



**BUREAU
VERITAS**

TEST REPORT

Technical Report: (6816)224-0147

August 29, 2016

Date Received: August 10, 2016

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Client Name: H & M

Factory Company Name: Newage Apparels Ltd.
Factory Address: Nischintapur, Purbo Narsinghapur, Zirabo, Savar, Dhaka-1341, Bangladesh.
Project No.: /
Client Reference No.: /
Sample Type: Waste water -Grab Sample*
Sample Pick Up Date: August 10, 2016
Test Period: August 10, 2016 To August 29, 2016

Sample Description: Sample(s) received is/are stated to be:
I001) Incoming Water
I002) Wastewater After Treatment (ETP Outlet)

This report shown the test result of the environment samples of above factory which collected on specific date and time. The results of this report shall not be used for any regulatory compliance purposes.

* The grab sampling is agreed with client.

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

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Photo of the Sample/ Sampling Location

I001) Incoming Water



I002) Wastewater After Treatment (ETP Outlet)





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Executive Summary

11 Priority Chemical Groups	I001	I002
Phthalates	o	o
Brominated and Chlorinated Flame Retardants	o	o
Azo Dyes	o	o
Organotin Compounds	o	o
Chlorobenzenes	o	o
Chlorotoluenes	o	o
Chlorinated Solvents	o	o
Chlorophenols	o	o
Short-Chained Chlorinated Paraffins	o	o
Heavy Metals	●	●
APs and APEOs	o	o
Perfluorinated Chemicals	o	o

Note / Key :

- ● – Detected
- o – Not Detected



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Objective

The environment samples were tested for below 11 Priority Chemical Groups according to the Joint Roadmap: Toward Zero Discharge of Hazardous Chemicals.

11 Priority Chemical Groups

- 1) Phthalates
- 2) Brominated and Chlorinated Flame Retardants
- 3) Azo Dyes
- 4) Organotin Compounds
- 5a) Chlorobenzenes
- 5b) Chlorotoluenes
- 6) Chlorinated Solvents
- 7) Chlorophenols
- 8) Short-Chained Chlorinated Paraffins
- 9) Heavy Metals
- 10) APs and APEOs
- 11) Perfluorinated Chemicals

Sampling Plan

Basically, two environment samples were sampled per factory, including 1) Incoming water; and 2) Wastewater after treatment/ Wastewater before treatment. Total number of sample collected will be depended on the actual factory facilities and manufacturing processes.

Method of sampling used is grab sampling (agreed with client.). Grab samples are discrete samples that are taken at a location to provide a 'snapshot' of the water quality characteristics at that time. For the purposes of quantifying water or wastewater constituents, grab samples will show the concentrations at that location and time of sampling. They will not provide any information about the concentrations outside that point in time.

Remark :

- Sampling procedure is with reference to below standards:
 - 1) South Australia EPA Guidelines (June 2007), Regulatory Monitoring and Testing Water and Wastewater Sampling.
 - 2) Australia EPA (Victoria) Guideline (June 2009), Sampling and Analysis of Waters, Wastewaters, Soils and Wastes.
 - 3) ISO 5667-3:2003, Water Quality - Sampling - Part 3: Guidance on the Preservation and Handling of Water Samples.
 - 4) ASTM D3976-92 (Reapproved 2010), Standard Practice for Preparation of Sediment Samples for Chemical Analysis.
- Field data records are attached in Appendix B.



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Test Result

Heavy Metals

Test results of Heavy Metals are as below.

Heavy Metals	I001	I002
As	ND	ND
Cd	ND	ND
Hg	ND	ND
Pb	ND	ND
Sb	ND	ND
Co	ND	ND
Ni	ND	ND
Cu	0.002	0.236
Zn	0.592	0.243
Cr	0.001	ND
Mn	ND	0.005
Cr VI	ND	ND
CN	ND	ND



Others Priority Chemical Groups

	I001	I002
Phthalates	ND	ND
Brominated and Chlorinated Flame Retardants	ND	ND
Azo Dyes	ND	ND
Organotin Compounds	ND	ND
Chlorobenzenes	ND	ND
Chlorotoluenes	ND	ND
Chlorinated Solvents	ND	ND
Chlorophenols	ND	ND
Short-Chain Chlorinated Paraffins	ND	ND
APs and APEOs	ND	ND
Perfluorinated Chemicals	ND	ND

Remark :

- Test method, reporting limit and list of chemical are summarized in tables of Appendix A.
- ND = Not detected (Please refer to reporting limit shown in Appendix A.).
- All results are in ppm as unit.
- ppm = part(s) per million.

