

**Using the Bruker XRF to Distinguish the Six Different
Printings of the U.S. Newspaper Stamp Designs
N4 and N5**

By
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The Black Newspaper Stamps



CBNC
PR 9-15
Black

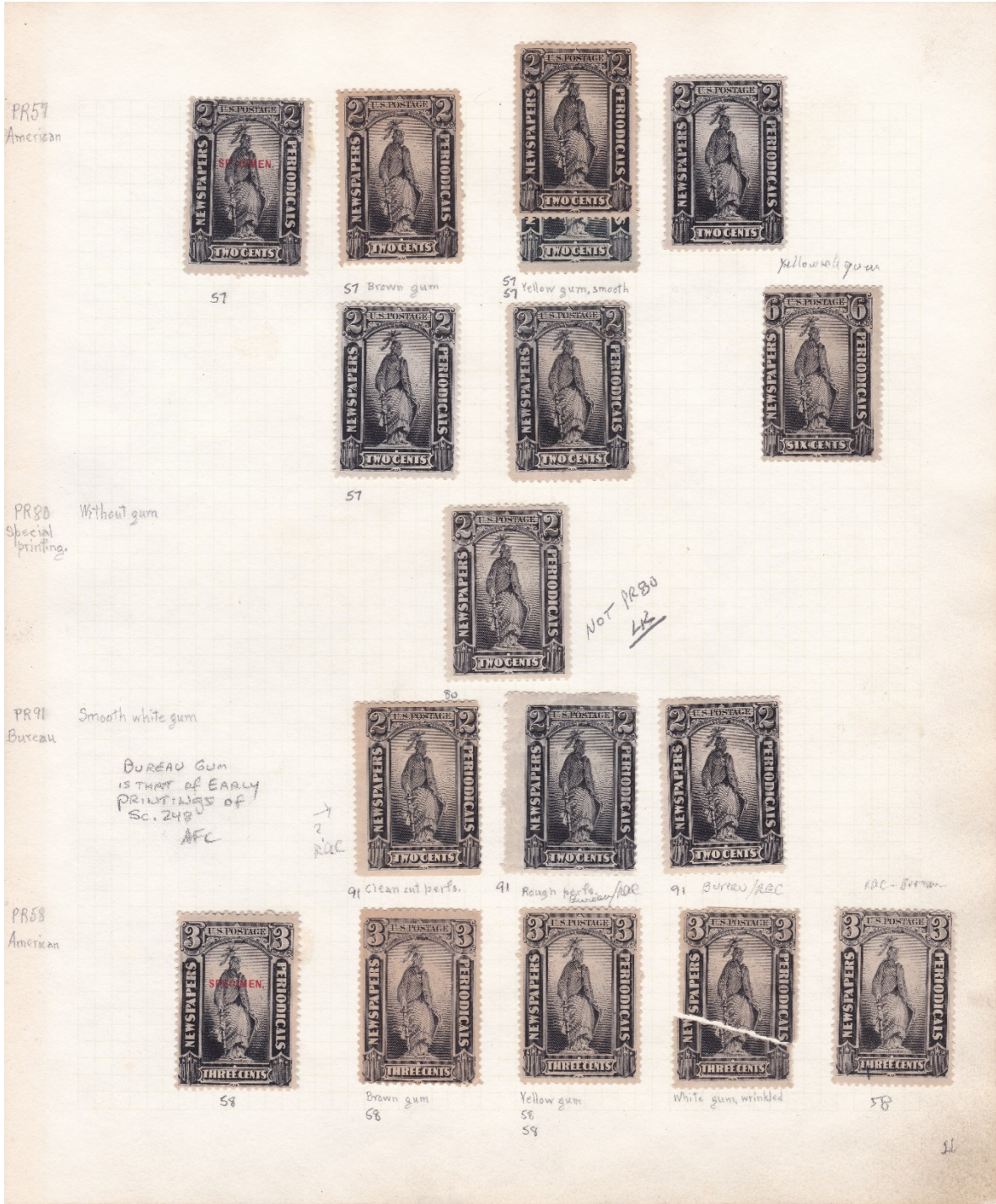


ABNC
