

FILE NAME: Johnson & Johnson (JAJ)

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DOCUMENT DESCRIPTION: Legal - Deposition of Dr. John Hopkins Part 1

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

TINA HERFORD and DOUGLAS HERFORD,

Plaintiffs

vs

Case No. BC646315

AT&T CORP., a subsidiary of AT&T INC.

and its subsidiary PACIFIC BELL

TELEPHONE COMPANY, et al.,

Defendants.

VIDEO DEPOSITION OF DR. JOHN HOPKINS

Day 1

Tuesday, August 15, 2017

AT: 10:17 am

Taken at:

Shook Hardy & Bacon LLP

25 Old Broad Street

London EC2N 1HQ

United Kingdom

Court Reporter:

DEIRDRA JORDAN

Job No. 2657967

Page 2 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 SUPERIOR COURT OF NEW JERSEY LAW DIVISION - MIDDLESEX COUNTY DAVID CHARLES ETHERIDGE and DARLENE PASTORE ETHERIDGE, Plaintiffs, vs Docket No. MID-L-0932-17 AS BRENNTAG NORTH AMERICA, INC. (sued individually and as successor-in-interest to MINERAL PIGMENT SOLUTIONS, INC. and as successor-in-interest to WHITTAKER CLARK & DANIELS, INC.) et al., Defendants.	Page 4 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 SUPERIOR COURT OF NEW JERSEY LAW DIVISION - MIDDLESEX COUNTY IRMA VERDOLOTTI, Plaintiff, vs Docket No. MID-L-5973-16 AS BRENNTAG NORTH AMERICA, INC. (sued individually and as successor-in-interest to MINERAL PIGMENT SOLUTIONS, INC. and as successor-in-interest to WHITTAKER CLARK & DANIELS, INC.) et al., Defendants.
Page 3 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 SUPERIOR COURT OF NEW JERSEY LAW DIVISION - MIDDLESEX COUNTY RONALD MARTIN TEUSCHER and SHANNON TEUSCHER, Plaintiffs, vs Docket No. MID-L-7249-16 AS BRENNTAG NORTH AMERICA, INC. (sued individually and as successor-in-interest to MINERAL PIGMENT SOLUTIONS, INC. and as successor-in-interest to WHITTAKER CLARK & DANIELS, INC.) et al., Defendants.	Page 5 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 APPEARANCES Appearing for the Plaintiffs: SIMON GREENSTONE PANATIER BARTLETT, PC BY: CHRIS PANATIER, ESQ. BY: LEAH C. KAGAN, ESQ. 3232 McKinney Avenue, Suite 610 Dallas, Texas 75204 214.276.7680 cpanatier@sgpbllaw.com lkagan@sgpbllaw.com Appearing for the Defendant Johnson & Johnson: TUCKER ELLIS LLP BY: SHARLA J. FROST, ESQ. 405 Main Street, Suite 500 Houston, Texas 77002 972.537.4205 sharla.frost@tuckerellis.com Appearing for the Defendant Johnson & Johnson: SHOOK HARDY & BACON LLP BY: KATHLEEN FRAZIER, ESQ. JPMorgan Chase Tower 600 Travis Street, Suite 3400 Houston, Texas 77002-2926 713.227.8008 kfrazier@shb.com Appearing for the Defendant Whittaker Clark & Daniels: HOAGLAND LONGO MORAN DUNST & DOUKAS LLP BY: MARC S. GAFFREY, ESQ. 40 Paterson Street, PO Box 480 New Brunswick, New Jersey 08903 732.545.4717 mgaffrey@hoaglandlongo.com

Page 6 1 APPEARANCES...(continued) 2 Attending via telephone: 3 LEVY KONIGSBERG LLP 4 BY: MOSHE MAIMON, ESQ. 5 BY: DANIEL LATERRA, ESQ. 6 800 Third Avenue, 11th Floor 7 New York, New York 10022 8 212.605.6200 9 mmaimon@levylaw.com 10 dlaterra@levylaw.com 11 (For Plaintiffs in the Lanzo matter) 12 13 14 15 RAWLE & HENDERSON LLP 16 BY: WILLIAM T. POLASKI, ESQ. 17 Henry W. Oliver Building 18 535 Smithfield Street, Suite 1000 19 Pittsburgh, Pennsylvania 15222 20 412.281.5000 21 william.polaski@rawle.com 22 (For Cyprus Amax Minerals Company and 23 Imerys Talc America in NJ cases) 24 25 16 HAWKINS PARNELL THACKSTON & YOUNG LLP 17 BY: OLIVER BUNDY, ESQ. 18 455 S. Figueroa, Suite 3200 19 Los Angeles, California 90071-1651 20 213.486.8043 21 obundy@hptylaw.com 22 (For Elizabeth Arden Inc., Revlon Inc., 23 Bristol-Myers Squibb Company and Yves Saint 24 Laurent America, Inc. in Herford case) 25 21 FOLEY & MANSFIELD 22 BY: AMADEA GROSECLOSE, ESQ. 23 300 South Grand Avenue, Suite 2800 24 Los Angeles, California 90071 25 213.283.2100 mgroseclose@foleymansfield.com (For Unilever United States, Inc. and Conopco, Inc. in Herford case)	Page 8 1 APPEARANCES...(continued) 2 Attending via telephone: 3 MONTGOMERY McCracken Walker & Rhoads, LLP 4 BY: RONALD E. HURST, ESQ. 5 123 South Broad Street 6 Philadelphia, Pennsylvania 19109 7 215.772.7242 8 rhurst@mmwr.com 9 (For Brenntag Specialties in Teuscher case) 10 11 12 DRINKER BIDDLE & REATH LLP 13 BY: JACK N. FROST, ESQ. 14 600 Campus Drive 15 Florham Park, New Jersey 07932-1047 16 973.549.7338 17 jack.frost@dbi.com 18 (For Johnson & Johnson in all but Herford) 19 20 21 FOLEY & MANSFIELD 22 BY: SEANA AZAD, ESQ. 23 300 Lakeside Drive, Suite 1900 24 Oakland, California 94612 25 510.590.9511 sazad@foleymansfield.com (For specially appearing Whittaker Clark & Daniels Inc in Herford case) 21 22 23 24 VIDEOGRAPHER: LINDA FLEET 25
Page 7 1 APPEARANCES...(continued) 2 Attending via telephone: 3 ORRICK, HERRINGTON & SUTCLIFFE LLP 4 BY: PETER BICKS, ESQ. 5 BY: ANNE MALIK, ESQ. 6 1152 15th Street, N.W. 7 Washington, DC 20005 8 202-339-8458 9 pbicks@orrick.com 10 amalik@orrick.com 11 (For Johnson & Johnson) 12 13 14 HARRIS BEACH PLLC 15 BY: MATTHEW QUirin, ESQ. 16 100 Wall Street 17 New York, New York 10005 18 212.912.3505 19 mquirin@harrisbeach.com 20 (For GlaxoSmithKline in Teuscher case) 21 22 23 COSMICH SIMMONS & BROWN, PLLC 24 BY: LAKEYSHA GREER ISAAC, ESQ. 25 BY: LUCY SAVORGNAN, ESQ. 100 Vision Drive, Suite 200 Jackson, Mississippi 39211 601.863.2100 lakeysha@cs-law.com lsavorgnan@cs-law.com (For Shulton, Inc., sued individually and as successor to The Shulton Group and/or Shulton, Inc.; The Procter & Gamble Company, sued as successor-in-interest to The Shulton Group and/or Shulton, Inc.; and Wyeth Holdings LLC, f/k/a Wyeth Holdings Corporation, f/k/a American Cyanamid Company, sued individually and as successor-in-interest to The Shulton Group and/or Shulton, Inc.) 21 22 KING & SPALDING LLP 23 BY: JULIA ROMANO, ESQ. 24 633 West Fifth Street, Suite 1700 25 Los Angeles, California 90071 213.443.4365 jromano@kslaw.com (For Johnson & Johnson in Herford case)	Page 9 1 (On the record at 10:17 am) 2 VIDEOGRAPHER: We are now on the record. My 3 name is Linda Fleet, representing Veritext. The date 4 today is August 15, 2017, and the time is approximately 5 10:17 am. 6 This deposition is being held at Shook Hardy 7 & Bacon LLP, 25 Old Broad Street, London EC2N 1HQ, 8 United Kingdom. The caption of this case is Herford, 9 Verdolotti, Teuscher and Etheridge versus Johnson & 10 Johnson. The name of the witness is John Hopkins. 11 Could the attorneys present please identify 12 yourselves and state whom they represent. 13 MR PANATIER: Chris Panatier and Leah Kagan 14 for the Plaintiffs. 15 MS FROST: Sharla Frost for Johnson & 16 Johnson. 17 MS FRAZIER: Kathleen Frazier for Johnson & 18 Johnson. 19 MR GAFFREY: And Marc Gaffrey, Hoagland Longo 20 Moran Dunst & Doukas, for Whittaker Clark & Daniels. 21 VIDEOGRAPHER: Our court reporter, Deirdra 22 Jordan, will swear in the witness and we can proceed. 23 JOHN HOPKINS, 24 having been duly sworn, 25 testified as follows:

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1 MR PANATIER: And before we -- before I start
2 asking questions -- this is Chris Panatier for the
3 Plaintiffs -- we've reached an agreement with counsel
4 for Johnson & Johnson that all objections will be
5 reserved until the time that designations are made for
6 playing at trial, with the exception of any harassment
7 of the witness that I may do or privileged objections.
8 Is that agreeable?
9 MS FROST: That is correct, and to make sure
10 that it is clear, because the deposition is being taken
11 in connection with cases pending in two separate
12 jurisdictions, where there are two separate sets of
13 standards for the objections, it is the agreement of
14 the parties to defer the objections until the time that
15 either the written transcript or the videotape are to
16 be used in connection with the trial in order to ensure
17 that neither party has a procedural issue in connection
18 with the phrasing or the use of the transcript or the
19 objections.
20 MR PANATIER: That's agreeable. Okay.
21 EXAMINATION BY MR PANATIER:
22 Q All right, sir. Are you ready to go?
23 A I am.
24 Q Okay.
25 Can you go ahead and just state your name.

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1 A My name is John Hopkins.
2 Q All right, and Mr -- it's Dr Hopkins, isn't it?
3 A It is, yes.
4 Q All right.
5 Now, Dr Hopkins, you understand you're being
6 produced as the corporate representative for Johnson &
7 Johnson in this deposition?
8 A I understand that, yes.
9 Q And you understand that means that you are the
10 -- for purposes of these cases, you are the face of
11 Johnson & Johnson; you understand that?
12 A I understand that, yes.
13 Q And that your answers are the answers of
14 Johnson & Johnson; correct?
15 A Correct.
16 Q All right.
17 Now, you are the corporate representative in
18 the Herford case; do you understand that?
19 A I do, yes.
20 Q You are the corporate representative in the
21 Etheridge case?
22 A I understand that.
23 Q The Teuscher case?
24 A I understand that, yes.
25 Q And the Verdolotti case?

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1 A I understand that, yes.
2 Q All right.
3 Now, you're the corporate representative.
4 Can you just explain in your own words why you are
5 serving as the corporate representative, as opposed to
6 somebody else?
7 A Okay. My career -- I started with Johnson &
8 Johnson in 1976 as a toxicologist. Prior to that, I'd
9 worked for the company that's now GlaxoSmithKline in
10 toxicology of pharmaceuticals.
11 I worked for the UK company of Johnson &
12 Johnson from 1976 and my expertise and background was
13 in the safety, amongst other things, of talc and talc
14 products.
15 I stayed with Johnson & Johnson based in the
16 UK until 1995 and then moved to the US for four years
17 to the end of 1998.
18 I then moved to France -- Johnson & Johnson
19 in France, and I left the company in 2000.
20 Following from that, I stayed as a consultant
21 for a few hours a week until 2011 for the Johnson &
22 Johnson European companies.
23 Q Okay.
24 A So my background, to answer your question, is
25 that I've a good understanding of the safety of talc.