Discussion

According to the test results, the priority chemical groups are found. It is suggested that further factory audit is required to identify the source of pollutants in the inventory.

END



APPENDIX A

List of Phthalates :					
No.	Test Method			Reporting Limit	Unit
1	With reference to U. S. EPA 8270D. (For Wastewater)			Each: 0.001	ppm
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Butyl benzyl phthalate (BBP)	85-68-7	13	Dinonyl phthalate (DNP)	84-76-4
2	Dibutyl phthalate (DBP)	84-74-2	14	Di-iso-octyl phthalate (DIOP)	27554-26-3
3	Di-2-ethylhexyl phthalate (DEHP)	117-81-7	15	Dimethoxyethyl phthalate (DMEP)	117-82-8
4	Di-n-octyl phthalate (DNOP)	117-84-0	16	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6
5	Di-iso-nonyl phthalate (DINP)	28553-12-0 & 68515-48-0	17	1,2-Benzenedicarboxylic acid, di-C7-11 branched and linear alkyl esters (DHNUP)	68515-42-4
6	Di-iso-decyl phthalate (DIDP)	26761-40-0 & 68515-49-1	18	Butyl octyl phthalate (BOP)	84-78-6
7	Dimethyl phthalate (DMP)	131-11-3	19	Diundecyl phthalate (DUP)	3648-20-2
8	Diethyl phthalate (DEP)	84-66-2	20	Bis(2-ethoxyethyl) phthalate (BEEP)	605-54-9
9	Di-n-propyl phthalate (DPRP)	131-16-8	21	Di-iso-pentyl phthalates (DiPP)	605-50-5
10	Di-iso-butyl phthalate (DIBP)	84-69-5	22	n-Pentyl iso-pentyl phthalate (PiPP)	776297-69-9
11	Di-cyclohexyl phthalate (DCHP)	84-61-7	23	Di-n-pentyl phthalate (DnPP)	131-18-0
12	Di-n-hexyl phthalate (DnHP)	84-75-3	-	-	-
List of Brominated and Chlorinated Flame Retardants :					
No.	Test Method			Reporting Limit	Unit
1	With reference to U. S. EPA 527 and with reference to U. S. EPA 8321B. (For Wastewater)			Each (PBBs, PBDEs, TCEP & TCPP): 0.00005; Each (Others): 0.0005	ppm
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Polybromobiphenyls (PBBs): Monobromobiphenyl (MonoBB) Dibromobiphenyl (DiBB) Tribromobiphenyl (TriBB) Tetrabromobiphenyl (TetraBB) Pentabromobiphenyl (PentaBB) Hexabromobiphenyl (HexaBB) Heptabromobiphenyl (HeptaBB) Octabromobiphenyl (OctaBB) Nonabromobiphenyl (NonaBB) Decabromobiphenyl (DecaBB)	Various	8	Tetrabromobisphenol A bis(2,3-dibromopropyl ether) (TBBPA-DBPE)	21850-44-2
2	Polybromodiphenyl ethers (PBDEs) Monobromodiphenyl ether (MonoBDE) Dibromodiphenyl ether (DiBDE) Tribromodiphenyl ether (TriBDE) Tetrabromodiphenyl ether (TetraBDE) Pentabromodiphenyl ether (PentaBDE) Hexabromodiphenyl ether (HexaBDE)	Various	9	Tris(1,3-dichloro-isopropyl) phosphate (TDCPP)	13674-87-8