PR 57-62
Black

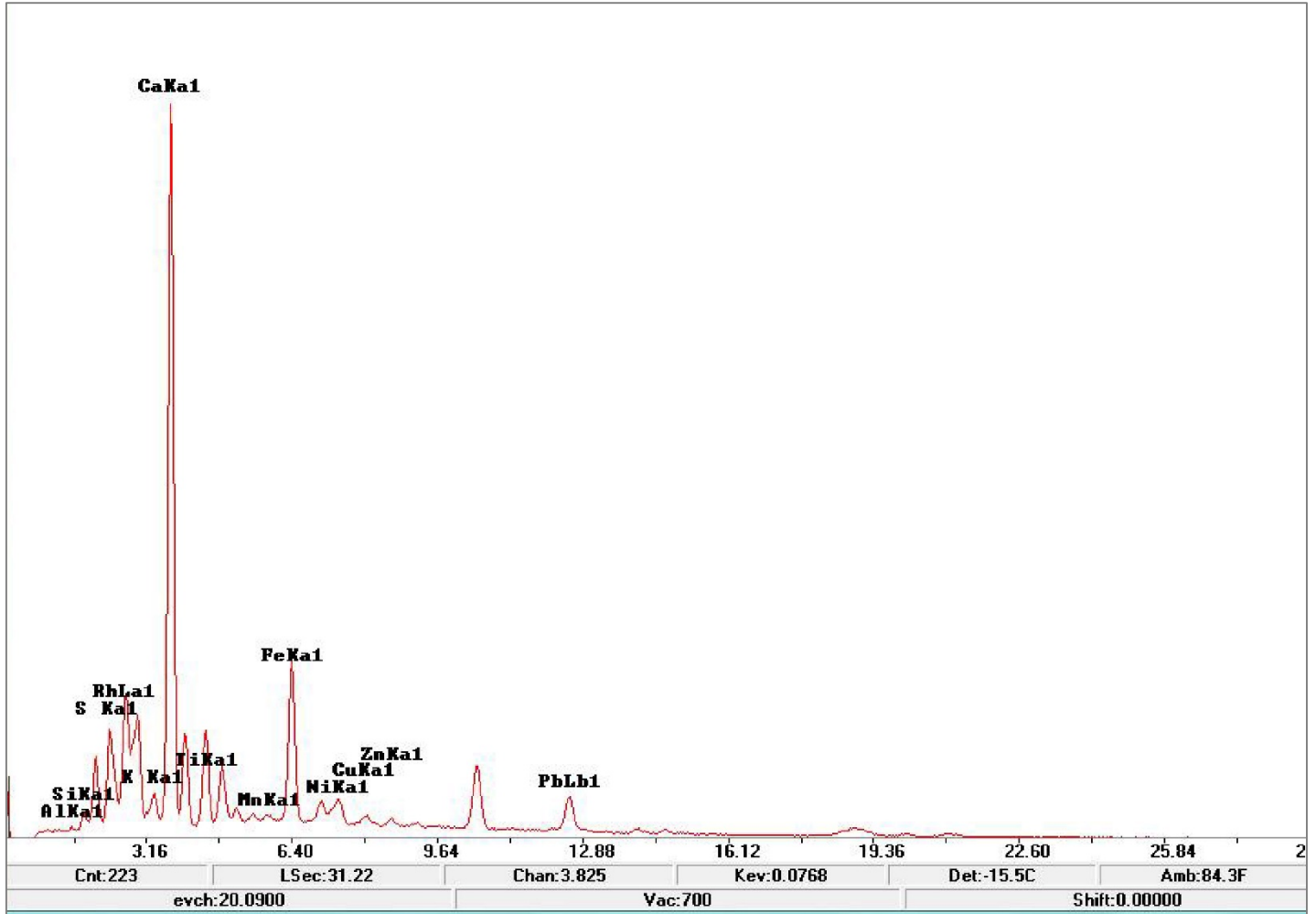


BEP
PR 90-94
Intense Black

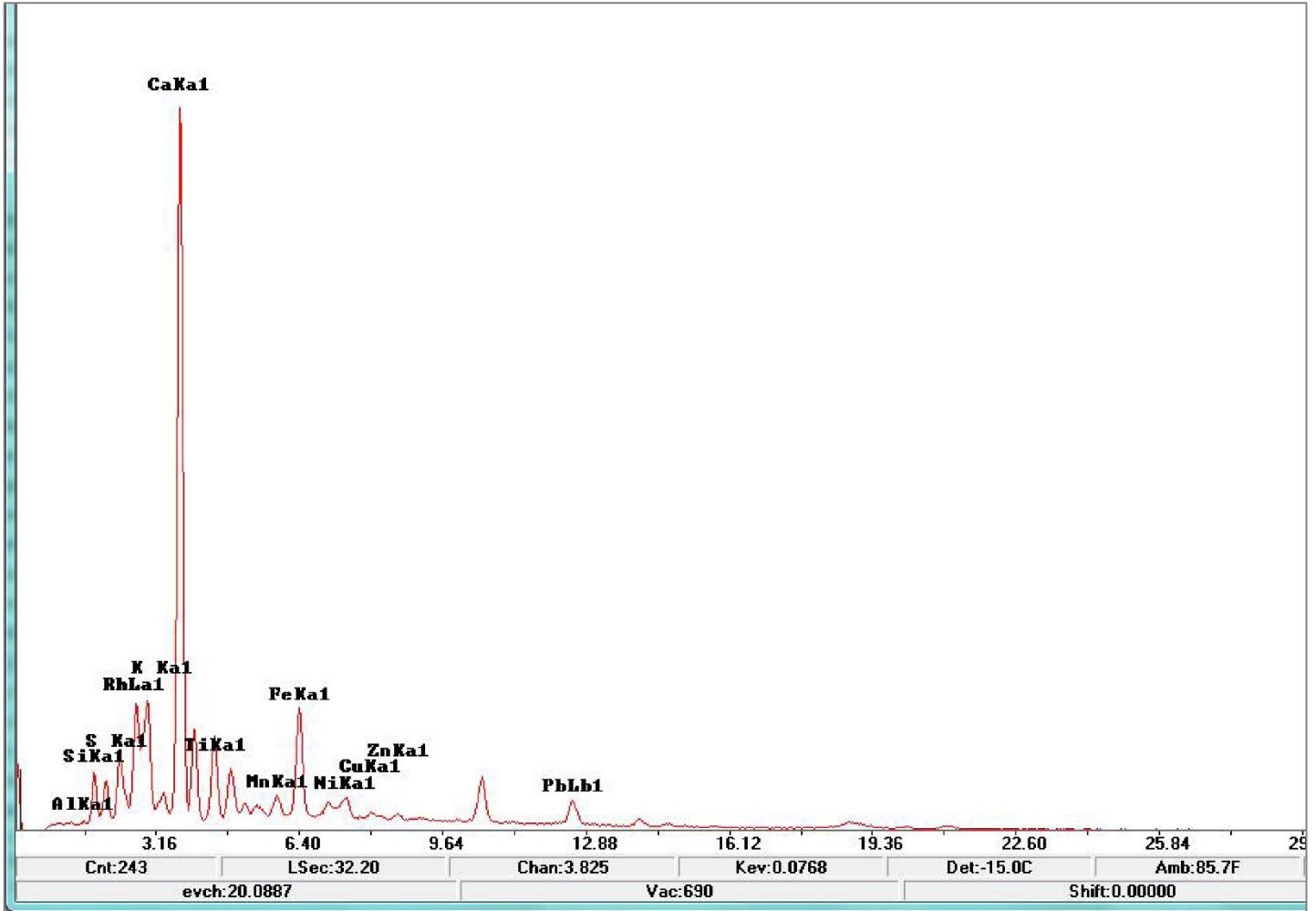
PF Reference Collection Page for American Bank Note Company (ABNC) Printing PR 57-62 and Bureau of Engraving and Printing (BEP) PR 90-94