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1 Q All right.
2 So you're not currently employed by Johnson &
3 Johnson; right?
4 A That is correct.
5 Q And you haven't been employed by Johnson &
6 Johnson since the year 2000; correct?
7 A Correct.
8 Q All right.
9 When in 2000 did you leave?
10 A April.
11 Q Okay.
12 You have been a private consultant since you
13 left in April of 2000; fair?
14 A Correct. I am a consulting toxicologist, yes.
15 Q And you actually serve as an expert witness in
16 various cases; fair?
17 A I have served as expert witness, yes.
18 Q Okay.
19 Johnson & Johnson has retained you as an
20 expert witness in some of its cases; true?
21 A Not directly with Johnson & Johnson, but via
22 the attorneys for Johnson & Johnson.
23 Q Okay.
24 So the lawyers who represent Johnson &
25 Johnson have retained you in cases involving Johnson &

Page 14 1 Johnson? 2 A That is correct. 3 Q All right. 4 And there you're testifying as an expert 5 toxicologist? 6 A In some cases. Most cases, yes. 7 Q All right. 8 Have you ever testified on behalf of an 9 individual, a plaintiff? 10 A No. 11 Q Okay. 12 About how many times have you served as an 13 expert witness for Johnson & Johnson? 14 A I'd calculate about six. 15 Q All right. 16 Were those all in cases involving talc or 17 other products? 18 A They were all involving talc. 19 Q Okay, and were they all involving the 20 allegation that talc had played a role in causing 21 ovarian cancer? 22 A No, not all, no. 23 Q Okay. All right. 24 So some of them were? 25 A Some of them were.	Page 16 1 executives, right, currently? 2 A Yes. 3 Q And they have executives in the United States; 4 right? 5 A Correct. 6 Q I mean, where is the headquarters of Johnson & 7 Johnson, worldwide? 8 A It's in New Brunswick, in the State of New 9 Jersey. 10 Q All right. New Jersey in the US; right? 11 A Correct, yes. 12 Q Now, the company that you worked for over here 13 in England was what? 14 A Johnson & Johnson Ltd. 15 Q All right. 16 And what is the company in the US called? 17 A Johnson & Johnson. 18 Q Okay. All right. 19 Now, Johnson & Johnson has subsidiaries 20 worldwide; correct? 21 A That is correct, yes. 22 Q And about how many employees worldwide? 23 A I don't have that up to date figure. 24 Q Okay. 25 What is your not up to date figure?
Page 15 1 Q And what were the other ones involved with? 2 A Someone had a pulmonary problem. A lung 3 problem. 4 Q All right. 5 What was the lung problem? 6 A Well, it wasn't actually related to talc. It 7 was later diagnosed as a sarcoma, which is -- was not 8 talc-related -- 9 Q Right. 10 A -- when the medical examiner looked at it. 11 Q Well, in any of the cases that you've 12 testified, did you maintain the opinion that Johnson & 13 Johnson's products had played any role in the 14 development of that person's disease? 15 A My opinion was and still is that no Johnson & 16 Johnson talc products have ever played a role in a 17 person's disease. 18 Q All right. 19 I take it that here today your opinion is 20 that talc, as sold by Johnson & Johnson and used by 21 Johnson & Johnson customers, has never played a role in 22 the development in any person's disease; is that fair? 23 A That is my opinion, yes. 24 Q Okay. 25 Now, certainly Johnson & Johnson has	Page 17 1 A It is many thousands. 2 Q Tens of thousands? 3 A Tens of thousands. 4 Q Right. 5 A That's my understanding, yes. 6 Q Okay. 7 And Johnson & Johnson is one of the biggest 8 companies in the world, is it not? 9 A It is one of the largest companies by value, 10 yes, yes. 11 Q And it's certainly one of the largest by gross 12 revenues; correct? 13 A That's probably correct. It would be in the 14 top -- top ten, top 20, yeah. 15 Q Right. 16 Who would some of their company be? 17 A Would you repeat the question? 18 Q Sure. Who would some of Johnson & Johnson's 19 company be, in terms of the top ten? 20 A Okay. Competitor companies? Yeah, other 21 companies, companies like Exxon, GlaxoSmithKline, 22 large -- Amazon, Google. Yeah. 23 Q Okay. 24 Now, we came here to London to take your 25 deposition and we've enjoyed it so far.

Page 18 1 Are you available to travel to the United 2 States to testify in these trials? 3 A In theory, yes. 4 Q Okay. Now, what does that mean? 5 A Well, it would depend on what my schedule was, 6 you know, in a particular case. 7 Q Okay. 8 Now, do you have a valid travel passport? 9 A Yes. 10 Q Okay. 11 We had been told you did not, but you do? 12 A Yes. 13 Q Okay. All right. 14 MS FROST: For the record, that 15 representation did not come from us. So I don't know. 16 MR PANATIER: It didn't come from you. 17 MS FROST: It didn't come from me. 18 MR PANATIER: No, it did not come from you. 19 MS FRAZIER: Well, for the record, I'll say 20 that Dr Hopkins' passport was expiring -- 21 THE WITNESS: Yes. 22 MS FRAZIER: -- earlier this year, and so he 23 had to renew it, and there was a several week time 24 period in which he could not travel. 25 THE WITNESS: That is correct. There was a	Page 20 1 A Yes. 2 Q You no longer have possession? 3 A I do not. 4 Q Okay. 5 And how long had you had them in your 6 possession? 7 A Since about 1999. 8 Q Okay. 9 A Yes. 10 Q So from 1999 until 2017 last week -- 11 A Yes. 12 Q -- you had some Johnson & Johnson's Baby Powder 13 containers? 14 A That is correct, yes. 15 Q Okay. 16 About how many did you have? 17 A Old, historic samples, about half a dozen. 18 Q Okay. 19 A I think it was, yeah. 20 Q All right. 21 And why do you not have them anymore? 22 A Because they've been shipped to Johnson & 23 Johnson in the United States. 24 Q All right. 25 Did you just decide to ship them there, or
Page 19 1 short window when I did not have a passport. 2 BY MR PANATIER: 3 Q When was that? 4 A The spring of this year, yeah. 5 Q Okay. 6 A Yeah. 7 Q All right. But you're good now? 8 A Yes. 9 Q Right. 10 A For another ten years. 11 Q Okay. Good. Okay. 12 Do you personally maintain or have in your 13 possession containers of Johnson's Baby Powder? 14 A No, I don't, no. 15 Q Okay. 16 Do you have control over some number of 17 Johnson's Baby Powder products? 18 A I don't anymore, no. 19 Q Okay. 20 A Do not. 21 Q When did you? 22 A Until recently. 23 Q Really? So how recently? 24 A This past week. 25 Q This past week?	Page 21 1 were you told to ship them there? 2 MS FROST: And I'm going to object based on 3 attorney client privilege. 4 BY MR PANATIER: 5 Q Okay. So don't tell me anything the lawyers 6 have said, and that rule goes for the whole deposition; 7 okay? 8 You understand that, I'm sure? 9 A Yes. 10 Q Did you up and decide to just ship them there, 11 or was it something else? 12 A It was something else. 13 Q Okay. 14 So you've shipped them back to headquarters? 15 A Yes. 16 Q To whom did you ship them? 17 A I gave -- I gave the samples, or the samples 18 were given to a Shook Hardy Bacon administrative 19 assistant. 20 Q Okay. 21 So you sent them to the lawyers for J&J? 22 A I believe that was the case, yes. 23 Q All right. 24 So you had them for about 18 years or so? 25 A They were -- yeah, they were locked away in my

Page 22 1 attic. I'd not looked at them for that time, yes. 2 Q Okay. 3 Now, for those half a dozen or so containers, 4 did you mark them in any way so that we know they came 5 from you if ultimately we get them from -- 6 A Well, each of them have an address, which is 7 Johnson & Johnson, England, which identifies them. 8 They each have a date -- 1946 or whatever -- 9 on the bottom, yes. 10 Q Okay. 11 A They're identifiable. 12 Q Okay. 13 And can you tell me -- you threw out the date 14 1946 -- can you tell me the approximate date ranges of 15 these products? 16 A Yeah. Well, they're not exact to the year. 17 They're dated late 1940s, early 1950s, late 1950s, and 18 one with an exact date of October, 1966. 19 Q Okay. 20 So these are all several decades old? 21 A They are, yes. 22 Q Okay. 23 A Yes. 24 Q And why did you have them in the first place? 25 A Very simply, the facility in the UK was being	Page 24 1 Q Okay. 2 To your knowledge, no one else took them out 3 of your attic, played with them -- 4 A No. 5 Q -- and put them back? 6 A No, no. They were locked away in the attic. 7 Q All right. All right. 8 Does Johnson & Johnson believe that this is 9 an important case? 10 A Yes. 11 Q Okay. 12 And that someone has claimed they got 13 mesothelioma because of asbestos in your talc is pretty 14 serious; right? 15 A It would be if it were true, yes. 16 Q Okay. 17 You've already decided it's not true; 18 correct? 19 A I have read the literature relating to the 20 safety of talc, and that is my opinion. 21 Q Okay. 22 It is your opinion that any talc sold by 23 Johnson & Johnson could not have played a role in 24 causing anybody's mesothelioma; right? 25 A That is my opinion, yes.
Page 23 1 closed -- in fact, it's totally flattened -- and I just 2 thought it was nice to take samples before they were 3 put in the dumpster. 4 Q Okay. 5 And those samples that were in this facility, 6 as of 1999 when you took them, where had they been in 7 the facility? 8 A They were in a little glass cabinet, which was 9 the museum, if you like, of the research and 10 development group. 11 Q Okay. 12 And how long had they been there? 13 A Probably since the 1940s, 1950s. 14 Q Okay. 15 It was your exception that those were vintage 16 samples of Johnson's Baby Powder? 17 A They were. 18 Q Okay. 19 A And, as they were due to go to the dumpster, I 20 rescued them. 21 Q All right. 22 You took 'em home and then you just kept them 23 put away? 24 A They were -- they were locked away in the attic 25 for the last 18 years, yes.	Page 25 1 Q Okay. 2 And when I say "any talc", I'm talking about 3 any talc products sold by Johnson & Johnson; do you 4 understand that? 5 A I understand that, yes. 6 Q Right. 7 And so, because this is an important case, 8 did you go through and review all of the approximately 9 200,000 documents that were produced by J&J in this 10 case? 11 A I have reviewed many hundreds -- well, many 12 thousands of documents in the last few weeks -- 13 Q Okay. 14 A -- which pertain to this case. 15 Q Okay. 16 A Yes. 17 Q And about how long have you spent doing that? 18 A Certainly much of the last four weeks. 19 Q Now, in so far as you are not currently 20 employed by Johnson & Johnson, do you charge for your 21 time? 22 A I don't charge Johnson & Johnson. I require 23 compensation for my time from the attorneys. 24 Q Okay. 25 Is it your expectation that Johnson & Johnson

Page 26 1 will be paying the attorneys when they pay you? 2 A I would expect that, yes. 3 Q All right. 4 So it's the lawyers that pay your bill for 5 your time, your compensation, but you understand that 6 Johnson & Johnson reimburses the lawyers for that? 7 A Well, I can only guess that. If there are 8 other plaintiffs involved, then those plaintiffs may 9 also be involved in -- in relationship with the 10 attorneys. 11 Q All right. 12 What is the -- what is the rate that you bill 13 at for your preparation time and/or your testimony 14 time? 15 A It's the same rate, 300 US per hour. 16 Q And do you charge US because these are filed in 17 the United States? 18 A I charge US because it's easier for US-based 19 companies to pay in US dollars. 20 Q And so far in preparation for your testimony in 21 these four cases today, how much -- how many hours have 22 you billed? 23 A I haven't actually billed any at this point. 24 I'm expecting that there will be maybe 18 days. 25 Sixteen to 18 days. Eight hours a day.	Page 28 1 Q Right. 2 Those documents, where did those come from? 3 A There's two sources. One, I have a large 4 literature file of my own. Obviously, as a 5 toxicologist, you maintain a literature file on many 6 substances, including talc. So I've reviewed those. 7 And in addition I've reviewed those that were 8 identified to me by the Johnson & Johnson attorneys. 9 Q Okay. 10 Were those -- did the ones you looked at have 11 little Bates stamps down at the bottom? 12 A They did, yes. 13 Q Okay. 14 A Or they do, yes. 15 Q All right. 16 We'll talk about some of those documents 17 today, and if we see a document that you haven't 18 seen -- usually I'll ask you if you've seen it -- but 19 if you've seen one that you haven't seen and you need 20 additional time to review, just let me know; okay? 21 A I will indeed. 22 Q Right. 23 Now, let's talk a little bit about Johnson & 24 Johnson "company units", I call it, but I want to ask 25 you a little bit about this, how they're related.
Page 27 1 Q Okay. 2 So 16 or so hours a day times -- 3 A No, 16 days. 4 Q I mean, I'm sorry, 16 days times eight hours a 5 day? 6 A Not even I can do 16 hours a day. 7 Q Oh, I'm sure you could. 8 But to make it clear, so for 16 days, 9 approximately eight hours a day, you've been working on 10 -- 11 A On this particular case, yes. 12 Q Right. 13 A Yes, yes. 14 Q And that's all \$300 an hour? 15 A Yes. 16 Q As well as the time that you spend here today, 17 tomorrow and on if we go? 18 A That's included, I think, in the 16, 18 days, 19 yes. 20 Q Okay. 21 Now, the documents that you reviewed, was it 22 your understanding that that was also part of the 23 universe of documents that was supplied to us in this 24 case? 25 A That is my understanding, yes.	Page 29 1 So we all kind of speak in the vernacular as 2 "Johnson & Johnson", but there's various different 3 companies, such as Johnson & Johnson Consumer Products 4 Company; right? 5 A Correct, yes. 6 Q And there's, or has been, Johnson & Johnson 7 Baby Products Company? 8 A That is correct, which is a -- it's a division 9 of the Consumer Products Company. 10 Q Okay. 11 So it's not a separate company; it's a 12 division of Johnson & Johnson Consumer Products 13 Company? 14 A Currently it is, yes. 15 Q Okay. 16 A Yeah. 17 Q Was Johnson & Johnson Baby Products Company 18 ever a separate -- a separate company? 19 A No, no. It's always been part of Johnson & 20 Johnson. 21 Q Okay. 22 And then what's the relation between Johnson 23 & Johnson and Johnson & Johnson Consumer Products 24 Company? 25 A The Consumer Products Company historical name

