Pre-add 6.5 mL of 2M HCl                                 | Acidify to pH 2 with HCl and store at 6°C  |
| Chlorophenols & Cresols   |                           |  |  |
| Dyes  |                           |  |  |
| Glycols   |                           |  |  |
| Brominated and chlorinated Flame retardants                             | 1000                      | PE, wash with pesticide grade Acetone  | Without adding acid<br>Store sample at 6°C |
| Banned Azodyes  | 1000                      |  |  |
| Organotin Compounds   | 1000                      |  |  |
| Chlorinated solvent / Volatile organic compounds (VOCs)                 | 1000                      |  |  |
| PFCs  | 10                        | PE, wash with nitric acid, Pre-add 6.5 mL of 2M HNO3   | Acidify to pH 2 with HNO3 and store at 6°C |
| Heavy Metals except Cr(VI)  | 1000                      |  |  |
| Cr(VI)  | 1000                      |  |  |
| Observation/ Remark:  |                           |  |  |

Recorded by:

Full name:

Boo Danou

Date: 21.09.2021

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 freezer / fridge that is maintained in 1-4°C

Signatory of Factory Representative:

Full Name:

Heng Channvuthy

Date: 21/09/2021





Technical Report:

(1121)265-0022

October 11, 2021

Page 23 of 24

| FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE<br>(COMPOSITE / INDIVIDUAL SAMPLING) |   | CPSD-AN-00613-DATA 04                                    |  |
|---|---|--|--|
| General Data  |   | Issue Date:  |  |
| Laboratory Sample Number  |   | Version No.: 13  |  |
| Client Name   |   | Business Line: Analytical                                |  |
| Field Contact Person  |   |  |  |
| Project (Facility Name and Address)   |   |  |  |
| Sampling Location / Description   |   |  |  |
| Sample Identification   |   |  |  |
| Sample Type   |   |  |  |
| Name of Sampler   |   |  |  |
| Date and time collected   |   |  |  |
| Discharge mode  |   |  |  |
| Factory Type  |   |  |  |
| *Note: It would be selected more than one                                       |   |  |  |
| Field Data  |   |  |  |
| Arrival Time: 9:00  | Sampling Time: 15:45                                  | Departure Time: 16:00                                    |  |
| Field Parameters  | pH:   | Temp:  |  |
| Control No. of field equipment  |   | Color: Black   |  |
| GPS   |   |  |  |
| Factory with effluent treatment plant   | (YES)   | NO   |  |
| Sample matrix   | Incoming water  |  |  |
|   | Wastewater before treatment                           |  |  |
|   | Wastewater after treatment – water at discharge point |  |  |
|   | X   | Sludge   |  |
| Tests (MRSL Parameters)   | Total of sample size (g)                              | Type of container  |  |
| Phthalate   | 10  | Amber Glass, wash with nitric acid                       |  |
| Chlorobenzenes, Chlorotoluene & Polynuclear aromatic hydrocarbon (PAHs)         |   |  |  |
| SCCPs   |   |  |  |
| APs   |   |  |  |
| APEOs   |   |  |  |
| Chlorophenols & Cresols   |   |  |  |
| Dyes  |   |  |  |
| Glycols   |   |  |  |
| Brominated and chlorinated Flame retardants                                     |   |  |  |
| Banned Azodyes  |   |  |  |
| Organotin Compounds   | 20  | Fill to full container without air gap, and store at 6°C |  |
| Dry Mass (total solids)   | 20  |  |  |
| Chlorinated solvent / Volatile organic compounds (VOCs)                         | 20  |  |  |
| PFCs  | 20  |  |  |
| Heavy Metals except Cr(VI)  | 20  |  |  |
| Cr(VI)  | 20  |  |  |
| Cyanide   | 20  |  |  |
| Observation/ Remark:  |   |  |  |

Recorded by:

Full name:

118  
Pao Damou

Date:

21.09.2021

Comment from factory

Acknowledgement by factory

I hereby confirmed that Bureau Veritas has completed the stated sampling activity on 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 1-4°C

Signatory of Factory Representative:

Full Name:

Heng Chamvutky

Date:

21/09/2021

## APPENDIX D