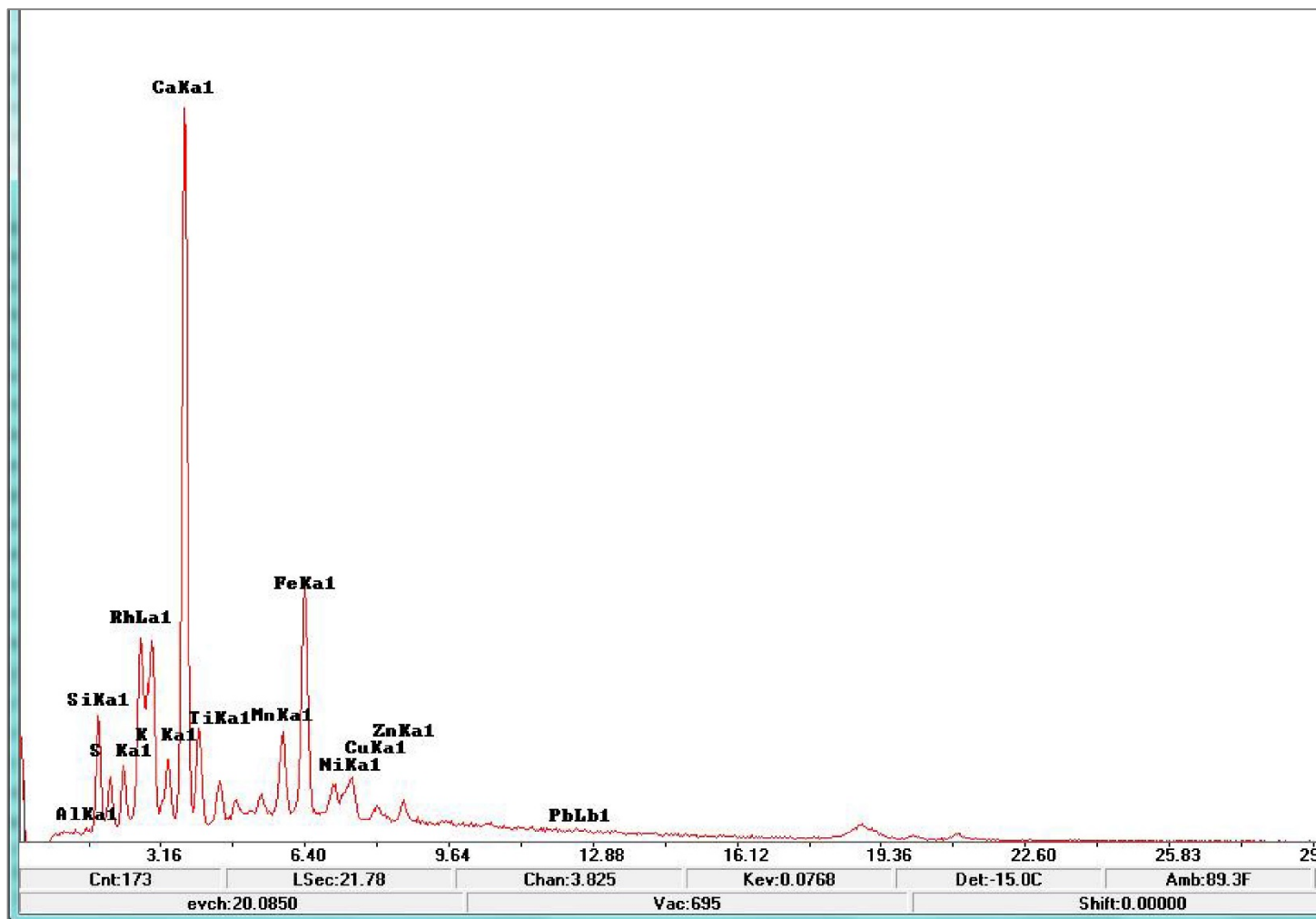
XRF Results for CBNC PR 9-15 Black



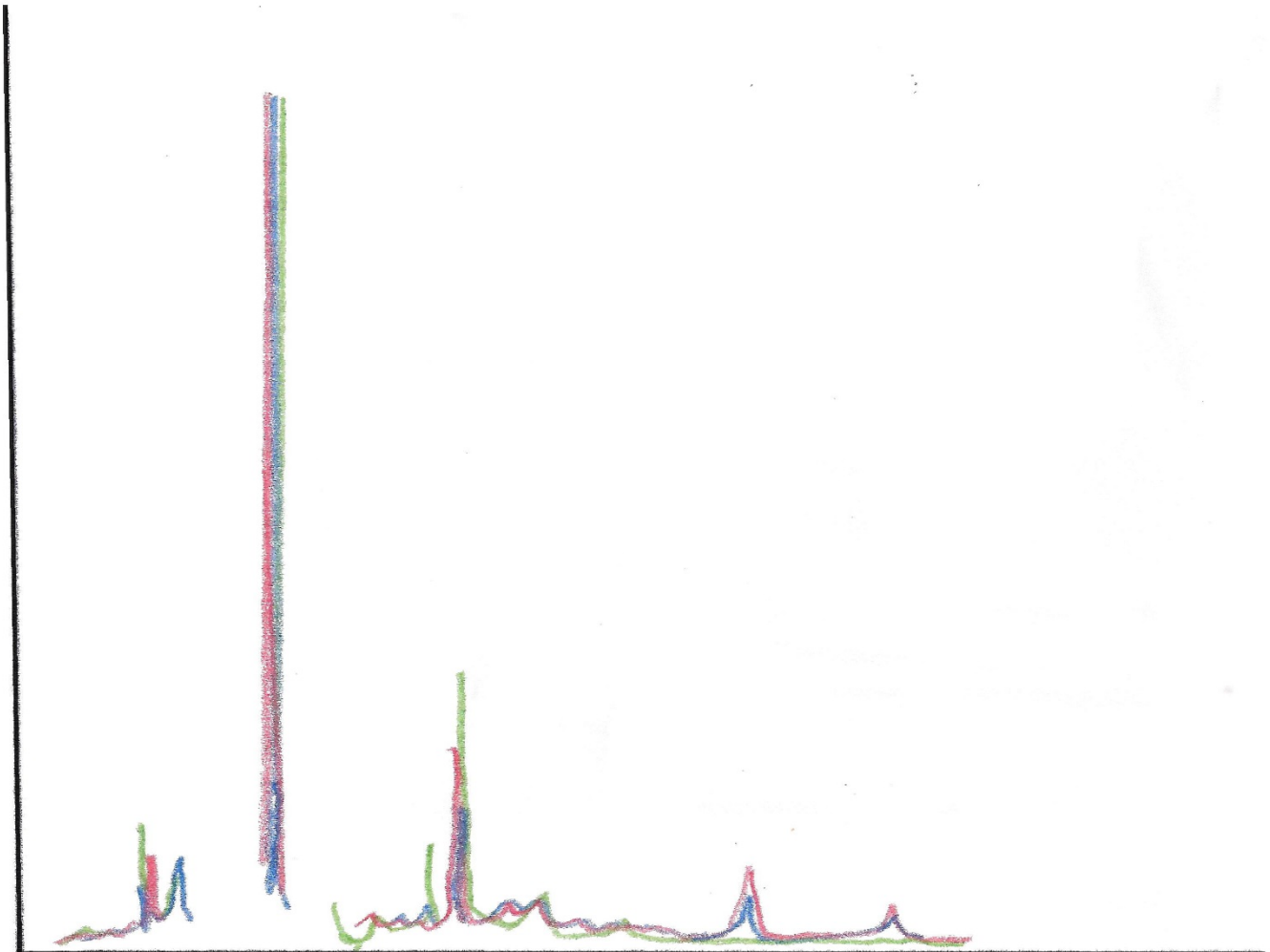
XRF Results for ABNC PR 57-62 Black



XRF Results for BEP PR 90-94 Intense Black



Overlay of CBNC, ABNC and BEP XRF Results for the Black Newspaper Stamps



 CBNC

 ABNC

 BEP

**Table of the XRF Results for the CBNC, ABNC, and BEP
Regular Issue Black Stamps**

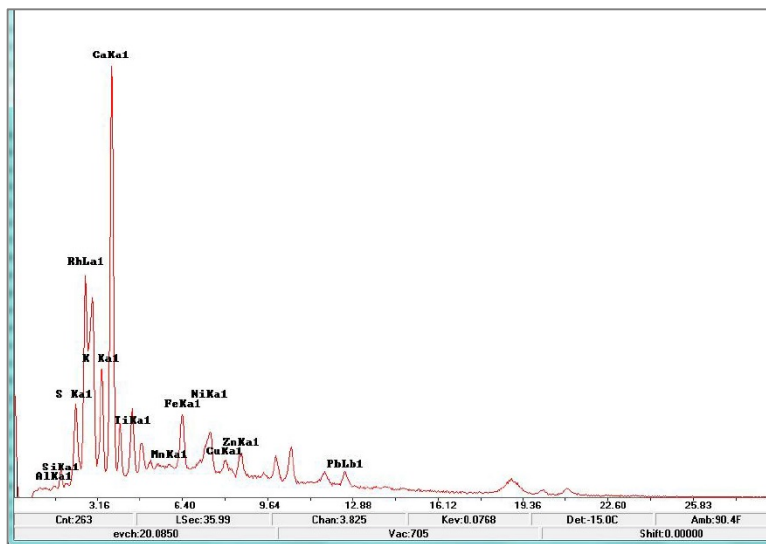
	<u>Continental</u> <u>PR 9-15</u>	<u>American</u> <u>PR 57-62</u>	<u>Bureau</u> <u>PR 90-94</u>
Fe	.18 to .21	.21 to .28	.25 to .45
Ni	.05 to .07	.05 to .07	.03 to .08
Cu	.03 to .05	.05 to .10	.03 to .04
Zn	0 to .03	0 to .03	0 to .08
Pb	.05 to .07	.02 to .07	0 to .05
Mn	.02 to .03	.04 to .10	.04 to .15
S	.10 to .13	.07 to .15	.07 to .10
As	.07 to .09	.07 to .11	0 to .07
Ca	.87 to .88	.87 to .97	.86 to .95
Si	.02 to .07	.07 to .13	.05 to .10
Al	0	0	0



