



TEST REPORT

December 13, 2011
Page 1 of 2
IPS FI 02956-11

Report to: Larry Stewart
Stewart Forensic Consultants
793 A East Foothill Blvd.
San Luis Obispo, CA 93405

Sample identification: 2 Vials

Date received: November 1, 2011

Test requested: Fiber Identification

Purchase Order: Credit Card

Report of Fiber Analysis

Enclosed are the results of the analysis performed on the sample we received with your Test Services Request Form.

If you have any questions concerning this work, please do not hesitate to contact us.

Authorized By: Gregory J. Fox Signed Walter J. Rantanen
Gregory J. Fox
Lab Manager
Walter J. Rantanen
Technical Leader, Fiber Science
(920) 749-3040 Ext. 127

WJR/jml

Fiber Identification

The paper samples did not have any detectable mechanical (high lignin) pulp fibers which would be effected by photodegradation from UV light. There is a strong UV fluorescence in both samples, which indicates optical brightening agents. In the small punch outs, significant fluorescence differences were not detected. It could not be determined if these samples were effected by contact with UV light, but long exposure to UV light has been known to lower the whiteness of paper. A noticeable particulate material was observed on one side of the punch outs. This particulate may also affect the UV fluorescence of paper. The main inorganic substance in these particulates was found to be iron. The EDS spectra are enclosed. The nature of this material implies contact on one surface of the papers.

Spot tests show the same consistent reactions for starch and pH levels between the two samples. The fiber content of the two vials is consistent with coming from the same mill and production run.

Table 1. Fiber Identification of Vial 7

Hardwood Bleached Kraft – Principally Redgum and Oak with some Blackgum, Yellow-Poplar, Cherry, Southern Magnolia
Softwood Bleached Kraft – Hard Pine (Except Red & Pine)

Table 2. Fiber Identification of Vial 9

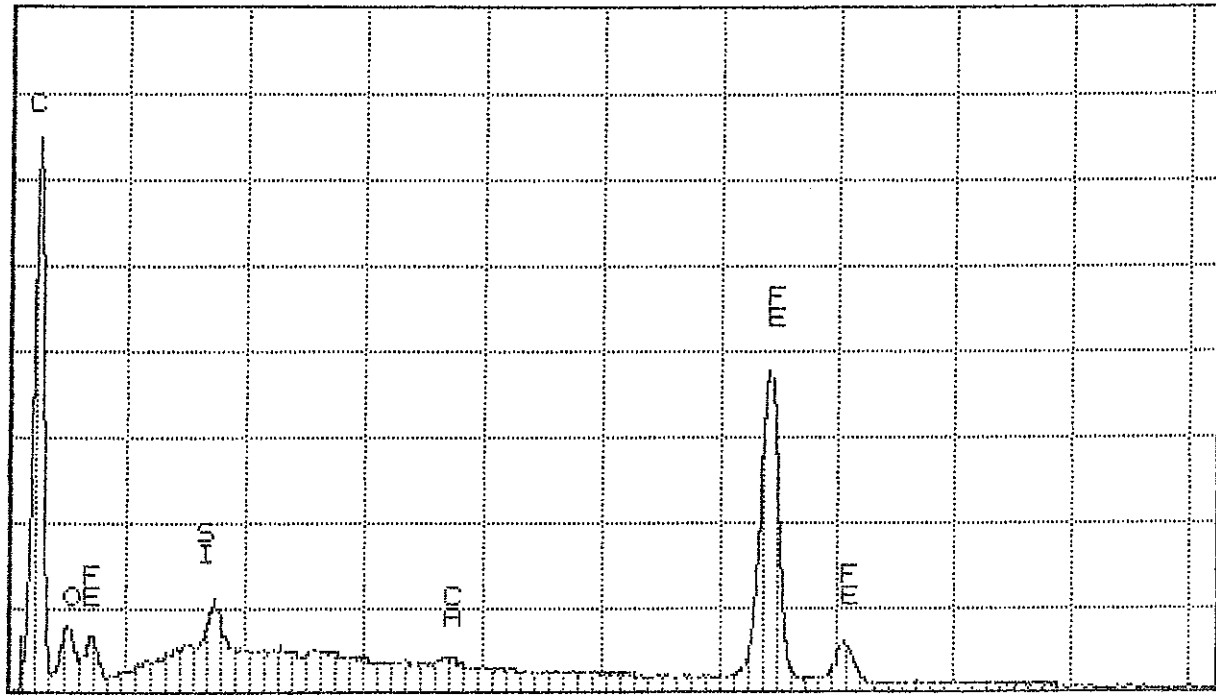
Hardwood Bleached Kraft – Principally Oak and Redgum with some Yellow-Poplar, Blackgum, Cherry
Softwood Bleached Kraft – Hard Pine (Except Red & Pine)

Method: TAPPI Test Method T 401 om-03 “Fiber Analysis of Paper and Paperboard.”

Analyzed by WJR
Quality review by JML, KTM
Date(s) of testing November 8, 2011

Notes: These results relate only to the item(s) tested. This test report shall not be reproduced, except in full, without written consent of IPS. See the TAPPI test method(s) cited for estimates of measurement uncertainty.