Page 30 1 is a division of Johnson & Johnson. 2 Q Okay. All right. 3 And as you sit here today, do you know the 4 net worth of Johnson & Johnson? 5 A I don't, no. I don't. 6 Q Do you own any stock in any Johnson & Johnson 7 company currently? 8 A I have historical stock from when I worked for 9 the company, yes. 10 Q That you still have? 11 A I still have, yes. 12 Q Okay. 13 And you don't have to tell me the exact 14 number, but is it -- can you give me some ballpark on 15 how much you own? 16 A Several thousand shares, as I recollect. 17 Q Okay. 18 A Yes. 19 Q Several thousand or several tens of thousands? 20 A No, no. Several thousand. 21 Q Several thousand. All right. 22 Does Johnson & Johnson agree that baby 23 products should not be dangerous to babies? 24 A Yes, that is a statement I would agree with. 25 Q Okay.	Page 32 1 A -- dangerous ingredients in Johnson's consumer 2 products. 3 Q Okay. 4 And Johnson & Johnson agrees that baby powder 5 should never contain a carcinogen; fair? 6 A Fair. 7 Q Okay. 8 Similarly, cosmetic talc products, not just 9 designed for babies, but for instance Shower to Shower, 10 those shouldn't contain carcinogens, should they? 11 A They should not. 12 Q Okay. 13 Does Johnson & Johnson agree that cosmetic 14 talc products should never cause cancer? 15 A That is correct. 16 Q Okay. 17 A Yes. 18 Q And does Johnson & Johnson agree that baby 19 products should never cause cancer? 20 A That is correct, yes. 21 Q Okay. 22 And this might sound sort of obvious, but 23 does Johnson & Johnson agree that cosmetic talc 24 products should never actually kill their users? 25 A Yes.
Page 31 1 Does Johnson & Johnson agree that baby 2 products shouldn't contain carcinogens? 3 A That's a statement I would agree with. 4 Q If they did contain a carcinogen, does Johnson 5 & Johnson agree that it should fully disclose any 6 dangerous or carcinogenous ingredients in its baby 7 products? 8 A Well, would you define what you mean by 9 "disclose"? 10 Q Sure. Tell people who are buying the product? 11 A Okay. 12 When you buy a product, there's a label which 13 lists the ingredients. So if it's on the ingredients, 14 it's on the ingredient list. 15 Q Well, this is more of a slightly different 16 question, which is: if Johnson & Johnson were aware 17 that its baby products contained any dangerous 18 ingredient, they would disclose that on the 19 ingredients; is that fair? 20 A That's -- that's not unreasonable, if it 21 contained a dangerous ingredient. 22 Q Right. 23 You don't think it did? 24 A I don't think there's any -- 25 Q Okay.	Page 33 1 Q Okay. 2 Does Johnson & Johnson agree that baby 3 products shouldn't end up causing the death of the 4 person who used them? 5 A Yes. 6 Q Okay. 7 If Johnson & Johnson ever became aware that 8 their talc products contained anything that was 9 carcinogenous, what would be the protocol for dealing 10 with that at J&J? 11 A My feeling is that the product would be 12 withdrawn. 13 Q Okay. 14 And that means a product recall; right? 15 A Yes. 16 Q As well as a notification to the public; 17 correct? 18 A Yes. 19 Q Okay. 20 Johnson & Johnson agrees that asbestos is a 21 carcinogen; correct? 22 A Johnson & Johnson, I am sure would agree that 23 asbestos is a carcinogen, although Johnson & Johnson 24 does not sell asbestos and never has sold asbestos. 25 Q Okay. I understand.

Page 34 1 But here's the question: Johnson & Johnson 2 agrees that asbestos is a carcinogen; correct? 3 A Asbestos is a recognized carcinogen, yes. 4 Q All right. 5 And Johnson & Johnson agrees that asbestos 6 can cause the disease mesothelioma; correct? They 7 don't dispute that? 8 A They would not dispute that. 9 Q Okay. 10 Johnson & Johnson agrees there is no known 11 safe level of exposure to asbestos; correct? 12 A That is -- that is debatable, and I'll tell you 13 why. 14 Because asbestos has been -- as a 15 toxicologist, asbestos, we know, has been used in 16 public buildings, schools, brake linings, clutch 17 linings, et cetera, for many, many decades. 18 So asbestos is pretty well ubiquitous. It's 19 in the atmosphere. It's in the sidewalks. It's on the 20 streets. 21 We have -- toxicologist have never defined 22 what a safe level is. 23 Q So it would be true to say that there is no 24 known safe level of exposure to asbestos? 25 A That is correct.	Page 36 1 Q Right, and I understand that's -- that's your 2 opinion in this case. 3 But I'm asking: if there is talc containing 4 asbestos, and you're saying that's not Johnson & 5 Johnson -- I understand that -- if there is talc 6 containing asbestos, that product would be a 7 carcinogen; correct? 8 A It could be a carcinogen. 9 Again, it depends on the level. Medical 10 science has never defined what a safe level is. 11 As I said before, we've all been exposed to 12 asbestos in the last 50 years, widespread exposure in 13 the streets, the sidewalks, public buildings, and we're 14 not all falling over with asbestos. 15 So there is no doubt a safe level, but 16 science has never defined what that safe level is. 17 So there will be a level at which it is not 18 carcinogenic. We don't know what that level is. 19 Q Okay. 20 Well, then perhaps you and I can get on the 21 same page here. What you're saying is that there is a 22 general low level background of asbestos in our 23 environment? 24 A There is, indeed. 25 Q Right.
Page 35 1 Q All right. 2 Have you spoken with any of Johnson & 3 Johnson's retained expert witnesses in these cases? 4 A I have not. 5 Q All right. 6 Do you know who Micky Gunter is? 7 A No. 8 Q Do you know who Matthew Sanchez is? 9 A No. 10 I've read one of his publications, but I've 11 never met Mr Sanchez. 12 Q Okay. 13 So beyond reading a paper of his, you don't 14 know him? 15 A I do not know him, no. 16 Q Okay. 17 Do you know if Johnson & Johnson has retained 18 either of those individuals in these cases? 19 A I don't know that, no. 20 Q Johnson & Johnson agrees that talc containing 21 asbestos is a carcinogen; correct? 22 A If talc contained asbestos, it would possibly 23 be a carcinogen. 24 But Johnson & Johnson does not and has never 25 sold talc containing asbestos.	Page 37 1 And what you're saying is that there's no 2 evidence that that background level is a cause of 3 disease; fair? 4 A That is correct. 5 Q Right. 6 Setting aside background, we can agree that 7 there is no known safe level above background for 8 asbestos; correct? 9 A That's -- that, again, is a debate that 10 toxicologists will have, but it's probably -- there's 11 a -- there's got to be a point, and every individual is 12 different and we're all exposed to different materials 13 in our daily lives. 14 Some people react more strongly than others. 15 Others will not react at all. 16 So for some individuals, there could well be 17 a level above background which is hazardous, and that 18 same level would not be a hazard to other people. 19 Q Right. 20 A It's a toxicologist debate. 21 But in this particular case, when we talk 22 about talc, as I've said before, there is no asbestos 23 in Johnson's talc. 24 Q Okay, and I will -- I promise you I will ask 25 you that question; okay? We'll get to that.

Page 38 1 But on this issue that you and I are talking 2 about, toxicologists such as yourself understand that 3 people are different and there are different individual 4 susceptibilities to certain things that might cause a 5 disease; right? 6 A That's a fair comment. 7 Q Right. 8 So what might be enough to cause disease in 9 one person might not be enough to cause disease in 10 another; fair? 11 A That's -- that's a fair comment. 12 Again, it's an unknown. It's a hypothesis. 13 Q Right. 14 And to the extent that Johnson & Johnson does 15 not know of what the safe level, if any, of asbestos 16 is, if you have a product such as talc -- not your 17 talc, as far as you're saying, but somebody has talc 18 and it has asbestos in it, it would be wise to err on 19 the side of not selling that to anybody because we 20 don't know what the safe level of exposure would be; 21 correct? 22 A Again, it depends on the amount of talc. 23 You're comparing a hypothetical talc which 24 might contain asbestos. You've not defined how much 25 asbestos.	Page 40 1 which pretty well refutes that -- that assertion that 2 talc is a carcinogen at the IARC 2B level. 3 Q Now, let's talk about IARC for a moment. 4 Now, IARC is, as I said, the International 5 Agency for Research on Cancer, and you in fact applied 6 to be on their review panel for talc; correct? 7 A No. I put my name forward as an observer at 8 the IARC meeting in 2000 -- 9 Q All right. 10 A -- to observe that -- the process. 11 Q Johnson & Johnson and/or the CTFA put forward 12 your name, as well as several others; correct? 13 A Correct, yes. 14 Q And IARC -- IARC did not allow you to be an 15 adviser; correct? Or an observer, correct? 16 A Observer, correct, yes. 17 Q Okay. 18 And in your own words, it was because you 19 were "compromised" by your industry ties; correct? 20 A That is a possibility. 21 Q Okay. 22 A Yeah. Although, as an observer, you do no more 23 than sit and observe. You don't have an input or a 24 comment. 25 Q I understand, but it's -- I chose that word
Page 39 1 Is it much above background level? The kind 2 of level we breathe when we enter public buildings, 3 walk down the side walk in the street? Is it above 4 that? Is it similar to that? 5 There's a lot of hypothesis there. 6 Q Okay. 7 A It's not a question that's easily answered. 8 Q Well, you and I will try to go through that 9 with some of the documents perhaps, and that will -- 10 that might help us out. 11 But does Johnson & Johnson agree with the 12 International Agency for Research on Cancer that talc 13 containing asbestos is a carcinogen? 14 A I have read that report from 2006. 15 What the report actually said was that in the 16 case of inhalation of talc not containing asbestos, 17 there -- it is not a carcinogen. 18 What the report also says, that in a 19 particular circumstance of perineal application, there 20 is a possibility that it could possibly be what IARC 21 call a 2B carcinogen. 22 Q Okay. 23 A But -- and it is a but -- that review was put 24 together in 2006. It ignored a vast amount of 25 published data, both before and was published since,	Page 41 1 "compromised" because that's the word you used in your 2 own emails. 3 Do you agree that you stated that perhaps 4 they viewed you as being compromised because of your 5 ties to industry? 6 A I think I used the word "perhaps". 7 Q "Perhaps compromised"? 8 A Perhaps. 9 Q Okay. 10 Asbestos should never, ever be in baby 11 powder; correct? 12 A Correct. 13 Q And, in fact, that's a Johnson & Johnson 14 policy; right? 15 A Correct. 16 Q And that's been Johnson & Johnson's policy for 17 how long? 18 A Well, we've looked through some of the 19 historical -- what are called "specifications". That's 20 when you define what a product is, what's composed of, 21 what its quality standard is. 22 And certainly since the late 1940s -- I think 23 we found one going back to 1946 -- there is a 24 description of the product, what it should not contain, 25 and one of those is a description of a particle which

Page 42 1 is described as "needle-like". They use the Latin word 2 "acicular" -- which is A-C-I-U-L-A-R [sic] -- which 3 means needle-like. 4 And that was part of the requirements that it 5 should not contain, going back as far as 1946, and that 6 would describe any asbestos. 7 So in a sense, although they didn't use the 8 word "asbestos", they described the specification which 9 would avoid the use of asbestos. 10 Q So, at least going back into the '40s, it was 11 Johnson & Johnson's policy not to allow asbestos to be 12 in any talcs they sold; correct? 13 A Correct. 14 Q And, in fact, that's what Johnson & Johnson has 15 told the public, regulatory agencies and customers; 16 correct? 17 A Correct. 18 Q Johnson & Johnson has a -- I guess you could 19 say a zero tolerance policy for asbestos in its talcs; 20 correct? 21 A Correct. 22 Q And it has a zero tolerance policy for asbestos 23 minerals in its baby powder; correct? 24 A Asbestos. Correct, yes. 25 Q All right.	Page 44 1 Q Okay. So let's -- let's see if I can 2 understand this. 3 If you have tremolite, the mineral, that is 4 asbestiform, then that's asbestos; correct? 5 A If it -- if it is asbestos tremolite, it is 6 asbestos. 7 Q Okay. 8 A If it is non-asbestos tremolite, then it is not 9 asbestos. 10 Q All right. 11 So in both cases you have the mineral 12 tremolite and in one case you have it -- you have a 13 morphology or something in such a way that it is 14 asbestos, and the other you have a morphology that it 15 is not asbestos; is that right? 16 A Correct. Correct, yes. 17 Q Okay. 18 And so you use the term "asbestiform". I 19 take it that that is what it is in the asbestos form? 20 A That is a -- it's a loose definition. 21 I'm not a geologist, but it is one that some 22 people use to describe tremolite in an asbestos format. 23 Q Okay. 24 And so -- and I'm just asking Johnson & 25 Johnson's opinion on these things. So if we have
Page 43 1 Is there a difference between asbestos and 2 asbestos minerals? 3 A Well, you would have to define that. 4 Asbestos to me means asbestos. 5 Q Okay. 6 A There are several types of asbestos: 7 crocidolite can be in a form of asbestos; so there's 8 chrysotile asbestos; amosite asbestos. 9 There are various minerals that have an 10 asbestos definition. 11 Q Okay. 12 So when we use -- because we may use the term 13 "asbestos minerals" in this -- in this case, and it 14 might actually help to get our definition straight. 15 So asbestos minerals, would that include 16 tremolite? 17 A Well, that's an interesting point because many 18 of those minerals that are described as asbestos exist 19 in a non-asbestiform. 20 So you mentioned tremolite. Most of the 21 tremolite in the world, as I understand it, exists in 22 its non-asbestiform form, what geologists called 23 "massive form". 24 So very often tremolite is not asbestos 25 tremolite. It is simply non-asbestos tremolite.	Page 45 1 asbestiform tremolite, then we have asbestos; correct? 2 A That's a loose definition. Yes. 3 Q Okay, but J&J agrees with that; right? 4 A Yes. 5 Q Okay. 6 And if we have asbestiform anthophyllite, we 7 have asbestos; right? 8 A Yes. 9 Q If we have asbestiform actinolite, we have 10 asbestos? 11 A Yes. 12 Q Now, chrysotile is as asbestos; correct? 13 A Yes. 14 Q Right. 15 Antigorite would be the massive form or the 16 non-asbestos form of chrysotile; correct? 17 A That -- again, I said I'm not a geologist. But 18 that is my understanding, yes. 19 Q Okay. 20 And certainly that would be Johnson & 21 Johnson's understanding from the documents you've read; 22 correct? 23 A Yes. 24 Q All right. Okay. 25 So, just for the record, Exhibits 1 through 4