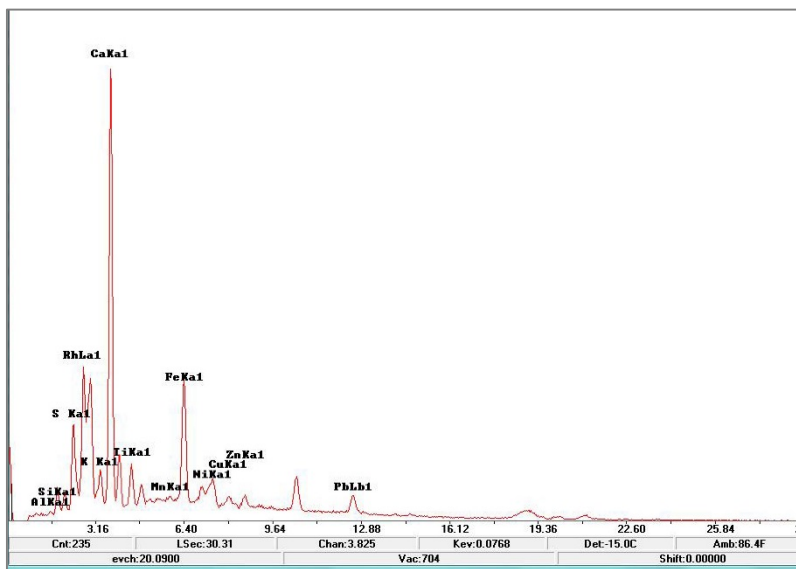
**CBNC
Regular Printing
PR 9-15 Black**



**CBNC
Special Printing
PR 33-39 Gray Black**



PR 9-15 Regular Printing



PR 33-39 Special Printing

Table of the XRF Results for the CBNC Regular Printing and the CBNC Special Printing Black Stamps

	1875 Continental Regular Issue Black PR 9-15	1875 Continental Special Printings Gray Black PR 33-39
Fe	.18 to .21	<u>.18 to .28</u>
Ni	.05 to .07	.05 to .06
Cu	.03 to .05	.02 to .05
Zn	0 to .03	.02 to .05
Pb	.05 to .07	.05
Mn	.02 to .03	.02 to .04
S	.10 to .13	<u>.18 to .26</u>
As	.07 to .09	.08 to .09
Ca	.87	.87 to .88
Si	.02 to .07	.03 to .07

**ABNC Special Printing
1883 2¢ PR 80 Intense Black**

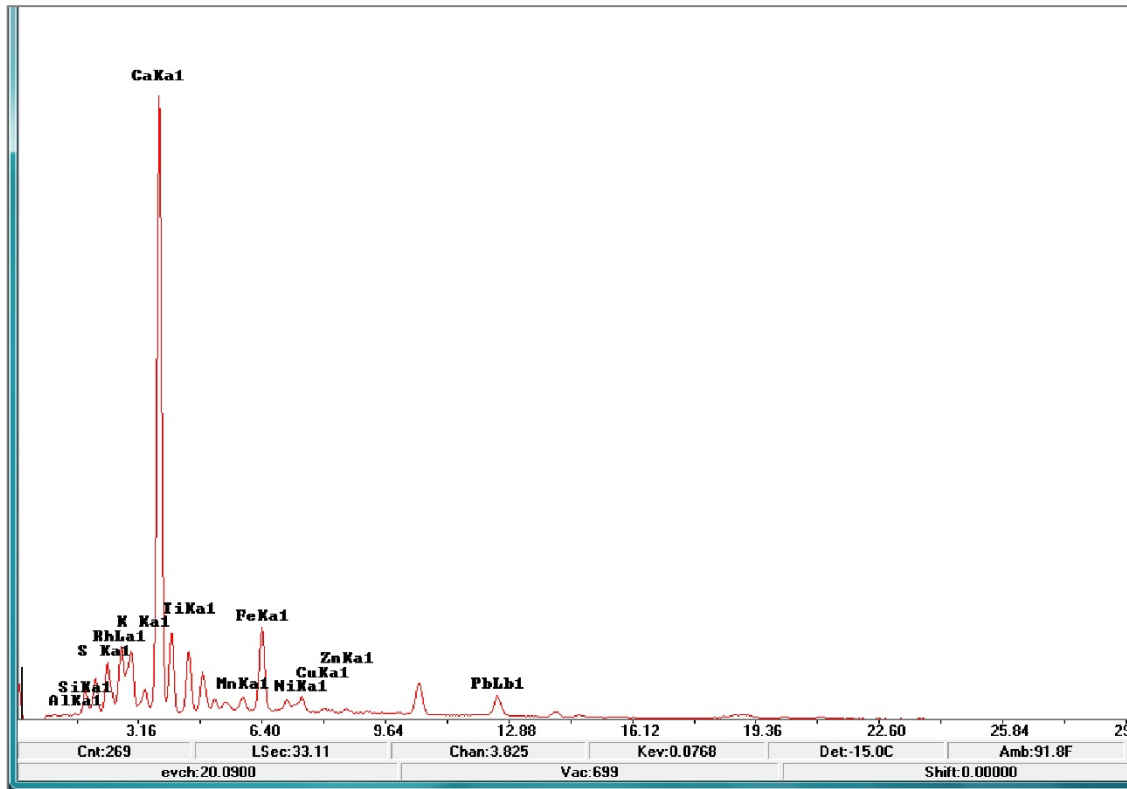


Patient 521532

**ABNC Regular Printing
1879 2¢ PR 57 Black**



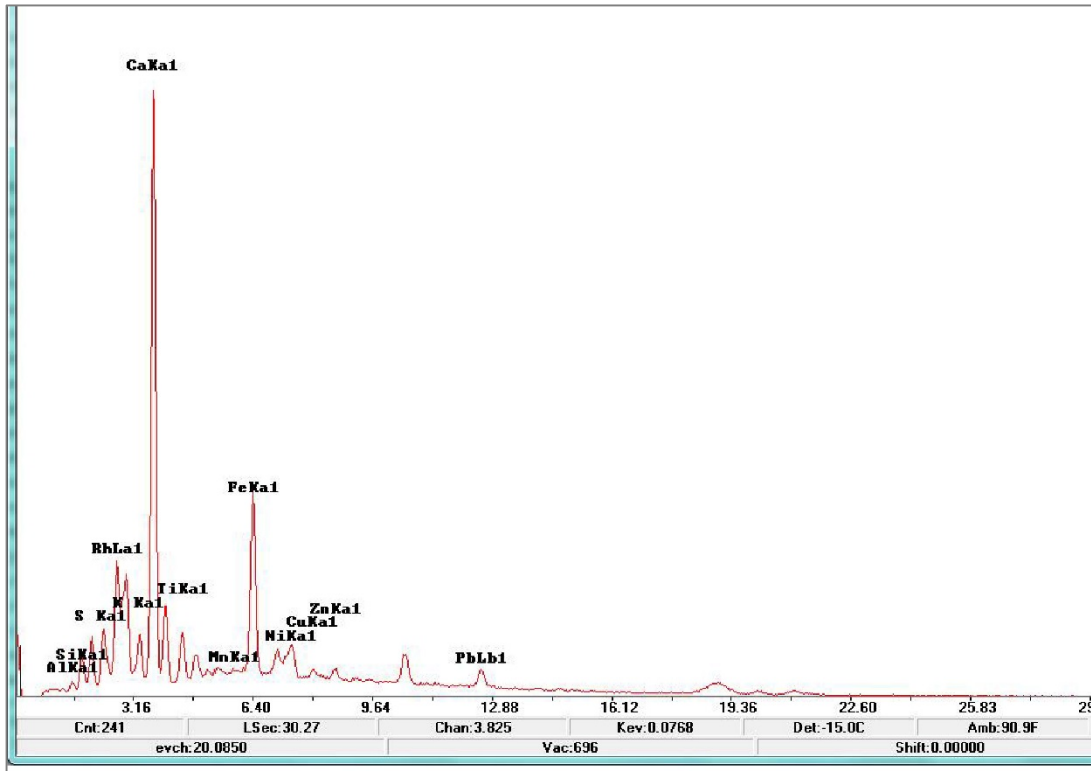
ABNC Special Printing 2¢ PR 80 Intense Black