	Heptabromodiphenyl ether (HeptaBDE) Octabromodiphenyl ether (OctaBDE) Nonabromodiphenyl ether (NonaBDE) Decabromodiphenyl ether (DecaBDE)				
3	Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	10	Tri(2-chloroethyl) phosphate (TCEP)	115-96-8
4	Tetrabromobisphenol A (TBBPA)	79-94-7	11	Tri(1-chloro-2-propyl) phosphate (TCPP)	13674-84-5
5	Bis(2,3-dibromopropyl) phosphate	5412-25-9	12	Tris-(aziridinyl)-phosphineoxide (TEPA)	545-55-1
6	Hexabromocyclododecane (HBCDD)	134237-50-6, 134237-51-7, 134237-52-8, 25637-99-4, 3194-55-6	13	Tri-o-cresyl-phosphate	78-30-8
7	2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	-	-	-

List of Aromatic Amines in Azo Colorants :

No.	Test Method	Reporting Limit		Unit	
1	With reference to German Standard DIN 38407-16, with reference to European Standard EN 14362-1 incorporating Corrigendum and with reference to European Standard EN 14362-3. (For Wastewater)	Each (5-Nitro-o-anisidine, N-Ethylaniline & N-Methylaniline): 0.0003 Each (Others): 0.0001		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	4-Aminodiphenyl (Biphenyl-4-ylamine or Xenylamine)	92-67-1	18	o-Toluidine (2-Aminotoluene)	95-53-4
2	Benzidine	92-87-5	19	4-Methyl-m-phenylenediamine (2,4-Toluenediamine)	95-80-7
3	4-Chloro-o-toluidine	95-69-2	20	2,4,5-Trimethylaniline	137-17-7
4	2-Naphthylamine	91-59-8	21	o-Anisidine (2-Methoxyaniline)	90-04-0
5	o-Aminoazotoluene (4-Amino-2',3'-dimethylazobenzene or 4-o-tolyazo-o-toluidine)	97-56-3	22	4-Aminoazobenzene (p-Aminoazobenzene)	60-09-3
6	5-nitro-o-toluidine (2-Amino-4-nitrotoluene)	99-55-8	23	2,4-Xylidine (2,4-dimethylaniline)	95-68-1
7	4-Chloroaniline (p-Chloroaniline)	106-47-8	24	2,6-Xylidine (2,6-dimethylaniline)	87-62-7
8	4-Methoxy-m-phenylenediamine (2,4-Diaminoanisole)	615-05-4	25	Aniline	62-53-3
9	4,4'-Diaminodiphenylmethane (4,4'-Methylenedianiline)	101-77-9	26	1,4-Phenylenediamine	106-50-3
10	3,3'-Dichlorobenzidine (3,3'-Dichlorobiphenyl-4,4'-ylenediamine)	91-94-1	27	2-Chloroaniline	95-51-2
11	3,3'-Dimethoxybenzidine (o-Dianisidine)	119-90-4	28	5-Nitro-o-anisidine	99-59-2
12	3,3'-Dimethylbenzidine (4,4'-Bi-o-tolidine)	119-93-7	29	m-Toluidine	108-44-1
13	4,4'-Methylenedi-o-toluidine (3,3'-Dimethyl-4,4'-diaminodiphenylmethane)	838-88-0	30	N,N-Diethylaniline	91-66-7
14	p-Cresidine (6-Methoxy-m-toluidine)	120-71-8	31	N-Ethylaniline	103-69-5
15	4,4'-Methylene-bis-(2-	101-14-4	32	N-Methylaniline	100-61-8



	chloraniline) (2,2'-Dichloro-4,4'-methylene- dianiline)				
16	4,4'-Oxydianiline	101-80-4	33	p-Toluidine	106-49-0
17	4,4'-Thiodianiline	139-65-1	-	-	-

List of Organotin Compounds :

No.	Test Method	Reporting Limit		Unit	
1	With reference to European Standard EN ISO 17353. (For Wastewater)	Each: 0.00001		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Monobutyltin (MBT)	Various	8	Tripropyltin (TPT)	Various
2	Dibutyltin (DBT)/ Dibutyltin chloride (DBTC)	Various	9	Diphenyltin (DPHT)	Various
3	Tributyltin (TBT)/ Bis(Tributyltin) oxide (TBTO)	Various	10	Triphenyltin (TPhT)	Various
4	Tetrabutyltin (TeBT)	1461-25-2	11	Dimethyltin (DMeT)	Various
5	Monooctyltin (MOT)	Various	12	Trimethyltin (TMeT)	Various
6	Diocetyl tin (DOT)	Various	13	Triethyltin (TET)/ Tetraethyltin (TeET)	597-64-8
7	Triocetyl tin (TOT)	Various	14	Tricyclohexyltin (TCyHT)	Various

