TEST REPORT

Report No.	:	WTF24F08186947C
Applicant	:	Mid Ocean Brands B.V.
Address	:	7/F., Kings Tower, 111 King Lam Street, Cheung Sha Wan, Kowloon, Hong Kong
Manufacturer	:	117074
Sample Name	:	Birch tree notebook, Pine tree notebook, A5 notebook with hard paper cover
Sample Model	:	MO2251, MO6225, MO6689
Test Requested	:	Refer to next page (s)
Test Method	:	Refer to next page (s)
Test Conclusion	:	**Pass** (please refer to next pages for details)
Date of Receipt sample	:	2024-08-08
Testing period	:	2024-08-08 to 2024-08-14
Date of Issue	:	2024-08-15
Test Result	:	Refer to next page (s)

Prepared By:
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Signed for and on behalf of
Waltek Testing Group (Foshan) Co., Ltd.

Swing.Liang

WTF24F08186947C

Summary

Item No.	Test Requested	Test Conclusion
1	Determination of Lead content in the submitted sample in accordance with REACH regulation Annex XVII Entries 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628	**Pass**
2	To determine the Pentachlorophenol and its salts and esters (PCP) content in the submitted sample with reference to Regulation (EU)2019/1021 and its amendment (EU)2020/784&(EU)2020/1203&(EU)2020/1204&(EU)2021/115& (EU)2021/277&(EU)2022/2291&(EU)2023/1608.	**Pass**
3	Determine the specified AZO Colorants contents in the submitted sample in according to the Entries 43 in Annex XVII of the REACH Regulation (EC) No.1907/2006 and the Amendment Regulation (EC) No.552/ 2009 & No.126/ 2013 (previously restricted under Directive 2002/61/EC).	**Pass**
4	As requested by the applicant, to test Colour Fastness to Rubbing in the submitted sample.	**Pass**
5	As requested by the applicant, determination of the released formaldehyde content in submitted sample	**Pass**

Sample photo:

MO2251

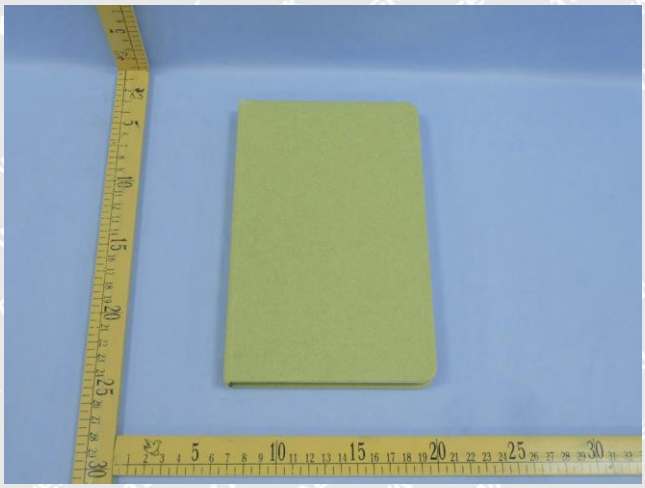
MO2251

MO6225

MO6689

MO6689

MO6689



MO6689

MO6689

Test Results:

1) Lead (Pb)

Test Method: With reference to IEC 62321-5:2013, the analysis was performed by ICP-OES.

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.1+No.7	No.2	
Lead(Pb)	2	ND*	ND	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.3+No.4+No.6	No.5	
Lead(Pb)	2	ND*	ND	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.8+No.10+No.12	No.9	
Lead(Pb)	2	ND*	ND	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.11+No.15	No.13+No.16+No.17	
Lead(Pb)	2	ND*	ND*	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.14	No.18	
Lead(Pb)	2	ND	ND	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.19+No.20+No.22	No.21	
Lead(Pb)	2	ND*	ND	500
Conclusion	--	**Pass**	**Pass**	--