Page 46 1 are the notices in the case. 2 We're not going to look at those just yet. 3 (Exhibits 1-4 marked for identification) 4 Exhibit 5 is the first document that you and 5 I are going to talk about, sir. 6 Here's a copy for you, here's a copy for you. 7 MS FROST: Thank you so much. 8 (Exhibit 5 marked for identification) 9 BY MR PANATIER: 10 Q Sir, if you want to turn to the last page, that 11 might help you orient yourself to what this document 12 is. 13 Do you see this is authored by you? 14 A Yeah. 15 Q In -- on December 28, 2005; right? 16 A Yes. 17 Q And the title of this is The Process for 18 Qualification and Approval of a new or alternate source 19 of Cosmetic Talc; right? 20 A Yes. 21 Q Okay. 22 So one of your roles, I take it, at J&J was 23 to help govern or form the policies for the 24 qualification of new sources of talc; fair? 25 A I need to read this, if I may.	Page 48 1 which a minimum standard must be maintained on a global 2 basis". 3 That includes the US; right? 4 A Yes. 5 Q "These consist of ..." 6 And the first one is: 7 "Freedom from asbestos and amphibole 8 minerals". 9 Correct? 10 A That's what it says. 11 Q Okay. 12 Those are your words; right? 13 A They were back in 2005, yes. 14 Q All right. 15 So that applies to the US as well; right? 16 A Well, no. Let's -- let's be clear, this was 17 done in 2005 when I'd actually left the US employ. 18 I was advising an Asian company as to how 19 they would approach sourcing a new talc mine. 20 So this was not -- this was not for the US. 21 The US already had their own talc source. 22 Q I understand. 23 What I'm asking you is this principle that 24 you've stated here, that any new source of talc had to 25 be free from asbestos and amphibole minerals, was that
Page 47 1 This document was written, authored by me as 2 you say in 2005. It was done so at the request of 3 non-US affiliates if they were looking to qualify or 4 validate a mine for talc. 5 But not for the US. This was for an Asian 6 affiliate. 7 Q Okay. 8 So I'm going to ask you whether or not some 9 of these principles applied to what was going on in the 10 US. 11 So let's look at the introduction on the 12 first page. It says: 13 "Cosmetic grades of talc to be used in 14 Johnson & Johnson products must meet standards for both 15 mineralogical and microbial purity". 16 Now, that standard is a worldwide standard; 17 correct? 18 A That is, yes. 19 Q All right. 20 That applies to any products sold in the US, 21 too; correct? 22 A It does, yes. 23 Q Right. 24 And then the next highlight says: 25 "There are however certain parameters for	Page 49 1 true for the US as well? 2 A For the US, it would have to be free from 3 asbestos. 4 Q Okay. 5 A Yeah. 6 Q What about amphibole minerals? 7 A Well, let's be clear, the US already has, and 8 has had for a long time, approved sources of talc. 9 At this point in 2005, it was the J200 source 10 from the Chinese mine, which is free from asbestos. 11 The point of this document was to advise, I 12 think it was maybe an Indian or another company in the 13 Far East, as to how they should approach sourcing a new 14 talc mine, as a concept. 15 Q Okay. 16 I'm asking you sort of a more general 17 question. 18 Is it Johnson & Johnson's policy that any 19 talc it uses should be free of asbestos and amphibole 20 minerals? 21 A It's Johnson & Johnson's policy that the talc 22 should meet the CTFA specification to be free of 23 asbestos. Period. 24 Q Okay. 25 And free of asbestos means no asbestos;

Page 50 1 correct? 2 A Correct. 3 Q Right. 4 And here it's freedom from asbestos and 5 amphibole minerals. Were you separating -- did you 6 mean two different things there? 7 A I was using the term loosely to advise the 8 Asian affiliate that they should be looking for a talc 9 that was so pure that it did not only have no asbestos, 10 but it had no amphiboles. 11 Q So none of the -- even the massive type of 12 minerals -- 13 A Yes. 14 Q -- correct? 15 A Yes, correct. 16 Q And so in 2005 what you were telling these 17 other countries was that any new source of talc had to 18 have no asbestos and no asbestos minerals, or amphibole 19 minerals, which would be the massive form; correct? 20 A Correct. I was -- I was essentially doing that 21 to ensure that they were so clean they were purer than 22 pure and didn't move away from what they were doing 23 already. 24 Q Yeah. 25 And what you said was, right above that, is:	Page 52 1 (Exhibit 6 marked for identification) 2 All right, sir. Can you see at the top this 3 is an email from you to Steven Mann dated August 24, 4 2005? 5 A Yes. 6 Q All right. 7 And who's Steven Mann? 8 A He's a former employee of Johnson & Johnson. 9 He's the -- was a toxicologist in the United States 10 company. 11 Q All right. 12 If you go down to the email right below that 13 top one, or two below the top one, there's an email 14 from you, August 18, 2005, at 12:06 pm; do you see 15 that? 16 A Yes. 17 Q Right. 18 And here you're reporting to Steve: 19 "Steve, You may recollect that you suggested 20 I try to be Nominated for the Talc Group at IARC. See 21 response below. 22 As suspected, my ties and relations with the 23 Industry seem to be a reason not to use people who are 24 seen as compromised. I guess it was worth a try. 25 Regards John".
Page 51 1 "There are however certain parameters for 2 which a minimum standard must be maintained on a global 3 basis". 4 Now, is the United States part of the globe? 5 A It is. 6 Q Okay. 7 So these would be standards, for instance, if 8 a new source were located in the United States; right? 9 A Yes. 10 Q You would have sent out this exact same policy 11 to them as well? 12 A No. The United States at that time -- still 13 is -- responsible for its own advice to its own people 14 as to how you validate an alternative talc source. 15 Q I'm sorry, when I said "you", I meant J&J? 16 J&J would have had the policy of clearing any 17 mine to be clear of asbestos and amphibole minerals; 18 correct? 19 A No. J&J's policy would clear any mine to meet 20 the specification of the CTFA, which is freedom from 21 asbestos by the appropriate CTFA test methods, plus 22 others used by Johnson & Johnson. 23 Q Okay. 24 Now, all right. You can set that aside, sir. 25 This will be Exhibit 6.	Page 53 1 A Yes. 2 Q Did you write that? 3 A I did. 4 Q And it says you tried to be nominated for the 5 talc group; correct? 6 A I tried to be nominated for -- as an observer. 7 The talc working party group from IARC is 8 actually set -- it's made up of physicians, medical 9 experts, toxicologists, from several countries around 10 the world. 11 The IARC group is a subdivision of the United 12 Nations and they choose their experts from regional 13 countries, Asia, Africa, Latin America, North America, 14 Europe -- 15 Q And -- 16 A -- and they already have their experts. 17 The only additional opportunity that another 18 person can have is to be an observer in the room. 19 You're not allowed to speak or say anything. 20 You merely observe the dialogue or the process. 21 Q So here's what they say in the email below. 22 Here's what IARC says to you: 23 "Dear Dr Hopkins. 24 Thank you for responding to the 'Call for 25 Nominations' that was posted on our web site to seek

Page 54 1 the names of qualified experts for the Working Group 2 that will develop the forthcoming IARC Monograph on 3 'Carbon black, titanium dioxide and non-asbestiform 4 talc'. 5 Did I read that right? 6 A Yeah. 7 Q Okay. 8 So that's what you were applying for; right? 9 A No, I was actually -- I think that's a 10 misunderstanding. I was actually applying, as general 11 public or non-IARC listing people can be applied, to be 12 an observer. 13 Q Okay. So -- 14 A I was applying to be an observer. 15 Q But IARC apparently thought you were 16 applying -- 17 A Well ... 18 Q -- to be an expert. 19 That's what they say here; right? 20 A Well, that's what they say, but that was not 21 the case, because the IARC group already have their own 22 team of experts. 23 As I said, because it's a United Nations 24 subdivision, they have experts from Latin America, 25 Asia, North America, Europe, Africa, and they -- they	Page 56 1 "You may recollect that you suggested I try 2 to be Nominated for the Talc Group at IARC". 3 Right? 4 A Yeah. 5 Q Did you in that email say, "They misunderstood 6 what I was applying for"? 7 The same thing you just told me? 8 A Well, it doesn't say that, does it? 9 Q Okay. No. 10 A What I applied for was to be an observer. That 11 was the online application form that you could apply 12 for. 13 Q You told me perhaps they misunderstood what you 14 were applying for; right? 15 A I think the response indicates they 16 misunderstood, yes. 17 Q Did you use the word "misunderstand" when you 18 wrote Mr Mann? 19 A No, I sent him a three mail -- three-line 20 email -- 21 Q Okay. 22 A -- to say that I was not going to be involved. 23 Q Because certainly if they misunderstood your 24 whole point in applying, you would have mentioned that; 25 right?
Page 55 1 take a little group from each of those countries, each 2 of those regions. So they have their experts. 3 What they allow open, if you like, is for 4 people who've got an expertise in the field, people 5 like myself, to be an observer. 6 Q Okay. 7 Well, so -- so they misunderstood what you 8 were applying for, then? 9 A Well, I don't know what they misunderstood. 10 This letter from Mr Robert Baan, who 11 presumably is a Frenchman -- yes, he's from France -- 12 may have misunderstood. 13 It was an online application that you could 14 just put your name down to be an observer. 15 Q Okay. 16 A And that's what I did. 17 Q All right. 18 But then, when you forwarded that on the same 19 day to Mr Mann, did you tell him, "Hey look, they 20 didn't let me come observe. They thought I was 21 applying as an expert"? 22 Did you say that? 23 A What I've said is what I've said. 24 Shall I read it out? 25 Q Well, you said:	Page 57 1 A Not necessarily, no. 2 Q All right. 3 A I sent a three-line email. 4 Q Okay. 5 Now, Johnson & Johnson's zero tolerance 6 policy for asbestos. That goes back certainly to the 7 '40s, as far as you can recall; correct? 8 A That is correct, yes. 9 Q And, in fact, I think in 2007 you were asked 10 about this. 11 Zero tolerance means zero, no asbestos, 0.0 12 infinity; right? 13 A Zero means zero. 14 Q Okay. 15 There is nothing less than zero, is there? 16 A That is correct. 17 Q Okay. 18 And why has Johnson & Johnson maintained a 19 zero tolerance policy for asbestos in talc? 20 A Asbestos is not a healthy material to apply to 21 the body. 22 Q Right. 23 Asbestos could cause disease; right? 24 A Correct. 25 Q All right.

Page 58 1 And Johnson & Johnson understood, taking into 2 the caveats about individuals' susceptibility and all 3 of that, that if there was asbestos in talc, it could 4 potentially harm people; correct? 5 A It could. 6 Q All right. 7 And, in fact, Johnson & Johnson has 8 repeatedly told practitioners, the public, regulators, 9 that there is no asbestos in Johnson & Johnson talcs, 10 and that Johnson & Johnson has a policy of no asbestos 11 in talc; correct? 12 A Correct. 13 Q Okay. 14 Johnson & Johnson is not aware of any safe 15 level of asbestos inhalation for babies, is it? 16 A Well, as Johnson & Johnson has never sold 17 asbestos, I think the answer would have to be yes. 18 Q Okay. 19 A There is no safe level. 20 Q Okay. 21 A No -- 22 Q For babies? 23 A For babies. For anyone. 24 Q Okay. All right. 25 No known safe level for anyone above that	Page 60 1 So there's a widespread use by adults who are 2 not just mothers and babies. 3 Q Okay. 4 I don't dispute that there's widespread use 5 of Johnson's Baby Powder amongst lots of other people. 6 I don't dispute that. 7 I'm asking if the prime users historically 8 were mothers and babies? 9 A Again, I don't have that information. 10 Q Okay. 11 A That's a market -- a marketing story, if you 12 like, as to who's using it. 13 Traditionally, going back to the 1940s, 50s, 14 it was widely used by mothers and babies. 15 But as the product gained widespread 16 acceptance in the home, it tended to be used by adults, 17 dads, older brothers, sisters, and that's still the 18 case today. 19 Q We'll come back to that. We're just going to 20 pull a document. 21 All right. Johnson's supplied its baby 22 powder in maternity kits during the first -- starting 23 in the first half of the last century; correct? 24 A Yes, correct, yes. 25 Q Okay.
Page 59 1 general background we talked about? 2 A Yes, yes. 3 Q Okay. 4 Mothers and babies historically are the prime 5 users of Johnson & Johnson's Baby Powder; correct? 6 A That's not necessarily correct today. 7 Traditionally, mothers and babies do use baby 8 powder, but it's also widely used by adults. 9 There's certainly Johnson's Baby Powder in my 10 house. My late mother always used Johnson's Baby 11 Powder. 12 Q Mmm hmm. 13 A So it has a pretty widespread use amongst 14 adults as well as mothers and babies. 15 Q Okay. 16 What I'm asking is, historically, the main 17 users of Johnson's Baby Powder were mothers and babies; 18 right? 19 A Actually, that's not true. That is not the 20 case. 21 The market research and the people I've 22 spoken to indicates that adults also widely use 23 Johnson's Baby Powder; widely used by sports people, 24 sportsmen after running, during running, after the gym, 25 good for the feet.	Page 61 1 And those were kits for -- to hand out to 2 mothers at hospitals; right? 3 A Correct, yes. 4 Q Okay. All right. 5 This will be Exhibit 7. 6 (Exhibit 7 marked for identification) 7 Sir, this is one of those Bates stamped 8 documents. In fact, I think 99.9 per cent of the 9 documents I'm going to show you today are these Bates 10 stamped documents that we got from Johnson & Johnson. 11 Now, this one is entitled Talc: A Basic 12 Review of Its Safety and Usefulness, Professional 13 Information for Physicians, Nurses and Other Health 14 Professionals; correct? 15 A Correct, yes. 16 Q All right. 17 And if you turn, please, sir, to the first 18 flag -- I think it's got a page that says Forward; do 19 you see that? 20 A Yes. 21 Q Okay. 22 If you go to the highlighted section, it says 23 here: 24 "It is hoped that physicians, nurses, and 25 other health professionals will find this review