List of Chlorobenzenes :

No.	Test Method	Reporting Limit		Unit	
1	With reference to U. S. EPA 8260B and with reference to U. S. EPA 8270D. (For Wastewater)	Each: 0.00002		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Chlorobenzene	108-90-7	6	1,3,5-Trichlorobenzene	108-70-3
2	1,2-Dichlorobenzene	95-50-1	7	1,2,3,4-Tetrachlorobenzene	634-66-2
3	1,3-Dichlorobenzene, 1,4-Dichlorobenzene	541-73-1, 106-46-7	8	1,2,3,5-Tetrachlorobenzene, 1,2,4,5-Tetrachlorobenzene	634-90-2, 95-94-3
4	1,2,3-Trichlorobenzene	87-61-6	9	Pentachlorobenzene	608-93-5
5	1,2,4-Trichlorobenzene	120-82-1	10	Hexachlorobenzene	118-74-1

List of Chlorotoluenes :

No.	Test Method	Reporting Limit		Unit	
1	With reference to U. S. EPA 8260B and with reference to U. S. EPA 8270D. (For Wastewater)	Each: 0.00002		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	2-Chlorotoluene, 3-Chlorotoluene, 4-Chlorotoluene	95-49-8, 108-41-8, 106-43-4	8	alpha,2,4-trichlorotoluene	94-99-5
2	2,3-Dichlorotoluene, 3,4-Dichlorotoluene	32768-54-0, 95-75-0	9	alpha,3,4-trichlorotoluene	102-47-6
3	2,4-Dichlorotoluene, 2,5-Dichlorotoluene, 2,6-Dichlorotoluene	95-73-8, 19398-61-9, 118-69-4	10	alpha,alpha,alpha-2-Tetrachlorotoluene	2136-89-2
4	2,3,6-Trichlorotoluene	2077-46-5	11	alpha,alpha,alpha-4-Tetrachlorotoluene	5216-25-1
5	2,4,5-Trichlorotoluene	6639-30-1	12	alpha,alpha,2-6-Tetrachlorotoluene	81-19-6
6	Benzotrichloride	98-07-7	13	Pentachlorotoluene	877-11-2
7	alpha,2,6-trichlorotoluene	2014-83-7	-	-	-



List of Chlorinated Solvents :

No.	Test Method			Reporting Limit	Unit
1	With reference to U. S. EPA 8260B. (For Wastewater)			Each: 0.001	ppm
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	1,2-Dichloroethane	107-06-2	8	Carbon Tetrachloride	56-23-5
2	1,1-Dichloroethylene	75-35-4	9	Trichloroethylene	79-01-6
3	Methylene Chloride	75-09-2	10	1,1,2-Trichloroethane	79-00-5
4	cis-1,2-Dichloroethylene	156-59-2	11	1,1,1,2-Tetrachloroethane	630-20-6
5	trans-1,2-Dichloroethylene	156-60-5	12	Tetrachloroethylene	127-18-4
6	Chloroform	67-66-3	13	1,1-Dichloroethane	75-34-3
7	1,1,1-Trichloroethane	71-55-6	14	1,1,2,2-Tetrachloroethane	79-34-5

List of Chlorophenols :

No.	Test Method			Reporting Limit	Unit
1	With reference to U. S. EPA 8270D. (For Wastewater)			Each: 0.0005	ppm
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Pentachlorophenol	87-86-5	10	2,3-Dichlorophenol	576-24-9
2	2,3,4,5-Tetrachlorophenol	4901-51-3	11	3,4-Dichlorophenol	95-77-2
3	2,3,4,6-Tetrachlorophenol	58-90-2	12	2,4-Dichlorophenol, 2,5-Dichlorophenol, 2,6-Dichlorophenol, 3,5-Dichlorophenol	120-83-2, 583-78-8, 87-65-0, 591-35-5
4	2,3,5,6-Tetrachlorophenol	935-95-5	13	2-Chlorophenol	95-57-8
5	2,4,6-Trichlorophenol	88-06-2	14	3-Chlorophenol	108-43-0
6	2,3,5-Trichlorophenol	933-78-8	15	4-Chlorophenol	106-48-9
7	2,4,5-Trichlorophenol	95-95-4	16	o-Phenylphenol	90-43-7
8	3,4,5-Trichlorophenol, 2,3,4-Trichlorophenol	609-19-8, 15950-66-0	17	4-Chloro-3-methylphenol	59-50-7
9	2,3,6-Trichlorophenol	933-75-5	-	-	-