Test Item	LOQ (mg/kg)	Results (mg/kg)		Limit (mg/kg)
		No.23+No.25+No.26	No.24	
Lead(Pb)	2	ND*	ND	500
Conclusion	**--**	**Pass**	**Pass**	**--**

Test Item	LOQ (mg/kg)	Results (mg/kg)	Limit (mg/kg)
		No.27	
Lead(Pb)	2	ND	500
Conclusion	**--**	**Pass**	**--**

Note:

(1) mg/kg = milligram per kilogram

(2) ND = Not Detected (lower than LOQ)

(3) LOQ = Limit of quantitation

(4) Limit of Lead was quoted from REACH regulation Annex XVII Item 63 (EC) No. 1907/2006 and the amendment No. 836/2012 and (EU) 2015/628.

(5) "*" = Results are calculated by the minimum weight of mixed components.

2) Pentachlorophenol (PCP)

Test method: With reference to In-house Method, analysis was performed by GC-MS.

Test Items	Result (mg/kg)	Limit (mg/kg)	LOQ (mg/kg)
	No.1+No.7		
Pentachlorophenol and its salts and esters (PCP)	ND*	≤ 5mg/kg in substances, mixtures or articles	5
Conclusion	**Pass**	--	--

Note:

(1) ND = Not Detected or lower than limit of quantitation

(2) mg/kg= milligram per kilogram= ppm

(3) LOQ = Limit of quantitation

(4) "*" = Results are calculated by the minimum weight of mixed components.

3) AZO

Test Method: With reference to BS EN ISO 14362-1：2017 and BS EN ISO 14362-3：2017, analysis was performed by Gas Chromatographic Mass Spectrometry (GC-MS)

No.	Amines Substances	CAS No.	Limit (mg/kg)	Result (mg/kg)
				No.11
1	4-Aminobiphenyl	92-67-1	30	ND
2	Benzidine	92-87-5	30	ND
3	4-chloro-o-Toluidine	95-69-2	30	ND
4	2-Naphthylamine	91-59-8	30	ND
5	o-Aminoazotoluene	97-56-3	30	ND
6	2-Amino-4-nitrotoluene	99-55-8	30	ND
7	p-Chloroaniline	106-47-8	30	ND
8	2,4-diaminoanisol	615-05-4	30	ND
9	4,4’-Diaminodiphenylmethane	101-77-9	30	ND
10	3,3’-Dichlorobenzidine	91-94-1	30	ND
11	3,3’-Dimethoxybenzidine	119-90-4	30	ND
12	3,3’-Dimethylbenzidine	119-93-7	30	ND
13	3,3’-Dimethyl-4,4’-diaminodiphenylmethane	838-88-0	30	ND
14	p-cresinin	120-71-8	30	ND
15	4,4’-Methylen-bis-(2-chloroaniline)	101-14-4	30	ND
16	4,4’-Oxydianiline	101-80-4	30	ND
17	4,4’-Thiodianiline	139-65-1	30	ND
18	o-Toluidine	95-53-4	30	ND
19	2,4-Toluylendiamine	95-80-7	30	ND
20	2,4,5 – Trimethylaniline	137-17-7	30	ND
21	o-anisidine	90-04-0	30	ND
22	4-aminoazobenzene	60-09-3	30	ND
23	2,4-Xylidin	95-68-1	30	ND
24	2,6-Xylidin	87-62-7	30	ND
Conclusion		--	--	**Pass**

Note:

- ND = Not Detected or lower than limit of quantitation
- mg/kg=Milligram per kilogram
- Limit of quantitation (mg/kg): Each 5mg/kg
- The CAS-numbers 97-56-3 and 99-55-8 are further reduced to CAS-numbers 95-53-4 and 95-80-7.
- AZO colorants that are able to form 4-aminoazobenzene, generate under the condition of this method aniline and 1,4-phenylenediamine. The presence of these colorants cannot be reliably ascertained without additional information, e.g. the chemical structure of the colorant used.