Cursor: 0.000keV = 0



0.000

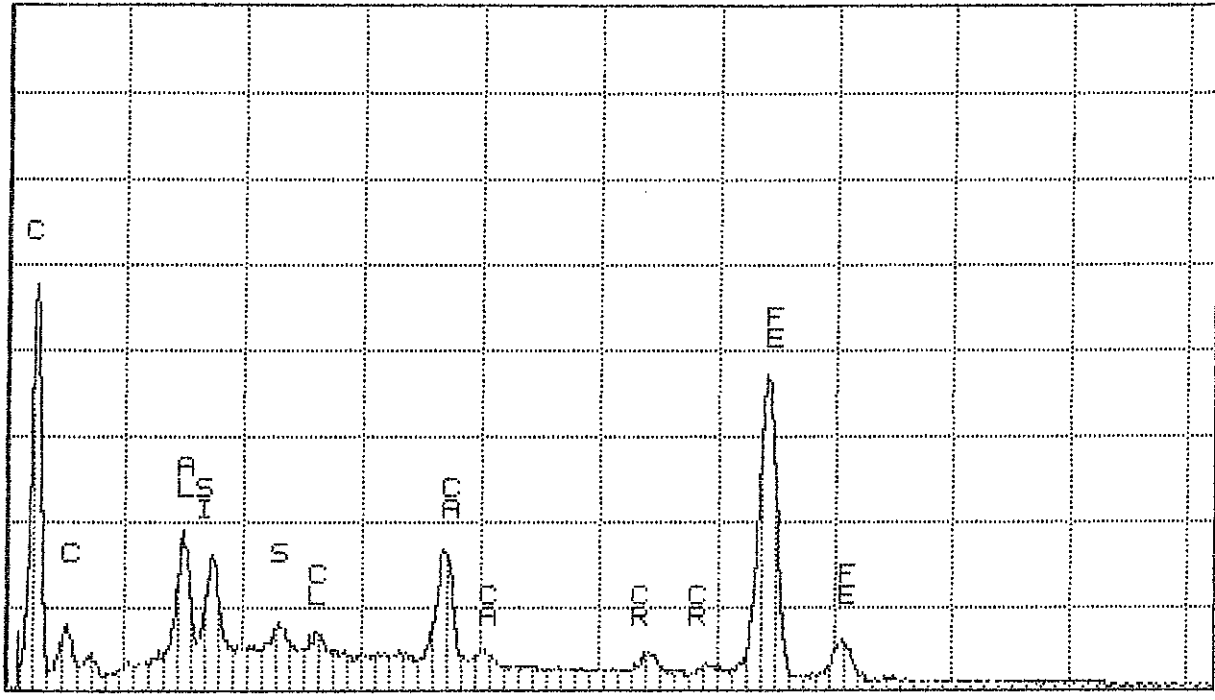
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10.240

100

FI02955-11 BROWN PARTICLE ON PAPER SURFACE-1

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0.000

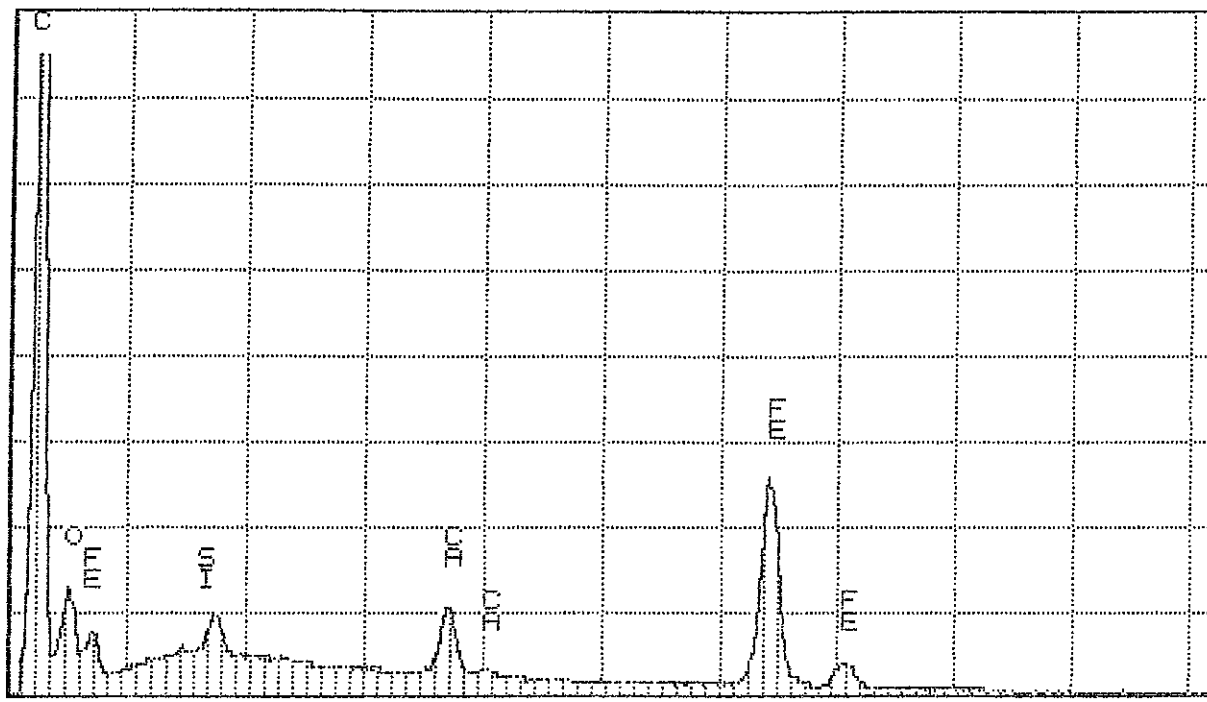
VFS = 2048

10.240

100

FI02956-11 BROWN PARTICLE ON PAPER SURFACE-2

Cursor: 0.000keV = 0



0.000

VFS = 4096

10.240

100

FI02956-11 BROWN PARTICLE ON PAPER SURFACE-3