List of Short Chain Chlorinated Paraffins :

No.	Test Method			Reporting Limit	Unit
1	With reference to International Standard ISO 12010. (For Wastewater)			0.0004	ppm
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Short Chain Chlorinated Paraffins	85535-84-8	-	-	-



List of Heavy Metals :					
No.	Test Method	Reporting Limit		Unit	
1	With reference to U. S. EPA 3015A and with reference to U. S. EPA 6020A./ With reference to U. S. EPA 7196A./ With reference to APHA 4500 CN- C:2012 & APHA 4500 CN- E:2012 (For Wastewater)	Cd: 0.0001; Hg: 0.00005; CN ⁻ : 0.02 Each (Others): 0.001		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Arsenic (As)	Various	8	Copper (Cu)	Various
2	Cadmium (Cd)		9	Zinc (Zn)	
3	Mercury (Hg)		10	Chromium (Cr)	
4	Lead (Pb)		11	Manganese (Mn)	
5	Antimony (Sb)		12	Chromium VI (Cr VI)	
6	Cobalt (Co)		13	Cyanide (CN ⁻)	
7	Nickel (Ni)		-	-	

List of Alkylphenols and Alkylphenol Ethoxylates :					
No.	Test Method	Reporting Limit		Unit	
1	With reference to ASTM International Standard ASTM D7065. (For Wastewater)	Each 0.001		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Octylphenol (OP)	Various (140-66-9, 27193-28-8, 1806-26-4)	4	Nonylphenol (NP)	Various (25154-52-3, 104-40-5, 90481-04-2, 84852-15-3, 1173019-62-9)
2	Octylphenol monoethoxylates (OP1EO)	51437-89-9	5	Nonylphenol monoethoxylates (NP1EO)	104-35-8
3	Octylphenolethoxylates, (n=2 to n=16)	Various (9002-93-1, 9036-19-5, 68987-90-6)	6	Nonylphenolethoxylates, (n=2 to n=18)	Various (9016-45-9, 26027-38-3, 127087-87-0, 37205-87-1, 68412-54-4)

List of Alkylphenols & Alkylphenol Ethoxylates :					
No.	Test Method	Reporting Limit		Unit	
1	With reference to ASTM International Standard ASTM D7065. (For Wastewater)	Each (OP & NP): 0.001; Each (OPEOs & NPEOs): 0.005		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Octylphenol (OP)	Various	3	Nonylphenol (NP)	Various
2	Octylphenolethoxylates (OPEOs)		4	Nonylphenolethoxylates (NPEOs)	

List of Perfluorinated Chemicals :					
No.	Test Method	Reporting Limit		Unit	
1	In house method and analysis by Liquid Chromatograph Mass Spectrometer (LC-MS). (For Wastewater)	Each (PFOS & PFOA): 0.00001; Each (Others): 0.0005		ppm	
No.	Name of Analytes	CAS-No.	No.	Name of Analytes	CAS-No.
1	Perfluorobutanesulfonic acid (PFBS)	375-73-5, 29420-49-3, 59933-66-3	18	Perfluoro-3,7-dimethyloctanoic acid (PF-3,7-DMOA)	172155-07-6