Page 62 1 informative, and that it will assist them in answering 2 any questions about baby powder that may be encountered 3 in course of contact with their patients and other lay 4 individuals". 5 Right? 6 A That's what it says. 7 Q So Johnson & Johnson is providing sort of a 8 packet of information to practitioners, nurses and 9 doctors, to then pass along to its patients if it 10 wishes; correct? 11 A Correct. 12 Q All right. 13 And this is something that Johnson & Johnson 14 did on a fairly routine basis, which was provide 15 information for doctors to tell their patients; right? 16 A Correct, yes. 17 Q Now, would you agree that Johnson's Baby 18 Powder, from Johnson & Johnson's perspective, was an 19 institution? 20 A Yes. 21 Q Okay. 22 And, in fact, they say as much as, correct? 23 Look at the next flag. Is that what it says? 24 A Yes. 25 Q It says:	Page 64 1 Q All right. 2 Now, if you'll turn to the next page, please, 3 sir. 4 A Next page? 5 Q Yes, sir, under Types of Talc, the highlight 6 there: 7 "In contrast, the grade of talc commonly used 8 in cosmetic and health care products today contains no 9 less than 90% talc, limited amounts of other minerals 10 and no asbestos ..." 11 And that's underlined; right? 12 A Yes. 13 Q "Johnson & Johnson talc never has been found to 14 contain asbestos and JOHNSON'S Baby Powder is 97% 15 talc". 16 Did I read that right? 17 A You did, yes. 18 Q Okay. 19 So what J&J is telling doctors and nurses is 20 Johnson's Baby Powder has never been found to contain 21 asbestos; right? 22 A That's what it says. 23 Q Okay. 24 A Yeah. 25 Q There's some other stuff highlighted there, but
Page 63 1 "History of Johnson's Baby Powder. 2 Johnson's Baby Powder is an institution". 3 Right? 4 A Yes. 5 Q If you go to the next flag, please, sir, under 6 Safety Aspects Of Talc, and you'll have to forgive me, 7 from time to time I might read something I didn't 8 highlight just for context, so I'm going to read that 9 first sentence. 10 It says: 11 "Cosmetic talc-based consumer products, 12 including baby powder, have been in widespread use for 13 generations. Yet only recently did the need arise to 14 review the effects, if any, of talc exposure, 15 especially with respect to new information on possible 16 trace contaminants and to share these findings with 17 interested health care professionals. Interest in such 18 a review has been stimulated by several developments. 19 One that was -- one was that small amounts of asbestos 20 fibers had been detected in some samples of lesser 21 known baby powders". 22 So Johnson & Johnson is bringing up the fact 23 that perhaps there was asbestos detected in other 24 people's baby powders; right? 25 A That's what it says.	Page 65 1 for our benefit I'm going to skip that. 2 Go to the last flag. 3 Again, there it is reiterated in the bullet 4 points. It says that Johnson's Baby Powder contains no 5 asbestos; right? 6 A That's what it says, yes. 7 Q All right, and that's what you're telling us 8 here today; correct? 9 A Correct, yes. 10 Q All right. You can set that aside, sir. 11 Okay. The next one is Exhibit 8. There you 12 go. 13 (Exhibit 8 marked for identification) 14 All right, sir. 15 This is entitled Grantham Talc Comprehensive 16 Report; right? 17 A That's the title of the document, yes. 18 Q Yes. 19 It's on the second page, if you go to the 20 second page, you can see it's marked -- go back a 21 couple of pages. One more page. So we can date this 22 thing. 23 It's marked Central File March 4, 1971, 24 Received on the stamp; correct? 25 A Yes.

Page 66 1 Q All right. 2 They just have some background information in 3 here, but I want to go ahead and turn to the page at 4 the bottom. It's going to end in Bates 8128. 5 A Yeah. 6 Q All right. 7 Now, this is a report where Johnson & Johnson 8 is looking at evaluating Grantham talc; correct? 9 A That would appear to be the case, yes. 10 Q Now, why in '71 was Johnson & Johnson 11 evaluating Grantham talc? 12 A Hypothetically, I can say that they were 13 probably looking for an alternative source of talc to 14 the talc they were currently using. 15 Q Okay. 16 So go back to then -- you're on the right 17 page. You can see there there's a sentence that says: 18 "It should be pointed out that while minor 19 differences were detected by the laboratory in the 20 lubricity and whiteness of Grantham talc with respect 21 to Vermont and Italian talcs, the differences did not 22 appear to be significant relative to consumer 23 acceptance by the prime users, mothers of infants". 24 Did I read that right? 25 A You did, yes.	Page 68 1 decades that when talc powder is used on an infant or a 2 child, they will inhale some of that talc into their 3 lungs? 4 A There is always the possibility that, when talc 5 is used, we will inhale talc. 6 Q And it's not really a possibility; right? 7 A Yes. 8 Q I mean, it happens? 9 A It happens, yes. 10 Q Okay. 11 And it doesn't just go for children and 12 babies. It goes for -- 13 A Adults. 14 Q -- an adult who's using it too; right? 15 A Yes. 16 Q Okay. 17 Does Johnson & Johnson agree that consumers 18 have trusted it to sell safe products for them and 19 their babies for over a hundred years? 20 A That's a fair statement, yes. 21 Q Okay. 22 Sounds like something Johnson & Johnson would 23 say; right? 24 A It's the kind of thing that Johnson & Johnson 25 would say because it's a fact.
Page 67 1 Q Okay. 2 So, at least in '71, Johnson & Johnson 3 understood that the prime users of its Baby Powder were 4 the mothers of infants; right? 5 A Yes. 6 Q Okay. 7 Go ahead and then turn to the page, at the 8 top it's marked 19, at the bottom it's 8143. 9 There again, Consumer Test: 10 "Grantham talc composite lot #1 was consumer 11 tested against Vermont and Italian talcs. The object 12 of the test was to determine if the prime JOHNSON'S ... 13 Baby Powder users, mothers of infants, could perceive 14 any difference in Baby Powder from the various talc 15 sources". 16 So again that reiterates that the prime 17 users, from the perspective of Johnson & Johnson, at 18 least in 1971, were mothers of infants; right? 19 A That's what it says, yes. 20 Q Right. 21 You don't dispute that, do you? 22 A I don't dispute that. 23 Q All right. All right, sir. You can set that 24 aside. 25 Sir, Johnson & Johnson has understood for	Page 69 1 Q Okay. 2 That its consumers trusted it to sell safe 3 products; correct? 4 A Consumers do trust to sell safe products, yes. 5 Q Right. 6 Johnson & Johnson understands that its 7 customers trust Johnson & Johnson to sell products that 8 aren't dangerous; right? 9 A That's correct, yes. 10 Q And Johnson & Johnson understands that its 11 customers count on it to objectively test their 12 products for the presence of anything dangerous; right? 13 A Correct, yes. 14 Q Okay. 15 A baby can't take precautions if a product 16 used on them is harmful, can it? 17 A Correct, yes. 18 Q Right. 19 The baby is relying on the mother and father 20 usually; right? 21 A Yes. 22 Q Sometimes even a sibling; right? 23 A Yes. 24 Q And mother and father, and even siblings, are 25 relying on Johnson & Johnson to tell them if there's

Page 70 1 any hazards with the product; correct? 2 A Correct, yes. 3 Q All right. 4 It's essential that those products be safe 5 not only for the mother and father, but for the baby, 6 who is incapable of protecting him or herself; correct? 7 A Correct, yes. 8 Q Agree that it would be a betrayal of that trust 9 to sell products to people and their babies that it 10 knew were harmful? 11 A It would, yes, yes. 12 Q Okay. 13 Agree it would be a betrayal of that trust to 14 sell products to people and their babies that it knew 15 contained asbestos? 16 A That is correct, yes. 17 Q Okay. 18 Do you want your customers and users of your 19 baby powder and talc products to know the truth about 20 your products? 21 A Correct, yes. 22 Q Okay. 23 And has Johnson & Johnson always told the 24 truth to consumers and the public about its baby powder 25 and talc products?	Page 72 1 A Historically, there are clinical studies which 2 show that there is a benefit, and this going back, way 3 back into the pre-war time -- that there was a benefit 4 to using baby powder to help prevent diaper rash, yes. 5 Q All right. 6 We'll talk about some of the internal 7 documents that J&J has there, but the first thing you 8 brought up was the connection between mom and baby; 9 right? 10 A Yes. 11 Q In that time where -- and I'm using "mom" but, 12 as the father of a three-year-old, it's dads too. I'm 13 sure you're aware of that. 14 But a parent changing baby. It is Johnson & 15 Johnson's opinion that the parent and the baby, their 16 connection is increased if they're changing a diaper 17 and Johnson's Baby Powder is added to the mix, as 18 opposed to just changing a diaper with no baby powder? 19 A Adding -- based on what I said a few minutes 20 ago, when Baby Powder is used as part of the diaper 21 change routine, there is an element of touch between 22 mother and baby, or father and baby, and that element 23 of touch is recognized by medical science as being of 24 value to the baby. So touch is important. 25 The value off preventing diaper rash is also
Page 71 1 A That is my belief, yes. 2 Q Right. 3 Now, the talc products -- I think we can do 4 this generally, but cosmetic talc products and baby 5 powder products, as sold by Johnson & Johnson, have no 6 medicinal value; correct? 7 A It depends how we define medicinal. 8 Historically, the bond between a mother and a 9 baby is known by medical science to be reinforced by 10 touch and massage, and certainly baby powder does that. 11 The second benefit, a physiological medicinal 12 benefit traditionally with diapers is that when babies 13 wore the old-fashioned cloth diapers particularly you 14 get chafing, particularly when the diaper is wet, and 15 by using baby powder or powder on the diaper area, then 16 you absorb that water. 17 And because talc has a certain property of 18 being what we describe as lubricious, where one talc 19 particle slides over another, it acts as a dry 20 lubricant to prevent chafing of the baby's skin by the 21 diaper. 22 So in a sense it's not unreasonable to say 23 there is a medical, dermatological skin benefit. 24 Q Is that something that J&J has actually studied 25 and proven?	Page 73 1 important. 2 So there is a value in using baby powder at 3 the time of changing a diaper. 4 Q All right. 5 I guess what I'm getting at is, is Johnson's 6 -- is J&J saying that there is somehow more of a touch 7 and a relationship with a parent and their child if 8 they have Johnson & Johnson's Baby Powder there, as 9 opposed to if they don't have it there? And that's 10 something J&J has looked at? 11 A There is extensive research in the topic of 12 bonding between parent and child, and use of baby 13 powder, baby lotion, those kind of products enhance 14 that bonding experience, and that's well recognized by 15 medical science. 16 Q Right. 17 And is that bonding experience somehow not 18 there if they're just changing a diaper and touching 19 the baby and there's no powder? 20 A Well, if you're not using powder or you're not 21 using lotion or cream, then you are shortening the 22 process, and so the amount of touch, the amount of 23 bonding is severely curtailed. 24 Medical science recognizes that touch and 25 bonding is actually really quite important for baby's

Page 74 1 development. 2 Q I don't think anybody disagrees that touch and 3 bonding is important. 4 What I'm saying is can Johnson & Johnson 5 point to any sort of science -- you're a scientist; 6 right? 7 A Yes. 8 Q Can you point to any science that says regular 9 diaper changing has this amount of touch and this 10 amount of bonding, but if you add powder it's enhanced; 11 there is more of it. 12 Is there any actual science on that, sir? 13 A The science, if you were to do what you might 14 call a clinical trial, like you would a drugs trial or 15 what have you, no, you're not going to find that kind 16 of science. 17 But it is what we call "empirical science", 18 whereby, over generations, people have shown that 19 bonding is important to the relationship between a 20 mother and a baby, and bonding is enhanced by the time 21 we spend doing that diaper change. 22 You're going to spend longer if you use a 23 baby lotion or a baby powder or a baby cream. That 24 whole process is going to take longer. 25 So the touch between mother and baby, or	Page 76 1 Q And you would immediately tell the public who 2 was buying the product; correct? 3 A Yes. 4 Q Okay. 5 This will be Exhibit 9. 6 (Exhibit 9 marked for identification) 7 Right, sir. This is a Johnson & Johnson 8 document; correct? 9 A Yes. 10 Q All right. 11 It's dated January 18, 1974, and the subject 12 is Talc/Asbestos, Meeting with Commissioner Schmidt, 13 FDA; right? 14 A Yes. 15 Q Now, Johnson & Johnson met with the FDA a lot; 16 right? 17 A They did, yes. 18 Q They sent articles and letters to the FDA quite 19 a lot, especially during the 70s; right? 20 A Yes. 21 Q Okay. 22 And you can see this is a memo about a 23 meeting with the FDA, and you can see the attendees for 24 the FDA were -- looks like there were four of them, and 25 then for Johnson & Johnson there were three
Page 75 1 father and baby, is going to be -- take longer, and it 2 will be enhanced. 3 So the bonding experience, through touch, is 4 enhanced by the time you're taking using baby powder, 5 baby lotion, baby cream. 6 Q So it's the time that enhances the parental and 7 child relationship? It's not the product? 8 A Well, the product is the facilitator for the 9 time. 10 So if you were not using baby lotion, baby 11 powder, baby cream, then you would finish the process 12 in a much shorter period of time. 13 Q Okay. 14 So it's the time? 15 A It's the time. 16 Q Okay. 17 A But using baby powder, baby lotion as the 18 facilitator to extend that time. 19 Q Okay. All right. We'll talk about some of 20 those claims. 21 You already told me that Johnson & Johnson's 22 policy would be that if there was ever any asbestos in 23 any of their talcs that they found, they would 24 immediately recall it; correct? 25 A Correct.	Page 77 1 individuals; right? 2 A Correct. 3 Q Okay. 4 So this is sort of the minutes of the meeting 5 that Johnson & Johnson took, or a memo about the 6 meeting; right? 7 A Yeah. 8 Q Okay. 9 If you turn to the second page, I think you 10 might be there -- 11 A Yeah. 12 Q -- it starts with a paragraph called Dr 13 Eiermann [sic]. 14 Now, Dr Eiermann at this point was with the 15 FDA; true? 16 A Yes. 17 Q And if you go to the front page, it says Dr 18 Eiermann was there, he was present, Director, Division 19 of Cosmetics Technology at the FDA; right? 20 A Yes. 21 Q But he was also a former employee of Johnson & 22 Johnson in Brazil; true? 23 A Yes. 24 Q Okay. 25 Now, on the second page, it says in that