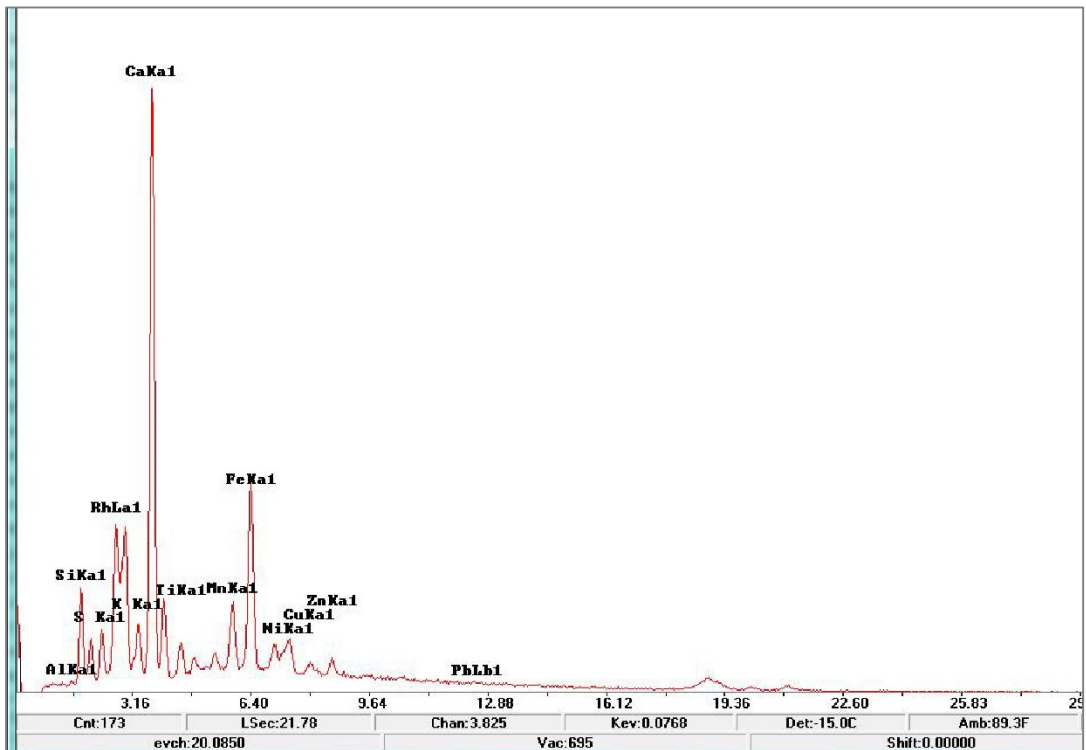
Comparison of the Four Two-Cent Black Newspaper Stamps

	1883 American Special Printing Intense Black PR 80	1879 American Regular Issue Black PR 57-62	1875 Continental Regular Issue Black PR 9-15	1894 Bureau Regular Issue Intense Black PR 90-94
Fe	.14 to .15	.21 to .28	.18 to .21	.25 to .45
Ni	.03	.05 to .07	.05 to .07	.03 to .08
Cu	.03	.05 to .10	.03 to .05	.03 to .04
Zn	0	0 to .03	0 to .03	0 to .08
Pb	.03 to .04	.02 to .07	.05 to .07	0 to .05
Mn	.03	.04 to .10	.02 to .03	.04 to .15
S	.06 to .08	.07 to .15	.10 to .13	.07 to .10
As	.06	.07 to .11	.07 to .09	0 to .07
Ca	.90	.87 to .97	.87 to .88	.86 to .95
Si	.04 to .05	.04 to .13	.02 to .07	.05 to .10
Al	0	0	0	0

XRF Results for ABNC PR 81 1¢ Black



XRF Results for BEP PR 90 1¢ Intense Black



**Table of the XRF Results for
 ABNC Regular Issue 1885
 PR 81 1¢ Black
 and
 1894 BEP Printing PR 90 1¢ Intense Black**

	1885 American 1¢ Black PR 81	1894 Bureau Intense Black PR 90-94
Fe	.30	.25 to .45
Ni	.07	.03 to .08
Cu	.04 to .08	.03 to .04
Zn	.03	0 to .08
Pb	.04	0 to .05
Mn	.04	.04 to .15
S	.08 to .10	.07 to .10
As	.07	0 to .07
Ca	.87	.86 to .95
Si	.04 to .06	.05 to .10
Al	0	0

The Red Newspaper Stamps



**CBNC
PR 21
Regular Printing**

PR 16-23



**ABNC
PR 82
Regular Printing**

PR 82-89



**BEP
PR 95
Regular Printing**

PR 95-99

PF Reference Collection Page for American Bank Note Company (ABNC) Printing PR 63-70 and American Bank Note Company (ABNC) Special Printing of 1885 PR 82-89

Red

Carmine



PF Reference Collection Page for ABNC PR 63-70 and ABNC Special Printings PR 82-89 and BEP Printing PR 95-99