2	Perfluorohexanesulfonic acid (PFHxS)	355-46-4,3871-99-6	19	7H-Perfluoroheptanoic acid (HPFHpA)	1546-95-8
3	Perfluoro-1-heptanesulfonic acid (PFHpS)	375-92-8, 60270-55-5	20	2H,2H-Perfluorodecanoic acid (H2PFDA)	-
4	Perfluorooctanesulfonic acid (PFOS)	1763-23-1, 56773-72-3, 307-35-7	21	2H,2H,3H,3H-Perfluoroundecanoic acid (PFUnA)	34598-33-9
5	Perfluorodecane sulfonic acid (PFDS)	335-77-3, 126105-34-8	22	1H,1H,2H,2H-Perfluorooctylacrylate (FTA 6-2)	17527-29-6
6	Perfluorooctane Sulfonamide (PFOSA)	754-91-6	23	1H,1H,2H,2H-Perfluorodecylacrylate (FTA 8-2)	27905-45-9
7	Perfluorobutyric Acid (PFBA)	375-22-4	24	1H,1H,2H,2H-Perfluorododecylacrylate (FTA 10-2)	17741-60-5
8	Perfluoropentanoic Acid (PFPA)	2706-90-3	25	2-Perfluorobutylethanol (FTOH 4-2)	2043-47-2
9	Perfluoro-n-hexanoic acid (PFHxA)	307-24-4	26	2-Perfluorohexylethanol (FTOH 6-2)	647-42-7
10	Perfluoro-n-heptanoic acid (PFHpA)	375-85-9	27	2-Perfluorooctylethanol (FTOH 8-2)	678-39-7
11	Perfluoro-n-octanoic acid (PFOA)	335-67-1	28	2-Perfluorodecylethanol (FTOH 10-2)	865-86-1
12	Perfluoro-n-nonanoic acid (PFNA)	375-95-1	29	2-(N-methylperfluoro-1-octanesulfonamido)-ethanol (N-MeFOSE)	24448-09-7
13	Perfluoro-n-decanoic acid (PFDA)	335-76-2	30	2-(N-Ethylperfluoro-1-octanesulfonamido)-ethanol (N-EtFOSE)	1691-99-2
14	Perfluoroundecanoic Acid (PFUnA)	2058-94-8, 4234-23-5	31	N-Methylperfluoro-1-octanesulfonamide (N-MeFOSA)	31506-32-8
15	Perfluorododecanoic Acid (PFDoA)	307-55-1	32	N-Ethylperfluoro-1-octanesulfonamide (N-EtFOSA)	4151-50-2
16	Perfluorotridecanoic Acid (PFTrA)	72629-94-8	33	1H,1H,2H,2H-Perfluorooctanesulphonic acid (H4PFOS 6-2)	27619-97-2
17	Perfluorotetradecanoic Acid (PFTeA)	376-06-7	-	-	-

Note / Key :

ppm = part(s) per million

U. S. EPA = United States Environmental Protection Agency

APHA = American Public Health Association

Comment : The report [(6816)224-0147] is sub-contracted to BVCPS (Shanghai, China) For Perfluorinated Chemicals & Brominated & Chlorinated Flame Retardants Test.



APPENDIX B



**FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE
FOR 11 PRIORITY CHEMICALS**

General Data

Laboratory Sample Number (6816)224-0147

Client Name H & M

Field Contact Person A.B.M Faqrul Alam Rubel Phone No: 01730-793301

Project (Facility Name and Address) Newage Apparels Ltd, Nischintapur, Purbo Narsinghapur, Zirabo, Savar, Dhaka-1341, Bangladesh.

Sampling Location / Description Incoming water

Sample Identification Zero discharge with sampling plan

Sample Type Grab Samples

Name of Sampler Md. Asad Hosain

Discharge mode Direct discharge to environment (Specify destination: Indirect discharge to sewage treatment plant.)

Date and time collected 10/8/2016 03.30 pm

Factory Type Dyeing/Printing/Washing/Finishing/Other (please specify) Printing

*Note: It would be selected more than one

Field Data for wastewater

Field Parameters	pH : 7.1	Temperature : 27.5 °C	Color : Colorless
Control No. of field equipment			