Page 78 1 fourth paragraph, the big paragraph: 2 "Dr Eiermann said that his main interest at 3 this time is to find what level of dust exposure occurs 4 in the process of dusting a baby and that they would 5 like to use the data to calculate allowable asbestos 6 using 5 fibers per ml ([the] OSHA limit) for safe 7 exposure in the mines". 8 Did I read that right? 9 A You did, yes. 10 Q Okay. 11 "We promised to provide a report on the talc 12 dust exposure of babies. We pointed out that the data 13 we have is based on exaggerated dusting of a whole can 14 of baby powder and that the amount generated, namely 15 345 mg/m3 may be excessive. We said that we are 16 currently attempting to make the same calculation he 17 proposed [in] ... the data. Our very preliminary 18 calculation indicates that substantial asbestos can be 19 allowed safely in a baby powder". 20 Did I read that right? 21 A You read that right. 22 Q So in 1974 in January, Johnson & Johnson tells 23 the FDA that, based on its calculations, a 24 substantial -- substantial asbestos can be allowed 25 safely in a Baby Powder, right?	Page 80 1 and that was 1974 -- it was a very long time ago -- was 2 that that was their opinion at that time, based on the 3 permitted level of asbestos approved by OSHA in mines. 4 Q Mmm hmm. Okay. 5 A But, again, hypothetical because there is not, 6 never has been, any asbestos in baby powder. 7 Q Right. 8 Hypothetical, perhaps, sir, according to you, 9 but to me it's confusing because -- because if there's 10 no asbestos in Johnson's Baby Powder, then it's odd 11 that Johnson & Johnson would be telling the FDA that 12 substantial asbestos can be allowed safely in baby 13 powder. 14 Don't you think that's a little odd? 15 A It's not something that I would write, but 16 nowhere does it say Johnson's Baby Powder. 17 Q Ah. 18 A It's talking about baby powder in the generic 19 concept. 20 Q Got it. So they're talking about other 21 people's, maybe? 22 A Maybe, but, again, I cannot speak for what 23 someone wrote in 1974. 24 It was historical. It was a comment that 25 they made, a fly away comment, very preliminary
Page 79 1 A That is what is written by a member of the 2 medical department at Johnson & Johnson. 3 It's certainly not something that would be 4 considered today. 5 Q Well, it was being considered by J&J in '74; 6 right? 7 A It looks like that, but it's certainly not 8 something that we would ever consider, for the simple 9 reason there is not, never has been, any asbestos in 10 Johnson's Baby Powder. 11 Q So there's never been any asbestos in Johnson's 12 Baby Powder, yet Johnson & Johnson is telling the FDA 13 that a substantial amount of asbestos can be allowed 14 safely in baby powder; correct? 15 A Well, what it says: 16 "Our very preliminary calculation indicates 17 that ... asbestos can be allowed safely in ... baby 18 powder". 19 Q You skipped a word. 20 A I'll read it again: 21 "Our very preliminary calculation indicates 22 that substantial asbestos can be allowed safely in a 23 baby powder". 24 Q Right. 25 A What -- my guess is what these guys are saying,	Page 81 1 calculation. 2 It's not something that would be considered 3 today, and certainly, as the company back in '74 did 4 not have asbestos in baby powder, it was hypothetical 5 anyway. 6 Q Sure. 7 They didn't say this was hypothetical, 8 though, did they? 9 A No, but I'm saying that's hypothetical because 10 we did not -- the company never had asbestos in baby 11 powder, even going back to 1974. 12 Q I understand, and we're going to get to the 13 issue of asbestos in baby powder. 14 But let's look at who wrote this. 15 Now, you reviewed, you said, thousands of 16 documents; right? 17 A Yes. 18 Q You spent four weeks doing it? 19 A Yes. 20 Q So you know this is Gavin Hildick-Smith? 21 A Yes. 22 Q And Dr Nashed; correct? 23 A That's what it says, yes. 24 Q Okay. 25 And those were two people who were very

Page 82 1 active in the talc issue, especially with asbestos, in 2 the 1970s; correct? 3 A They were, yes. 4 Q And Mr Hildick-Smith, was he over here in Great 5 Britain? 6 A He was based in the United States. 7 Q Okay. 8 Do you know if he was British? 9 A He was -- he'd originally qualified in the UK 10 and emigrated to the US. 11 Q I just saw a reference to that. That's why I'm 12 asking. 13 Now, go ahead and turn to the page that is 14 marked 3 at the top; okay? 15 A Yes. 16 Q There's a highlight there and I've asked you 17 about this, and it appears it was the policy then. 18 "Dr Fuller stressed Johnson & Johnson's 19 policy of full co-operation with [the] FDA and that if 20 the results of any scientific studies showed any 21 question of safety of talc, Johnson & Johnson will not 22 hesitate to take it off the market". 23 Right? 24 A Yes. 25 Q Okay.	Page 84 1 And then later they say that if there was an 2 issue, a question of the safety of talc, they would 3 pull it off the shelves, if it was Johnson & 4 Johnson; right? 5 A Yes. 6 Q Okay. All right. You can set that aside, sir. 7 If it turns out that there was asbestos in 8 Johnson & Johnson talcs that got sold and Johnson & 9 Johnson knew it, then that means they've been lying any 10 time they said it didn't have asbestos in it; right? 11 A That would appears to the case. 12 Q Okay. 13 Now, did Johnson & Johnson ever reject a lot 14 of talc because it had asbestos in it, because asbestos 15 was found? 16 A I'm not aware that that's ever been the case. 17 Q Right. 18 Now, let's talk generally about some of these 19 talc sources, and we'll get a little bit more specific 20 into it. 21 But tell me the years, and let's start with 22 '46, and then we're going to go back because, correct 23 me if I'm wrong, but pre-46, the sources of talc sort 24 of jumped around a little bit; is that fair? 25 A That's my understanding, yes.
Page 83 1 Now, let's put that together with what it 2 said on the previous page: 3 "Our very preliminary calculation indicates 4 that substantial asbestos can be allowed safely in a 5 baby powder". 6 So if that was their opinion then, they 7 wouldn't have any reason to pull it off the shelf 8 because it wouldn't be unsafe, even if it had a 9 substantial amount of asbestos; correct? 10 A Okay. You're conflating the word Johnson & 11 Johnson, and Johnson & Johnson's policy -- you're 12 conflating that with the generic concept of a baby 13 powder. 14 Nowhere does it on the previous page say that 15 Johnson's Baby Powder has asbestos, and nowhere does it 16 say that substantial asbestos can be allowed safely in 17 Johnson's Baby Powder. 18 Q I understand, but what they've said is they've 19 set the level of what could be safe. 20 Hypothetically, what could be safe is 21 substantial asbestos in baby powder, according to them, 22 in '74; correct? 23 A That was an opinion written by two -- two 24 executives, yes. 25 Q Right.	Page 85 1 Q Okay. All right. 2 There was a war, so they had to change 3 sources? 4 A Yes. 5 Q And so forth? 6 A Yes. 7 Q Right. Okay. 8 We've got a document on that. 9 But let's start in '46. In '46, after the 10 war, what sources of talc was Johnson & Johnson using? 11 A It was using -- in the United States, it was 12 using the, what's called grade 00000 from the Val 13 Chisone mine in Italy. 14 Q Okay. 15 So it was using Italian 00000 talc? 16 A Yes. 17 Q Now, that's also been referred to as 1615 AGIT 18 later on in years; correct? 19 A That may be the case, yes. 20 Q Okay, and we'll talk about that later on. 21 A From the Val Chisone mine, yes. 22 Q Right. 23 A Yes, yes. 24 Q Ever use any Italian talc from any other mine, 25 other than the Val Chisone mine?

Page 86 1 A No. 2 Q Okay. 3 When did it use Italian talc until? 4 A Approximately 1967. 5 Q Right. 6 So in all products made in the United States, 7 Johnson & Johnson was using Italian talc from '46 to 8 '67? 9 A Correct. 10 Q Right. 11 Then in '67, what happens? 12 A Okay. The company had already purchased a mine 13 in Windsor, State of Vermont, and that was being worked 14 up. 15 So from '67, '68, the talc was started from 16 the Windsor mine, grade 66. 17 Q All right. 18 So Vermont talc starting in '66, '67? 19 A Sixty-seven, '68. 20 Q Okay. 21 For what products? 22 A For baby powder products and Shower to Shower. 23 Q Right. 24 Were there any products that were still using 25 Italian talc at that point?	Page 88 1 to 'em, but -- throughout the '70s and even into the 2 '80s, discussing material specifications for Italian 3 talc. 4 Why would there be a material specification 5 for Italian talc, say, in 1980? 6 A My understanding was that there was at one 7 short point a mine strike at the Vermont mine, and the 8 company needed to substitute for a period of a few 9 weeks or a few months an alternative talc, because the 10 mine was on strike in Vermont. 11 Q Okay. 12 A So there was a need to revert back to the 13 Italian talc. 14 Q All right. 15 And, again, we will talk about any time there 16 was an exception, and we acknowledge there were 17 exceptions. 18 But from '67 until approximately 2003, the 19 main talc being used was Vermont talc in all products? 20 The main talc? 21 A That is correct, yes. 22 Q And then in '03 it becomes Chinese Guang Xi 23 talc? 24 A That is correct, yes. 25 Q All right.
Page 87 1 A There would be a phase over. When you have 2 products, you'll still have a phase over. 3 So my belief is that there was a little bit 4 of some of the Italian talc still being used up. 5 Q In all the products or in certain products? 6 A From my recollection, I think it was Shower to 7 Shower. 8 Q Okay. 9 So your recollection would be that the baby 10 powder, they went immediately in '67 from Italian to 11 Vermont, and in the Shower to Shower, they used up the 12 rest of the Italian that they had? 13 A That is my recollection. 14 But, for the record, I would need to see the 15 documentation to prove that. 16 Q That's fair. 17 We're going to talk about your recollection 18 about the sources, and then we'll look at some 19 documents; okay? 20 A Yeah. 21 Q But just to get a general framework of the 22 years. 23 A Yeah, that's generally, yes. Yeah. 24 Q Okay. 25 Now, I've seen some documents, and we'll get	Page 89 1 Does Johnson & Johnson agree that the Italian 2 mine and the Italian talc that Johnson & Johnson 3 received here in the States -- in the States -- was 4 regularly contaminated with tremolite? 5 A It is recognized that in some cases trace 6 quantities of non-asbestos tremolite has been located. 7 The odd fiber in the Italian talc. 8 But in no cases was there any actual asbestos 9 present in the Italian talc. 10 Q Well, let's be clear, if it was a fiber, it was 11 asbestos? 12 A Perhaps I misused the word. 13 A particle of tremolite has occasionally been 14 detected. Very, very occasionally. 15 But the quality of the mining is such that 16 the mining area avoids any tremolite deposits. 17 Q All right. 18 So we shouldn't regularly see any tremolite; 19 right? 20 A You would never see any asbestos tremolite. 21 Q Meaning a fiber shape; right? 22 A Correct. 23 Q Okay. 24 Fibrous tremolite would be asbestos; correct? 25 A I'm not a geologist, but my understanding is