PR63 Red
American



PR82 Carmine
American



PR95 Pink
Bureau White gum



PR64
PR83 American



PR96 White gum
Bureau



Rose versus Pale Rose



CBNC

**Regular Printing
PR 16-23
PR 17 shown**

Rose

CBNC

**Regular Printing
PR 16-23
PR 20 shown**

Rose

CBNC

**Special Printing
PR 40-47
PR 42 shown**

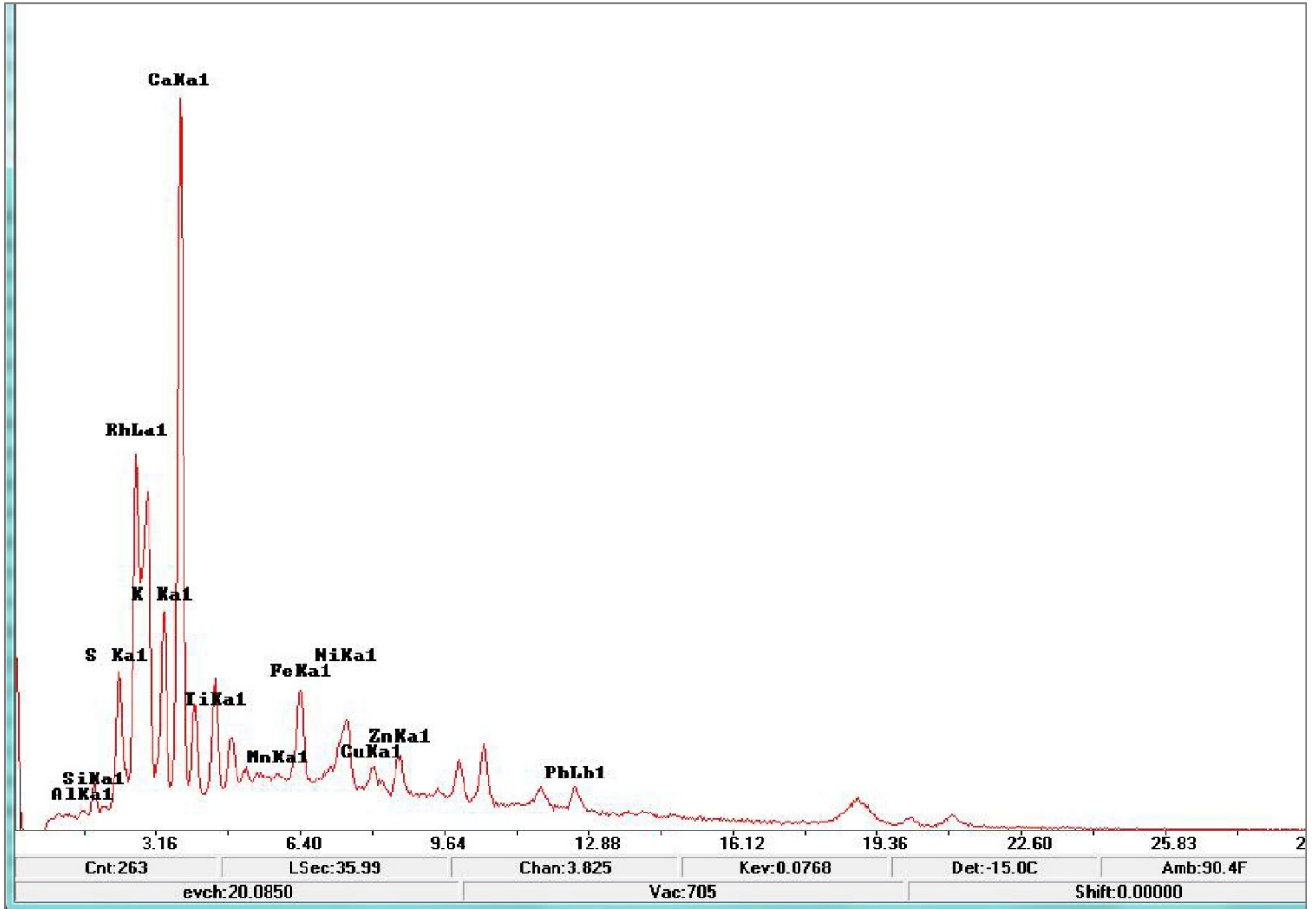
Pale rose

CBNC

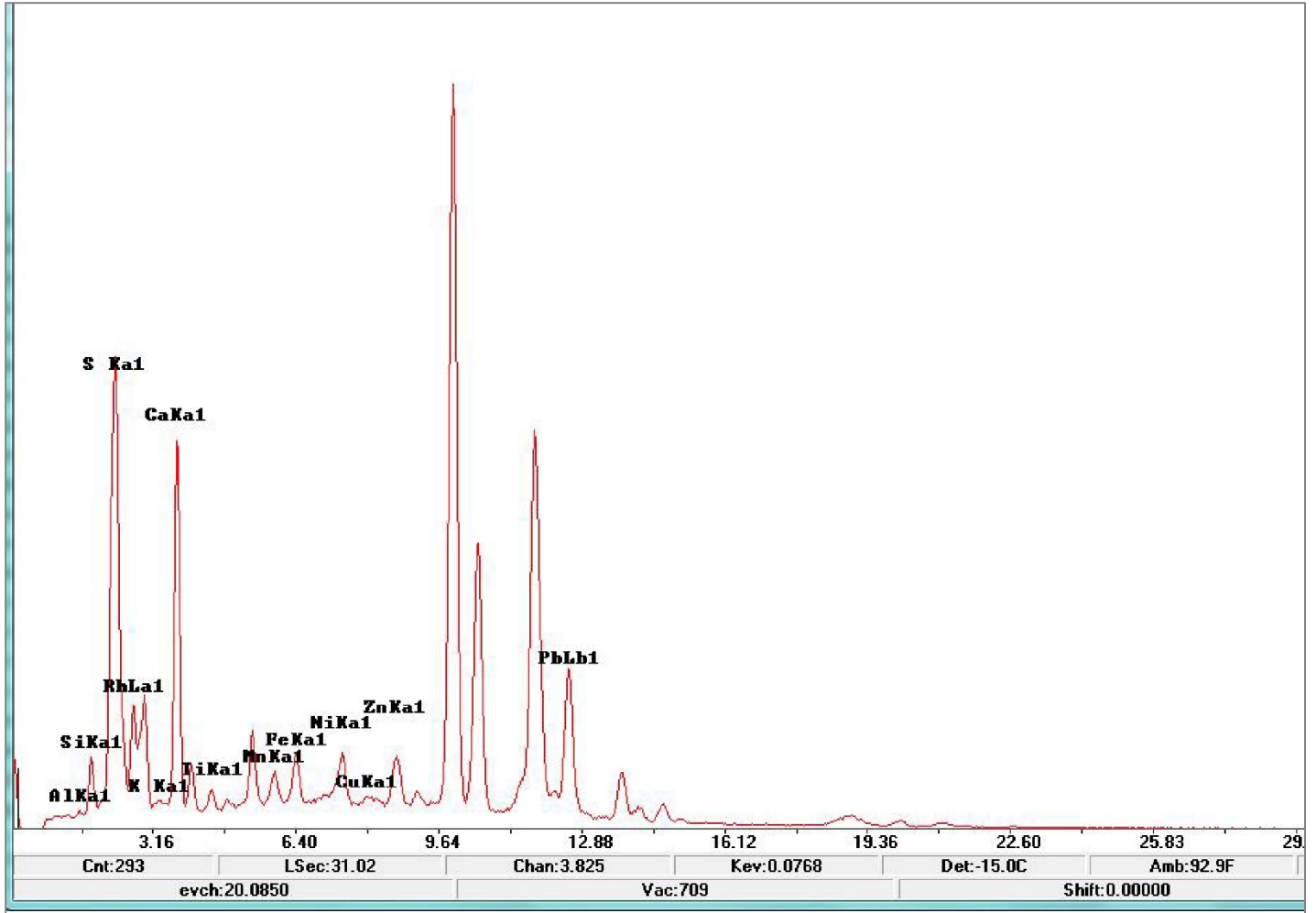
**Special Printing
PF 40-47
PR 43 shown**

