

1 this case in May 7, 1981, I believe, and attached to it are
2 some Xerox copies of Spectrographic plates that were pro-
3 vided us. Can you just take a minute and examine each of
4 the plates?

5 A. I have before me the plate you have out,
6 evidently -- plate listed 78243?

7 Q. Yes.

8 A. What kind of examination do you want me to
9 conduct of this?

10 Q. Well, just I want you to take a brief look at
11 it and tell me whether or not each of these plates -- from
12 these plates here, whether or not a quantitative analysis
13 could be made of the items that were listed as tested.

14 MR. COLE: In every one of the plates that are
15 shown in the attachments to these Interrogatories?

16 MR. LESAR: Yes.

17 A. Well, if these are reproductions of plates --
18 of photographs of plates that were given you, a strict quan-
19 titative analysis could not be done on these plates.

20 Q. Why not?

21 A. Because the standard -- the standards that
22 were used here were not calibrated standards.

23 Q. How would that be reflected on the plate?
24 What would a plate that is calibrated show that these do not?

25 A. Well, the notes that were accompanying them
26 would show what the concentration of the elements were and
27 would measure -- you would have densitometer measurements
28 for each of the lines.

1 Q. So, as I understand that what you're saying is
2 that only the examiner who took these at the time would be
3 able to determine the quantitative results of these?

4 A. No, that's not so at all.

5 Q. Even he would not be able to?

6 A. No, he would not be able to.

7 Q. Okay, and what is it that you have to have to
8 enable you to do that?

9 A. For these plates?

10 Q. Yes.

11 A. Too late. You cannot do quantitative analysis
12 on these plates - strict quantitative analysis.

13 Q. Okay. What do you mean by strict quantitative
14 analysis?

15 A. You can do semi-quantitative analysis on these
16 plates...

17 Q. Would you distinguish?

18 A. That is an intercomparison of one sample with
19 another based on the density of the lines. You can say, for
20 instance, one sample has more antimony in it than another
21 sample. One sample has no bismuth. Another sample has bis-
22 muth. A third sample has copper; another sample has three
23 (3) times as much copper. One sample has "X" amount of
24 silver; the other sample has seven (7) "X" amount of silver.
25 It doesn't tell you how much is there but it's a relation-
26 ship of one sample to another.

27 Q. Now, what do you have to do to be able to get
28 numbers - to get the quantitative measurements?

1 A. Off these plates?

2 Q. When you test a sample.

3 A. What you would do is have a standard material,
4 the analysis of which is certified, and you would burn that
5 under the same conditions as you burn the other specimens
6 here and you would measure the density of the various lines
7 produced for certain elements in your elements you're inter-
8 ested in and compare those densities to the densities of
9 lines in your question specimen.

10 Q. Allright. Now, would you look at the materials
11 that were provided us in this case -- they should be in this
12 Exhibit 2, I believe it is -- and see whether or not any
13 such quantitative figures were provided in any of the tests
14 made by the F.B.I.?

15 A. There is some quantitative figures produced by
16 that, yes, in neutron activation analysis.

17 Q. On just the spectrographic we're talking about
18 now. Would you locate this page and see...

19 A. Well, that page has nothing to do with activa-
20 tion -- or spectrographic analysis.

21 Q. This is neutron activation?

22 A. Yes.

23 Q. Okay.

24 MR. COLE: Jim, I think, maybe, since you have
25 asked for him to take a look at a substantial amount of
26 material, we should probably take a break at this time and
27 I'd like to talk with the witness and see if we can come up
28 with the material you're talking about in Exhibit 2.

1 MR. LESAR: Okay.

2 (A brief recess was taken.)

3 Q. Mr. Kilty, could you look at Exhibit 2 and
4 see if there are any -- start from the first and leaf through
5 it until you come to any quantitative spectrographic results?

6 MR. COLE: I think we'd maybe best clarify the
7 question, Mr. Lesar. Are you saying that he's looking for
8 quantitative results? Does that mean any page that deals
9 with quantitative analysis?

10 MR. LESAR: Yes, that's correct.

11 A. The closest one -- the closest item would be
12 a -- whatever -- it's 78243 on the bottom. It's got some
13 numbers.

14 Q. Allright, could we have that marked "2-A",
15 please? Now, why do you say that this is the closest thing?

16 A. Well, it has some numbers on it and there were
17 some standards run but it's not -- it's still a semi-quantitative
18 analysis.

19 Q. Okay. Why couldn't they have made a stricter
20 quantitative analysis?

21 A. Well, probably was no need for it, simply
22 because in my view, there'd be no need.

23 Q. There was no technical reason that would have
24 prevented them from doing it, given the state of the art at
25 the time?

26 A. I'm not sure of the quality of the densitometer
27 that they had in 1963 when this was done as to whether or
28 not they could have made a strict quantitative analysis.

1 Q. Could they have done so in 1964?
2 A. I don't know. I wasn't in the laboratory.
3 Q. I thought you were in the laboratory in 1964?
4 A. No.
5 Q. When did you join the laboratory?
6 A. In February of 1965.
7 Q. Okay. Could they have done so in February,
8 1965?
9 A. I don't think so. They were in the process of
10 purchasing a different kind of a densitometer then. I don't
11 think they had it.
12 Q. On the following page, there are some numbers
13 on the lefthand margin. The one at the top says 72 C-Control
14 and at the bottom...
15 MR. COLE: Mr. Lesar, if you're going to refer to
16 this page, can we have this also marked as "2-B" so that
17 we'll be...
18 MR. LESAR: Certainly.
19 MR. COLE: Keeping it straight?
20 Q. Now, I note that the last number in the left-
21 hand margin on that page is -- it says 42 and then dash nine
22 (9) and then it says scrapings from inside windshield "Q15".
23 What does the 42 signify?
24 A. Well, that's the rack number.
25 Q. What does the rack number indicate?
26 A. The place on the plate.
27 Q. And what does the 9 indicate?
28 A. That's the ninth sample from the top.

1 Q. Now, referring back to the previous page, 2-A,
2 is there -- are there any figures there that pertain to the
3 "Q15" sample?

4 A. I don't see a notation that "Q15" is associated
5 with page "2-A".

6 Q. Allright. Is there any reason why there are
7 not the sort of numbers for "Q15" as there are for any of
8 the other items that were -- for which there are numbers on
9 "2-A"?

10 A. I don't know.

11 Q. Would it have been possible to have done the
12 same type of -- obtained the same type of quantitative mea-
13 surements for "Q15" as for the other samples?

14 MR. COLE: I object. I don't think that you have
15 established that there was a type of quantitative analysis
16 done for the others besides "Q15". If you'd like to ask the
17 witness that, maybe that could clarify that point.

18 Q. Mr. Kilty, as I understand your testimony,
19 "2-A" -- the figures on "2-A" -- represent a type of quanti-
20 tative analysis.

21 A. Yes, called semi-quantitative analysis, I would
22 characterize it as.

23 Q. Now, is there any reason why that semi-quantitative
24 analysis could not have been done for "Q15"?

25 A. I don't know.

26 Q. Can you think of any reason why it might not have
27 been done?

28 A. No. It would be pure speculation which I am