Page 90 1 that if tremolite was present in a certain form, which 2 is described as non-massive, it would be asbestos. 3 Q Okay. 4 And I'm just asking Johnson & Johnson's 5 policy, so I have to kind of understand Johnson & 6 Johnson -- 7 A Johnson & Johnson's policy is that there is 8 a -- what we call a specification for the quality of 9 the product. 10 That specification follows the 11 requirements -- what was termed the Cosmetic Toiletry & 12 Fragrance Association, CTFA, which is freedom from 13 asbestos. 14 And with that policy and that specification 15 comes a series of test methods to ensure that the 16 product is free from asbestos. 17 Q All right. 18 A X-ray diffraction, optical microscopy, 19 transmission electron microscopy. 20 So there are methods to determine the absence 21 of asbestos. 22 Q Okay. 23 And those were the methods that are 24 prescribed by the CTFA? 25 A The CTFA test method prescribes x-ray	Page 92 1 We'll talk about that one a little bit later, 2 and forgive me if we do jump around a little bit. Some 3 of these topics sort of crop up, but we'll talk about 4 CTFA J4-1 a little bit later. 5 Johnson & Johnson agrees that, obviously 6 before you can have a fiber of asbestos or a fiber of 7 tremolite or anthophyllite or whatever you're talking 8 about, you have to have the mineral there first; right? 9 You can't have asbestos without the asbestos 10 minerals; true? 11 A True. 12 Q Okay. 13 MS FROST: Chris, we've been going close to 14 an hour. 15 MR PANATIER: That's fine. Let's take a 16 break now. 17 MS FROST: Does that work? 18 MR PANATIER: Yep. 19 THE WITNESS: Yeah, it's an hour and 20. 20 (Off the record at 11:38 am) 21 (On the record at 11:50 am) 22 BY MR PANATIER: 23 Q Right, sir, I just want to back up real fast to 24 the document that we were talking about, the memo from 25 '74 where Johnson & Johnson is reporting back on a
Page 91 1 diffraction and polarized light microscopy. 2 But in addition Johnson & Johnson adds some 3 additional tests, such as infrared and transmission 4 electron microscopy as a double check. 5 Q Okay. We'll get into all those. 6 CTFA is who? 7 A CTFA, it's the trade association of all the 8 cosmetic companies. It stands for the Cosmetic 9 Toiletries & Fragrance Association. 10 It has in recent years changed its name to 11 the Personal Care Products Council. 12 Q Right. 13 It used to be the CTFA and now it's the PCPC? 14 A Correct, yes. 15 Q Right. 16 And so when you talk about the CTFA 17 specification for absence of asbestos in talc, you're 18 talking about CTFA J4-1? 19 A Correct, yes. 20 Q And that started in March of 1976; correct? 21 A The final version was published at that point, 22 yes. 23 Q It's still in effect today; right? 24 A It is still in effect today, yes. 25 Q Okay.	Page 93 1 meeting with the FDA, and they have told the FDA that 2 their very preliminary calculation indicates that 3 substantial asbestos can be allowed safely in a Baby 4 Powder. 5 Now, you've told me that that's hypothetical 6 because, of course, in your opinion, Johnson & Johnson 7 never had asbestos in their baby powder. 8 But many other companies were selling baby 9 powders; correct? 10 A Other companies sell baby powder, yes. 11 Q Right. 12 And do you know whether or not the FDA had 13 the same confidence that other companies didn't have 14 asbestos in their baby powders? 15 A I don't know. I cannot speak for FDA. 16 I can speak for Johnson & Johnson, but I 17 cannot for FDA and what their views were. 18 Q But to the extent that the FDA was evaluating 19 other talcs that may or may not have asbestos in them, 20 the information they were getting from Johnson & 21 Johnson was substantial asbestos can be allowed safely 22 in a baby powder; correct? 23 Those are their words; right? 24 A They are their words, but you need to see it in 25 the context, the context being that if FDA permit

Page 94 1 certain levels under OSHA in employment places, then 2 those particle levels would not be dissimilar to what 3 you would say would be acceptable in a home 4 environment. 5 But that's based on the OSHA categorization, 6 which is a US government agency. 7 Q Okay. 8 A It's a hypothetical comment, anyway. 9 Q Well, in your opinion, because, in your 10 opinion, Johnson & Johnson didn't have asbestos in its 11 talc; right? 12 A That is correct, yes. 13 There is not and never has been any asbestos 14 in Johnson's talc. 15 Q It would not be hypothetical if in fact there 16 was asbestos in Johnson & Johnson's talc; right? 17 A It could be hypothetical, and let me explain 18 why. 19 If you're using the OSHA limit, which is the 20 US government approved standard at that time for 21 employees in a factory or a mine, if you're saying that 22 a certain level is acceptable, then it is possible to 23 say, well, let's translate that data into a consumer 24 product. 25 And UFDA, if you are looking at other	Page 96 1 through the use of the OSHA permissible exposure 2 limits? 3 A I'm not aware of any guidelines that would 4 facilitate that. 5 Q All right. 6 And does Johnson & Johnson understand that 7 OSHA permissible exposure limits were designed to help 8 prevent the disease asbestosis, but not cancers? 9 A Correct, yes. 10 Q Okay. 11 Now, you said before we took our break that 12 sometimes there was, and correct me if I'm wrong, but 13 sometimes there was -- there might be tremolite in the 14 ore that Johnson & Johnson used; correct? 15 A What I said was that in the Italian mine the 16 audit of the mine indicated that in some of the 17 non-talc areas, the non-talc parts, there was trace of 18 tremolite. 19 Q Okay. 20 And so the Italian ore that made it back to 21 Johnson & Johnson for use in its products would not 22 have contained any tremolite, then? 23 A It would not have contained asbestos tremolite. 24 Q Okay. 25 Well, I'm asking tremolite. Would it have
Page 95 1 consumer products, you might want to think about using 2 that as the basis to evaluate. 3 It's -- again, it's hypothetical, but it's 4 just an individual's comment. It's not something that 5 would -- I would see personally as being valid today. 6 Q Well, what we learn about the policy of a 7 company is we evaluate the comments of its individuals; 8 right? 9 A Yes. Past individuals in this case, yes. 10 Q There is no giant Johnson & Johnson robot that 11 takes into account all of the people's opinions and 12 then speaks for the company, is there? 13 A No, there is -- what you have there is a letter 14 where two individuals have made a comment. 15 Q Okay. 16 A Or at least one individual. Two individuals 17 have signed it. 18 Q Now, let me ask you this question. 19 Johnson & Johnson understands that OSHA 20 limits were workplace exposure limits put in place for 21 asbestos in the workplace; right? 22 A Correct, yes. 23 Q Is Johnson & Johnson aware of any grounds, 24 whether in government or science, to try and evaluate 25 the safety of a consumer product to be used on babies	Page 97 1 contained tremolite, the mineral? 2 A It might have done, if it had not been 3 selectively removed at the mine. 4 Q Was it supposed to have been selectively 5 removed at the mine? 6 A Part of the mining process is that the miners 7 operate in the talc areas and if they see rock that is 8 not talc, then they are required to remove it. 9 Q Okay. 10 Did Johnson & Johnson have at any time an 11 internal limit on how much of the massive tremolite or 12 other amphiboles could be allowed in the ore? 13 A I've not seen that as part of the requirement. 14 The requirement was that the product should 15 be at the specification of the CTFA, which is asbestos 16 free. 17 Q Well, let's be clear, the CTFA J4-1 requirement 18 came out in '76; right? 19 A Correct, yes. 20 Q So before '76, okay, you said that it was your 21 expectation that Johnson & Johnson never had asbestos 22 in any of its products. 23 Well, let's talk about the minerals; okay? 24 Before '76, what was Johnson & Johnson's 25 policy on the allowance, or not, of asbestos minerals

Page 98 1 in the non-massive form in the ore? 2 A The requirements going back to the 1940s was 3 that the product should be free from needle-like 4 particles, which would have included asbestos. 5 So although not using that name, asbestos, 6 they were described as needle-like or acicular 7 particles. 8 Q Right. 9 A Which would have included asbestos, and the 10 product was required to be free from such particles. 11 Q Did Johnson & Johnson have a limit on the 12 amount of tremolite, the mineral or anthophyllite, the 13 mineral, or actinolite, the mineral, in the ore that it 14 purchased? 15 A Back in the -- back in the '40s, '50s, that 16 definition was never given to those minerals. They 17 were simply described as "absence of needle-like 18 particles", which would have included any an asbestos 19 type particles. 20 Q Has Johnson & Johnson ever found asbestos 21 particles in its source talc? 22 A Not in the source talc from the Val Chisone or 23 any of the other mines, no. 24 Q Okay. 25 So Johnson & Johnson has never found asbestos	Page 100 1 detect or not detect. 2 Essentially, where you have non-detect, it 3 means there's none there. 4 Q Okay. 5 Is that what non-detect means? There's none 6 there? 7 A It means there's none there by that particular 8 test method. 9 Q Right. 10 So let's just use a -- I'm not a scientist, 11 so I'm going to use sort of a very basic example. 12 If we wanted to know whether or not I had 13 bacteria on my skin -- now, human beings are covered in 14 bacteria; right? 15 A Yes, you are. 16 Q In and out? 17 A Yeah, yeah. 18 Q Right. Okay. 19 But if I wanted to know if there was bacteria 20 on my skin, I could use a tool called a magnifying 21 glass and I could look at my skin and I would be 22 non-detect for bacteria; right? 23 A Ah, that's the wrong tool. 24 Q Right. It is the wrong tool. 25 A Yeah.
Page 99 1 in any of its source talcs? 2 A Correct. 3 Q Meaning tremolite, actinolite, anthophyllite or 4 chrysotile in any of its ores; correct? 5 A In the asbestos form of those minerals, 6 correct. 7 Q Okay. 8 No asbestiform or asbestos form chrysotile, 9 tremolite, actinolite or anthophyllite in any of its 10 ores? 11 A That is correct. 12 Q Ever? 13 A That is correct. 14 Q Has Johnson & Johnson ever found any asbestos 15 or asbestiform minerals in any of its products -- 16 finished products? 17 A They have not. 18 Q Never? 19 A No, never. 20 Q As a scientist, you understand that there is a 21 difference between the terms zero and non-detect; 22 correct? 23 A It is a scientific phrase, yes. 24 Non-detect means it's non-detectable, and, as 25 a scientist, you use test methods which allow you to	Page 101 1 Q But if I used that tool, it's still a tool to 2 make things bigger, right, and to be able to see things 3 better; right? 4 A Yeah. 5 Q But it would be the wrong tool to try to see 6 bacteria on my skin, because it doesn't have a level of 7 sensitivity that would allow me to see it; fair? 8 A That is correct, yes. 9 Q Okay. 10 I would need probably a skin sample in at 11 least a light microscope; right? 12 A You would, yes. 13 Q Okay. 14 And if I wanted to see what was going on 15 deep, deep, deep within that bacteria, I might have to 16 jump to a transmission or a scanning electron 17 microscope; right? 18 A You would, yes. 19 Q All right. 20 So it would be wrong to say there was no 21 bacteria on me because it was non-detect by a 22 magnifying glass; isn't that true? 23 A Yes, you would be using the wrong test method. 24 Q Right. 25 So if you want to know whether or not a

Page 102 1 contaminant of something like talc is really there, you 2 got to use -- you got to select the right tool; right? 3 A You do indeed, yes. 4 Q Okay. 5 A Yeah. 6 Q Does Johnson & Johnson agree, generally 7 speaking, that children and babies are more susceptible 8 to carcinogens than adults? 9 A There's no evidence for that. There's no 10 evidence for that. 11 The immune systems that we all have are 12 pretty equally developed from the age of three months 13 upwards. 14 Q So it's Johnson & Johnson's opinion -- not just 15 your opinion -- that there's no evidence that 16 individual children and babies are more susceptible to 17 carcinogens? 18 A I've not seen that evidence. I don't think 19 anyone's ever done that -- that kind of research. But, 20 yep. 21 Q Okay. 22 I just want to ask you about a few papers. 23 Have you read a paper by Arul from 1977, 24 Mesothelioma from asbestos exposure in childhood? 25 A No.	Page 104 1 A No. 2 Q What about Wild and Kleinjans in 2003, Children 3 and increased susceptibility? Have you read that? 4 A No. 5 Q What about Miller in 2004, Environmental 6 hazards in the childhood-- in childhood? 7 Have you read that? 8 A No. 9 Q What about Samet in 2004, Risk assessment and 10 child health? 11 A No. 12 Q What about Barton -- 13 MS FRAZIER: Can you just stop for just a 14 second. I think the line may have gotten cut off. 15 Is anybody on the line? 16 MR PANATIER: Let's take a break and call 17 back in. 18 (Off the record at 12:02 pm) 19 (On the record at 12:04 pm) 20 Q All right, sir, the next paper I was going to 21 ask you about was a paper by Barton in 2005, 22 Susceptibility from early life exposure to carcinogens. 23 Have you read that? 24 A I've not, no. 25 Q Brent in 2005, Vulnerability of children to
Page 103 1 Q Have you read a paper from 1990, Kane, 2 Malignant mesothelioma in young adults? 3 A No. 4 Q What about Landrigan in 1991, Population of 5 children at risk? 6 A No. 7 Q Okay. 8 What about Landrigan in 1994, Children at 9 risk to exposure to asbestos? 10 A No. 11 Q What about the paper by Bearer in 1995, How are 12 children different from adults? 13 A No. 14 Q What about Robinson and Buckley in 1995, 15 Environmental factors in childhood cancers? 16 A No. 17 Q What about Zahm and Devesa in 1995, Childhood 18 cancer environmental carcinogens? 19 A No. 20 Q How about Hillerdal, 1999, Mesothelioma and 21 non-occupational and low dose exposures? 22 A No. 23 Q Okay. 24 What about 2003, Birnbaum, Cancer and 25 development exposure?	Page 105 1 toxicants? 2 Have you read that? 3 A I've not read that, no. 4 Q A paper by Haque in 1996, Asbestos in 5 placentas? 6 Have you read that? 7 A No. 8 Q Okay. 9 Does Johnson & Johnson agree that when you're 10 looking for asbestos in a talc product that's going to 11 be used by consumers on themselves and their babies, 12 that the most sensitive analytical techniques should be 13 used so that any asbestos present is not missed? 14 A That is correct, yes. 15 Q Okay. 16 Now, I wanted to go back to earlier I asked 17 you a question about whether or not there were any 18 medical benefits of the use of talc. So I want to show 19 you a document. 20 This one is going to be Exhibit 10. 21 (Exhibit 10 marked for identification) 22 Right. Now, this is a memo, Johnson & 23 Johnson document; correct? 24 A Yes. 25 Q From August 13, 1971, subject is Talc; correct?