4) Colour Fastness to Rubbing

Colour Fastness to Rubbing			
(ISO 105-X12: 2016; Size of rubbing finger: 16mm diameter.)			
		No.11	**Client's Limit**
Length	Dry staining	4-5	2-3
	Wet staining	2-3	2-3
Width	Dry staining	--	2-3
	Wet staining	--	2-3
Conclusion		**Pass**	--

Note:
(1) Grey Scale Rating is based on the 5-step scale of 1 to 5, where 1 is bad and 5 is good.

5) Formaldehyde
Test Method: With reference to EN717-3:1996, analysis was performed by UV-VIS

Test Item	**Unit**	**Result**	**LOQ**	**Client's Limit**
		No.1+No.7		
Formaldehyde (CH_2O)	mg/kg	20*	10	80
Conclusion	**--**	**Pass**	**--**	**--**

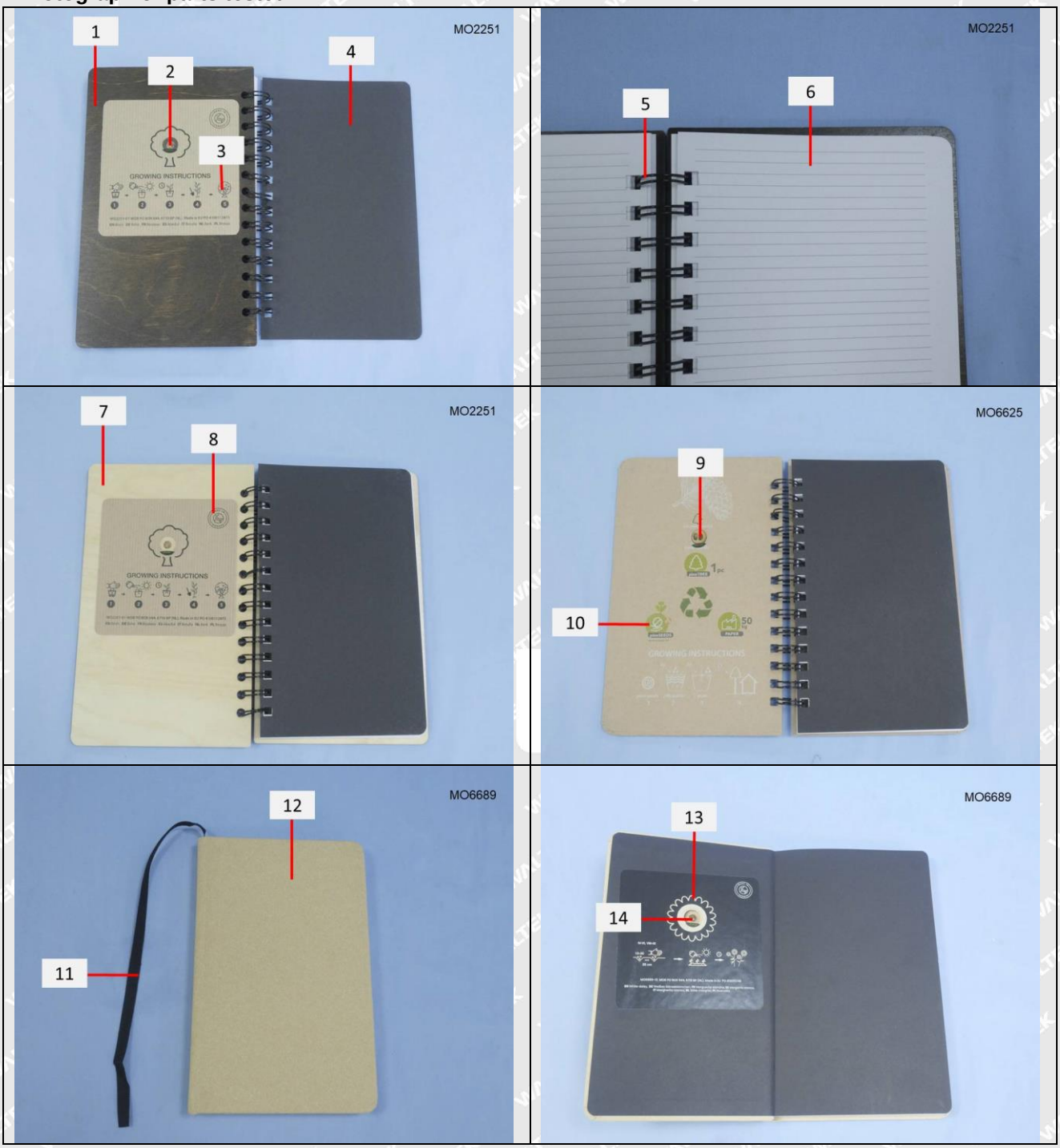
Note:
- ND = Not Detected or lower than limit of quantitation
- mg/kg =milligram per kilogram=ppm
- LOQ = Limit of quantitation
- "*" = Results are calculated by the minimum weight of mixed components.