Analysis Required and Preservation Method

Factory with effluent treatment plant	Yes		
Sample matrix	Incoming Water		
Sampler container number			
Recording time			
Volume collected, mL			
Total volume collected	Remark: Total volume collected must be greater than total of sample size required		
Tests	Test required	Total of sample size	Preservation method
1. Phthalate		500 mL	Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use Without adding acid Store sample at 4°C
2. Brominated and chlorinated Flame retardant		500 mL	
3. Banned Azodyes		500 mL	
4. Organotin Compounds		500 mL	
5. SCCPs		500 mL	
6. Navy Blue		10 mL	
7. Free primary aromatic amines		500 mL	
8. Chlorobenzenes		500 mL	Amber Glass, wash with nitric acid; Pre-add 6.5 mL of 2M HCl Acidify to ~pH 2 with HCl and store sample at 4°C
9. Chlorophenols		500 mL	
10. APEOs/APs		500 mL	
11. Chlorinated Solvents		500 mL	Fill to full bottle without air; acidify to ~pH 2 with HCl and store sample at 4°C
12. Heavy Metals except CrVI		500 mL	Amber Glass, wash with nitric acid, pre-add 6.5mL of 2M HNO3 Acidify to pH 2 with HNO ₃ and store at 4°C
13. CrVI		500 mL	Amber Glass, wash with pesticide grade acetone Fill to full bottle without air nor adding acid and store sample at 4°C
14. PFCs		500 mL	PE, wash with pesticide grade Acetone; Without adding acid Store sample at 4°C
15. Cyanide		500 mL	Amber Glass, wash with pesticide grade acetone Adjust pH 12 with 50% NaOH and store at 4°C



**BUREAU
VERITAS**

Technical Report:

(6816)224-0147

August 29, 2016

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**FIELD DATA RECORD ON ZERO DISCHARGE SAMPLE
FOR 11 PRIORITY CHEMICALS**

General Data

Laboratory Sample Number (6816)224-0147
 Client Name H & M
 Field Contact Person A.B.M Faqur Alam Rubel Phone No: 01730-793301
 Project (Facility Name and Address) Newage Apparels Ltd, Nischintapur, Purbo Narsinghapur, Zirabo, Savar, Dhaka-1341, Bangladesh.
 Sampling Location / Description Wastewater after treatment
 Sample Identification Zero discharge with sampling plan
 Sample Type Grab Samples
 Name of Sampler Md. Asad Hosain
 Discharge mode Direct discharge to environment (Specify destination: Indirect discharge to sewage treatment plant.)
 Date and time collected 10/8/2016 02.20 pm
 Factory Type Dyeing/Printing/Washing/Finishing/Other (please specify) Printing
 *Note: It would be selected more than one

Field Data for wastewater

Field Parameters	pH : 8.2	Temperature : 28.4 °C	Color : Colorless
Control No. of field equipment			

Analysis Required and Preservation Method

Factory with effluent treatment plant	Yes		
Sample matrix	Wastewater after treatment – water at discharge point		
Sampler container number			
Recording time			
Volume collected, mL			
Total volume collected	Remark: Total volume collected must be greater than total of sample size required		
Tests	Test required	Total of sample size	Preservation method
1. Phthalate		500 mL	Amber Glass, wash with nitric acid, rinse thoroughly with distilled water and dry before use Without adding acid Store sample at 4°C
2. Brominated and chlorinated Flame retardant		500 mL	
3. Banned Azodyes		500 mL	
4. Organotin Compounds		500 mL	
5. SCCPs		500 mL	
6. Navy Blue		10 mL	
7. Free primary aromatic amines		500 mL	
8. Chlorobenzenes		500 mL	Amber Glass, wash with nitric acid; Pre-add 6.5 mL of 2M HCl Acidify to ~pH 2 with HCl and store sample at 4°C
9. Chlorophenols		500 mL	
10. APEOs/APs		500 mL	
11. Chlorinated Solvents		500 mL	Fill to full bottle without air; acidify to ~pH 2 with HCl and store sample at 4°C
12. Heavy Metals except CrVI		500 mL	Amber Glass, wash with nitric acid, pre-add 6.5mL of 2M HNO3 Acidify to pH 2 with HNO ₃ and store at 4°C
13. CrVI		500 mL	Amber Glass, wash with pesticide grade acetone Fill to full bottle without air nor adding acid and store sample at 4°C
14. PFCs		500 mL	PE, wash with pesticide grade Acetone; Without adding acid Store sample at 4°C
15. Cyanide		500 mL	Amber Glass, wash with pesticide grade acetone Adjust pH 12 with 50% NaOH and store at 4°C

END