Pale rose

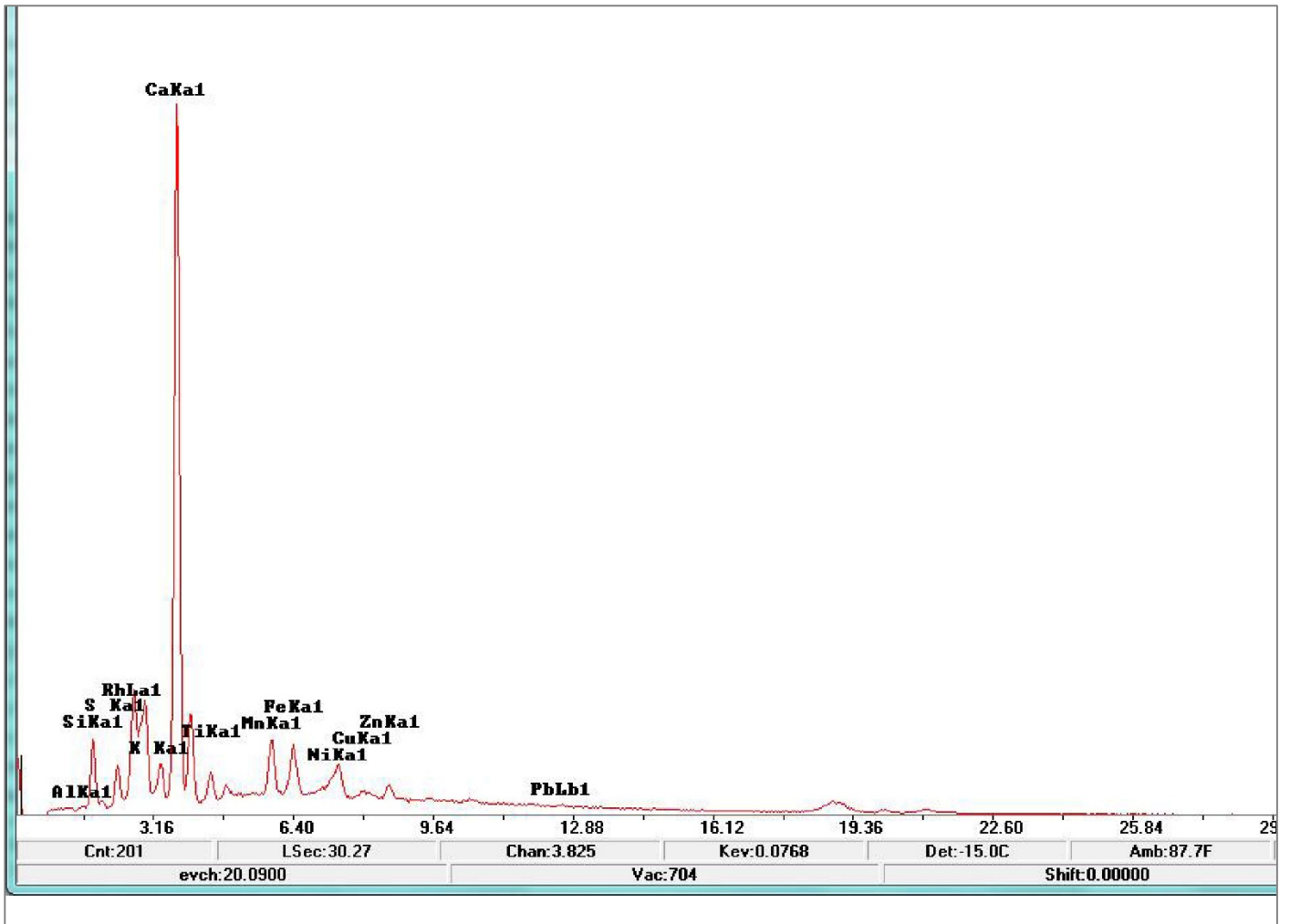
XRF Results for CBNC PR 16-23 Rose



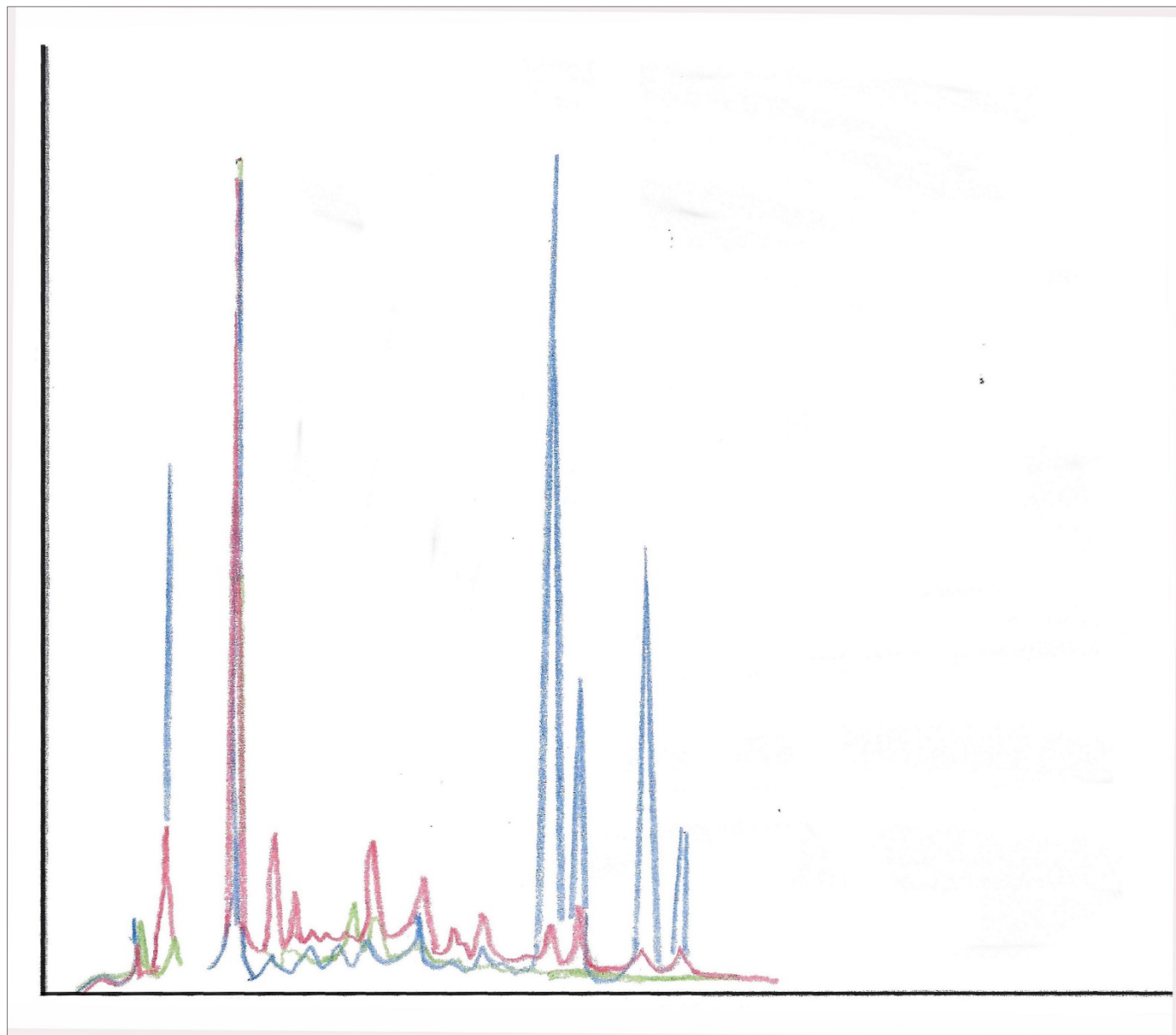
XRF Results for ABNC PR 63-70 Red






XRF Results for BEP PR 95-99 Pink



Overlay of the CBNC, ABNC and BEP XRF Results for the Red Newspaper Stamps

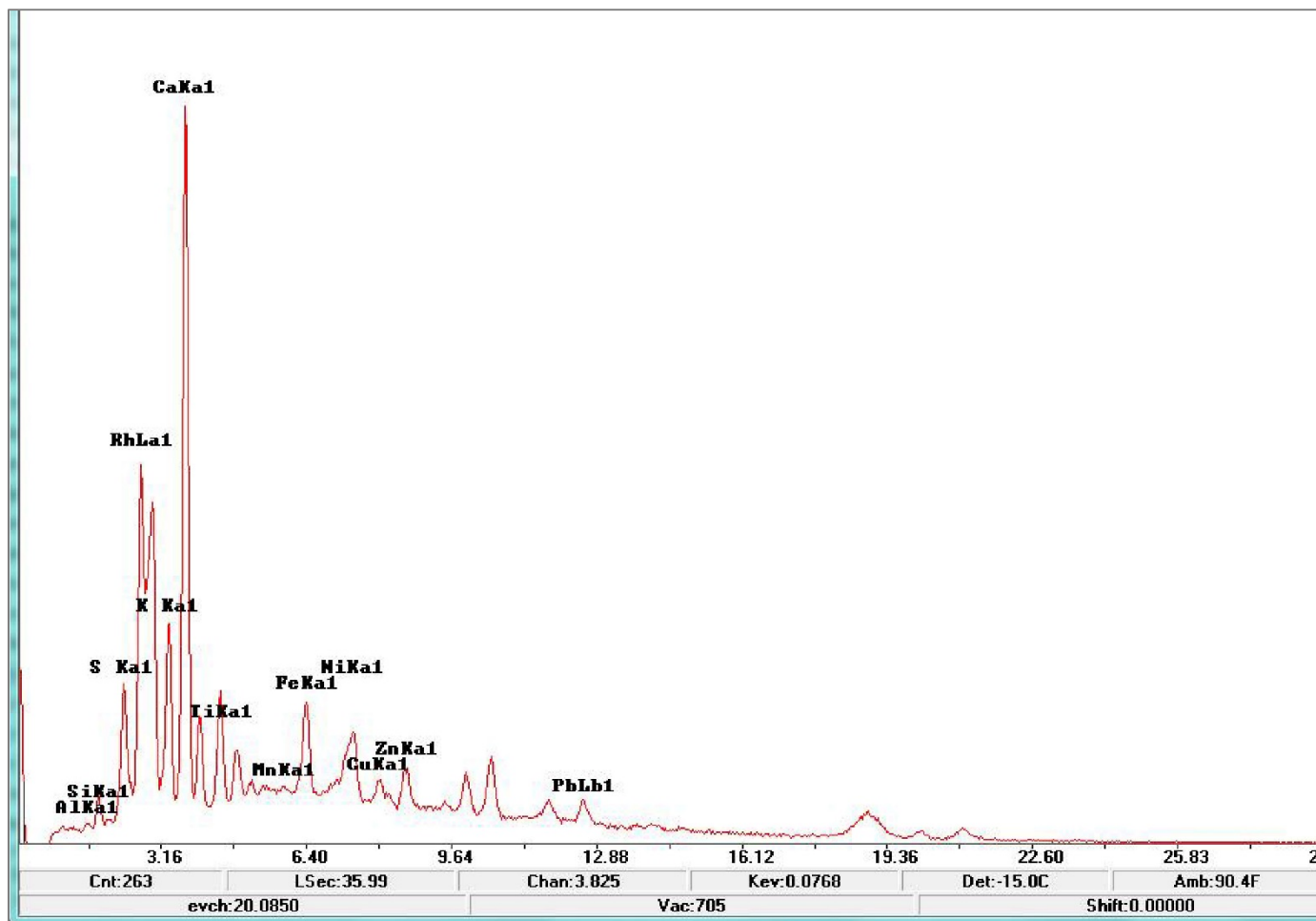


-  CBNC
-  ABNC
-  BEP

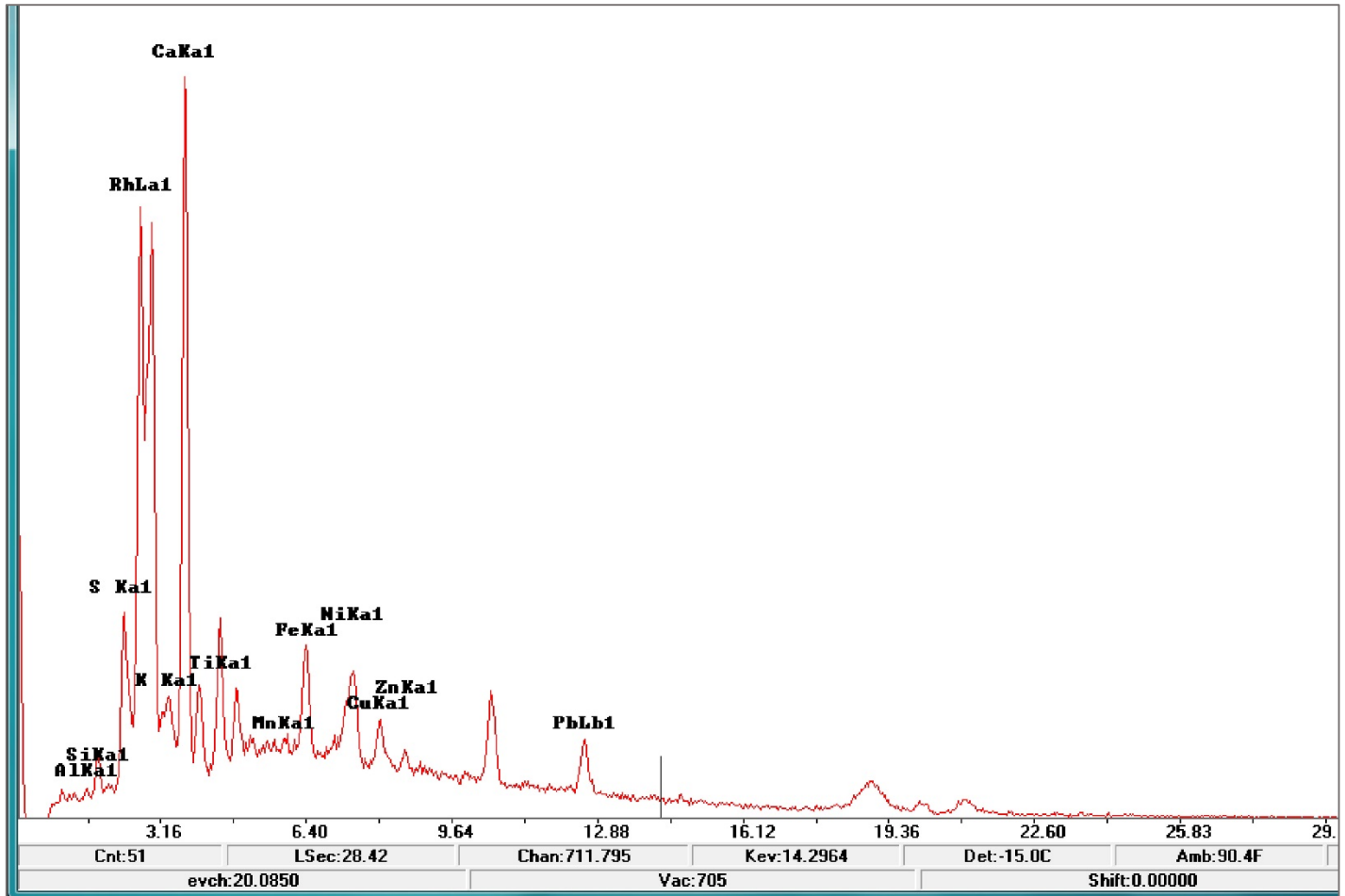
**Table of the XRF Results for
Comparison of the Continental, American and Bureau
Printings of the Red Ink Newspaper Stamps**

	<u>Continental</u> <u>PR 16-23</u>	<u>American</u> <u>PR 63-70</u>	<u>Bureau</u> <u>PR 95-99</u>
Fe	.17 to .18	.07 to .25	.09 to .15
Ni	.13	.07 to .20	.04 to .10
Cu	.07 to .08	.04 to .10	.03 to .05
Zn	.07 to .10	.08 to .15	.02 to .03
Pb	.05	.18 to .26	0
Mn	.07	.05 to .19	.02 to .15
S	.18 to .20	.54 to .70	.05 to .07
As	.05 to .10		0
Ca	.87 to .88	.40 to .88	.87 to .97
Si	.05 to .06	.05 to .23	.10
Hg	0	.32 to .60	0

XRF Results for CBNC Regular Issue PR 16-23 Rose



XRF Results for CBNC Special Printing PR 40-47 Pale Rose



**Table of the XRF Results for Comparison of the CBNC
Regular Issue and the CBNC Special Printing**

	1875 Continental Regular Issue PR 16-23 Rose	1875 Continental Special Printings PR 40-47 Pale Rose
Fe	.09 to .18	<u>.16 to .20</u>
Ni	.13	.13 to .17
Cu	.08 to .09	<u>.07 to .12</u>
Zn	.07 to .10	.07 to .08
Pb	<u>.05</u>	.07 to .10
Mn	.07	<u>.07 to .09</u>
S	<u>.18 to .20</u>	<u>.25 to .27</u>
As	<u>.05 to .10</u>	<u>.11 to .15</u>
Ca	.88	.87 to .88
Si	.05	.07