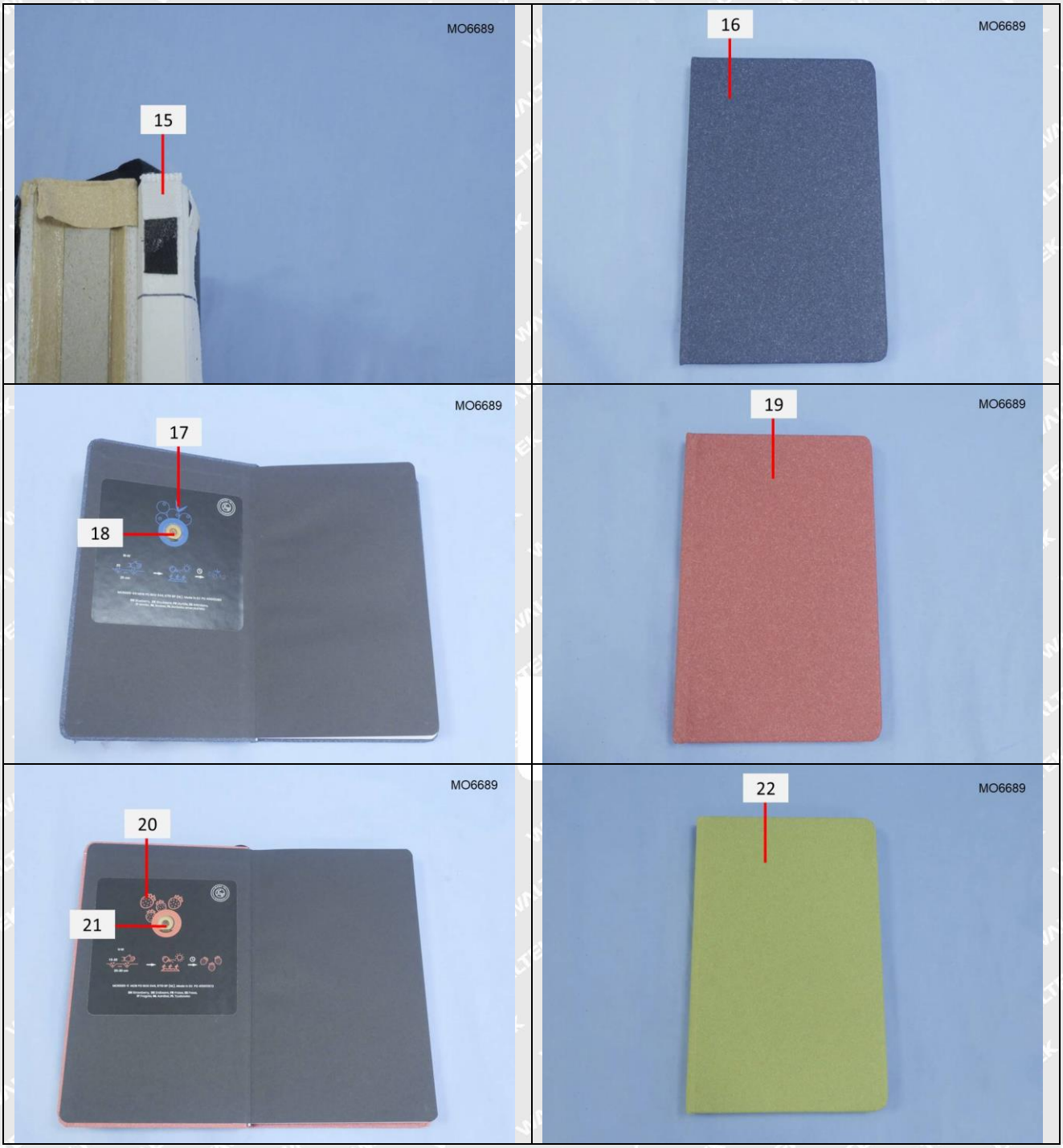
Description for Specimen:

Specimen No.	**Specimen Description**
1	Dark grey wooden
2	Brown seed
3	Light brown paper with multicolor printing
4	Black paper
5	Silvery metal ring with black surface
6	White paper with black printing
7	Brown wooden
8	Brown paper with multicolor printing
9	Brown seed

Specimen No.	Specimen Description
10	Brown paper with multicolor printing
11	Black ribbon
12	Brown paper
13	Black paper with white brown printing
14	Yellow seed
15	White ribbon
16	Blue paper
17	Black paper with white blue printing
18	Yellow seed
19	Red paper
20	Black paper with white red printing
21	Brown seed
22	Green paper
23	Black paper with white green printing
24	Yellow seed
25	Dark green paper
26	Black paper with white and dark green printing
27	Brown seed

Photograph of parts tested:

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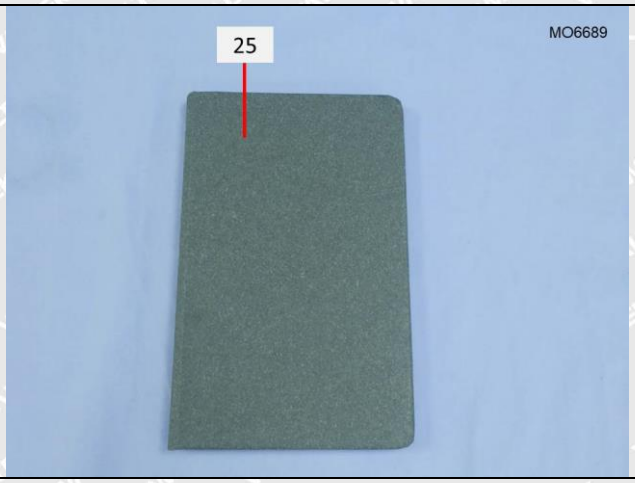
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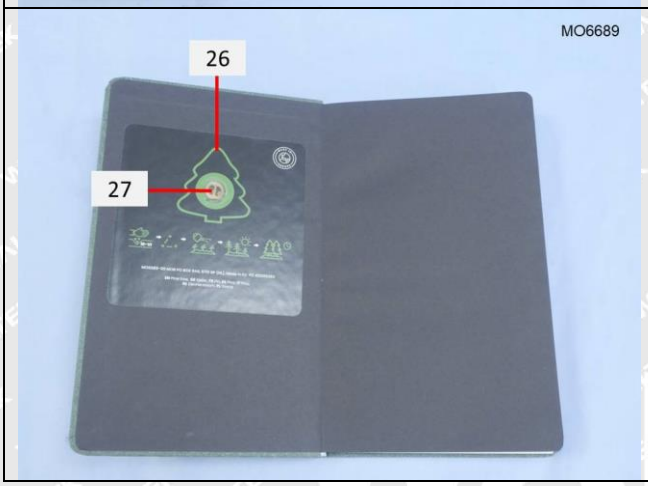
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====== End of Report ======