Page 106 1 A Yeah. 2 Q And it says at the top Confidential underlined; 3 right? 4 A Yes. 5 Q Okay. 6 It deals with various issues, but let's start 7 on the front some. I've got some highlights. 8 Section C says: 9 "The Bureau of Mines expert who testified at 10 the behest of the FDA commented on the pure grade talc 11 in our Windsor mine but mentioned the ore next to the 12 outlying rock could contain asbestos. It is imperative 13 that careful selection of the ore be maintained at the 14 mines. It is always possible that the FDA may inspect 15 the mines and our records". 16 Did I read that right? 17 A You did, yes. 18 Q Now, other than being worried that the FDA may 19 come and look at your mine and inspect your records, 20 you'd want to be very careful about selection of the 21 rock for the safety of the people who are using the 22 products; true? 23 A Yes. 24 Q Okay. 25 D:	Page 108 1 Q But they've ignored it to that point; right? 2 A No, because they say we've thus far ignored it, 3 but in reality I happen to know that the nickel in the 4 Vermont talc is not what we call biologically 5 available. 6 Nickel that is carcinogenic are nickel salts, 7 like nickel chloride, nickel sulphate. But the nickel 8 that is in the talc is in the form of the nickel that's 9 in your pocket, the 5 cent, 10 cent coins. It's a 10 different material. 11 The nickel that's in the talc is trapped in 12 the nickel lattice, in the same way that a egg yolk is 13 trapped within the egg shell. You can't actually touch 14 the egg yolk; it is trapped inside. 15 So scientists have known that for a long 16 time, that the nickel was not actually biologically 17 available on the skin. 18 Q And we're going to get to that, sir. But that 19 wasn't my question. 20 My question was: they're saying here that 21 they have thus far ignored something; right? 22 A Well, that individual may have ignored it, but 23 I think, certainly within the medical department, the 24 people were aware of nickel and the safety of nickel. 25 Q Well, he doesn't say:
Page 107 1 "Quality Control should be upgraded and the 2 possible presence of asbestos be determined on periodic 3 samples". 4 Did I read that right? 5 A Yes, you did. 6 Q Okay. 7 But it's your testimony that there was never 8 any indication of asbestos in the mines at this time in 9 '71; right? 10 A Yeah. 11 Q Go down to F: 12 "Dr Cralley of the US Public Health Service 13 has published his concern, which he stated at the FDA 14 meeting, regarding metal content of talc, particularly 15 nickel; this ... [is] a possible carcinogen. We have 16 an unusually high content of nickel in Vermont talc 17 which does not appear amenable to removal". 18 "Amenable" means able to; correct? 19 A Correct, yes. 20 Q "We must delve into the subject, which we have 21 thus far ignored". 22 Is that a good safe policy? 23 A It says that the company is taking a challenge 24 seriously, and if there is an issue with nickel, then 25 let's look at it.	Page 109 1 "I have ignored it". 2 He said: 3 "... we have thus far have ignored". 4 Right? 5 A Well, the word "we" is often used by people to 6 include the me, or we, my department, or we a group. 7 Q The royal we? 8 A The royal we, yeah. 9 Q And we are in England? 10 A You are, indeed. 11 Q So -- but let's look, though. Look at the last 12 page. He's cc'd three, four, five, 16 people? 13 A Yes. 14 Q Right. 15 Are you aware of any memo where they wrote 16 back to Mr Shelley, who wrote this one, and said, "You 17 might have ignored nickel, but we haven't been ignoring 18 nickel"? 19 Are you aware of that memo? 20 A I'm not aware of a memo. 21 Q Okay. 22 A Although there may well have been a phone call 23 or a memo that I've not seen. 24 Q Okay. All right. 25 Now, if you ignore something, it means you

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1 are aware of it. You can't ignore something you're not
 2 aware of; right?
 3 A Yes.
 4 Q Okay.
 5 You agree with what I'm saying?
 6 A Yes.
 7 Q Okay. All right.
 8 Go ahead and turn to page 2. Up at the top,
 9 G:
 10 "It is generally accepted that the
 11 lung-damaging particles of minerals are below 10
 12 microns. Roughly, we have about 5-8% of such in our
 13 talc".
 14 Okay. So they're saying that the
 15 lung-damaging particles are less than 10 microns and 5
 16 to 8 per cent of the talc are those lung-damaging
 17 particles; correct?
 18 A Again, that's not -- that's what's written, but
 19 it's not factually correct.
 20 What -- if this person, whoever wrote this,
 21 had been an expert in lung pathology, he would have
 22 used the word what we call "respirable particles".
 23 Particles below 10 microns are those that you
 24 can breathe in.
 25 Q And they refer to those particles below 10

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1 microns as fines; right?
 2 A Yeah.
 3 Q And then there at the end of the paragraph:
 4 "Of more concern are our different blending
 5 methods in the plants. Removal of fines would raise
 6 production costs!"
 7 Right?
 8 A That's what it says.
 9 Q Okay.
 10 Now, let's go ahead and skip down to I.
 11 I:
 12 "A facet of the situation not yet considered
 13 is that of the efficacy of body powder. A considered
 14 approach to all 'health products' is that of benefit
 15 versus risk. While it has generally been believed that
 16 baby powder provides lubricity, thus reducing chafing,
 17 may absorb moisture, etc., this has not been proven
 18 insofar as we know".
 19 Is that what he wrote?
 20 A That's what he wrote and, like I say, it's not
 21 necessarily the view of the company and other people in
 22 the company at that time.
 23 Q Did any of those 16 people write him back? Are
 24 you aware of any evidence where he said -- where they
 25 said, "You're wrong, we have proven the health benefit

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1 versus risk"?
 2 A I'm not aware that they did. I'm not aware
 3 that they didn't.
 4 Q Okay.
 5 Well, you're certainly not aware of any
 6 written evidence that they did; correct?
 7 A I'm not aware of any written evidence.
 8 Q All right.
 9 And by this point in August 13 of '71,
 10 Johnson & Johnson has been advertising the absorptive
 11 nature, the lubricity, reduction of chafing for, what,
 12 80 years by that point?
 13 A I guess so, yes.
 14 Q Okay.
 15 And here, at least in '71, this individual,
 16 calling 16 others, is saying, "We haven't proven that"?
 17 A Yeah.
 18 Q Right?
 19 A That's what he's writing.
 20 Q Okay.
 21 A It's -- like I say, it's not the view of the
 22 company.
 23 Q Well, he's an individual employed by the
 24 company; right?
 25 A He is and, you know, there's nothing to stop

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1 him from writing his opinion.
 2 Q Okay.
 3 A But it is not the view of the company.
 4 Q And we're not -- we're not aware of the fact
 5 that anyone called him out and said, "You're wrong
 6 about that"; right?
 7 A I don't know they did. I don't know they
 8 didn't.
 9 Q Okay.
 10 A I don't know they didn't pick up the phone.
 11 Like I say, it's an individual's opinion.
 12 Q Right.
 13 A But it's not the opinion that's widely
 14 recognized in the -- in the literature as to the value
 15 of talc.
 16 Q Right.
 17 That's just what this man wrote at Johnson &
 18 Johnson in '71; right?
 19 A Yeah.
 20 Q Okay. You can set that aside, sir.
 21 Johnson & Johnson has funded research
 22 regarding its products and the ingredients in those
 23 products over the last many decades; correct?
 24 A Yes.
 25 Q Okay.

Page 114 1 Now, let me ask you this question: that 2 research has included looking at folks who mined talc; 3 right? 4 A Yeah. 5 Q It's included animal studies; right? 6 A Yes. 7 Q Okay. 8 Did Johnson & Johnson ever do a study to 9 track the people who are actually using its products 10 and determine whether or not its customers, and 11 determine whether or not those individuals got 12 mesothelioma? 13 A No. 14 Q Okay. 15 And let me ask you this: in the United 16 States, and let's just pick a decade that you feel 17 comfortable talking about -- '70s, '80, earlier -- can 18 you give us some appreciation for the volume of sales 19 of a product like Johnson's Baby Powder in a given 20 year, just so we can understand it, broadly? 21 A In a given year? Many thousands of tons. 22 I don't know the exact figures. 23 Q Okay. 24 A Yeah, several thousand tons. 25 Q Right.	Page 116 1 "yes" or "no"? 2 A Yes. 3 Q Okay. 4 A Yes. 5 Q Sorry about that. 6 Thousands of tons. That would have been true 7 in the '60s; true? 8 A I guess so, yes, yes. 9 Q Okay. 10 '70s? '80s? '90s? 11 A Yeah, I guess so. 12 Q Currently? 13 A I don't know the current sales figures. 14 Q Okay. 15 A But probably in that ballpark, yes. 16 Q All right. 17 And Johnson & Johnson hasn't made any effort 18 to track the health of the users of its products; 19 correct? 20 A No. 21 Q This would be millions of people; right? 22 A Yeah. 23 Q Okay. 24 When it comes to research, Johnson & Johnson, 25 I'm sure, agrees that scientists should be able to
Page 115 1 And so how many -- if Johnson's Baby Powder 2 has to be at least 90 per cent talc -- 3 A Mmm hmm. 4 Q -- how many containers can you get out of a 5 ton, generally, with the understanding that different 6 sized containers? 7 A Yeah. 8 Q I get that. But just generally? 9 A Well, a ton is 2,000 pounds. Half a pound 10 container. 4,000 8 ounce containers. 11 Q Okay. All right. 12 A Yeah. 13 Q Roughly speaking, you get 4,000 or so? 14 A Yeah. 15 Q Right. 16 And you're talking about selling thousands of 17 tons per year? 18 A Mmm hmm. 19 Q Right? 20 A Yeah. 21 Q Okay. 22 And some years higher; some years lower, I'm 23 sure? 24 A Mmm hmm. 25 Q And I'm sorry, for the record, can you say	Page 117 1 conduct their research independent of influence from 2 interested parties; correct? 3 A Correct. 4 Q You're a scientist; right? 5 A Yes. 6 Q Have you ever done research? 7 A Yes. 8 Q Did you want to be influenced by interested 9 parties? 10 A No, indeed. 11 Q Okay. 12 And why would you not want to be influenced 13 by interested parties? 14 A Because an interested party may have an opinion 15 that would differ from reality from the final 16 conclusion. 17 It's possible. 18 Q Yeah. 19 A It depends on the company. It depends on the 20 organization. 21 Q There's always a risk that, if an interested 22 party exercises influence over the research, they can 23 influence the results; correct? 24 A That is correct, with a caveat that it depends 25 what the influence is.

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1 If the influence is "I'll give you \$10,000 to
2 do this research and say no more", then that's not
3 really an influence. It's just a case of, "I'm doing
4 this job and I'm getting \$10,000 for it".
5 Q Okay.
6 Funding alone may not be undue influence is
7 what you're saying?
8 A That's what I'm saying, yes.
9 Q Undue influence would be what?
10 A Undue influence would be visitations to the
11 laboratory, looking at the results and saying, "Do you
12 really mean this?"
13 It's actually trying to interfere with the
14 final outcome, the final results.
15 Q Trying to control it?
16 A Trying to control it, yeah.
17 Q And what about -- what about sending a letter
18 to the researcher saying, "Here's the results we'd
19 like"?
20 A That would be unprofessional.
21 Q Okay.
22 It would be improper to exert influence on
23 the direction of scientific study; correct?
24 A Yeah.
25 Q It would be improper to exert influence on a

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1 scientific study to try and shape the results; correct?
2 A Correct.
3 Q Would Johnson & Johnson ever fund scientific
4 research so that they could control it?
5 A I would hope not. I'm not aware that that's
6 ever occurred.
7 Q All right.
8 Did Johnson & Johnson ever engage in the
9 suppression of publications it found hostile or adverse
10 to its interests?
11 A I'm not aware that, no.
12 Q Did Johnson & Johnson ever set out to
13 compromise or discredit researchers who had implicated
14 talc as containing asbestos?
15 A No, I'm not aware of that.
16 Q Okay.
17 Did Johnson & Johnson ever systematically
18 follow talc users -- well, actually, I already asked
19 you that, so never mind.
20 When did Johnson & Johnson begin using
21 transmission electron microscopy to analyze either its
22 ore, the ore sources that it was getting for talc or
23 the final product?
24 A I believe it was before the CTFA published
25 their 1976 method.

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1 J&J was basically using that same method I
2 believe from about '72, '73, that timeframe, plus
3 transmission electron microscopy.
4 Q So we'll -- we'll get into that. We've got
5 plenty of documents on that.
6 But when was the first time that use of TEM
7 became routine?
8 A Within Johnson & Johnson?
9 Q Yes?
10 A I believe around '74, '75.
11 Q And how often was Johnson & Johnson using
12 transmission electron microscopy on its ore to test it
13 for asbestos?
14 A The unground ore? The raw ore? I don't know
15 the answer to that question.
16 Q Well, that's -- you've given me a question,
17 which is: raw versus unground?
18 A Yes.
19 Q Explain the difference?
20 A Okay.
21 The mine produces ore. The mine will have
22 their ore validated, confirmed and checked for quality
23 on a regular basis before it's ground.
24 That's something that most mines will do on a
25 fairly regular basis.

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1 So that's separate from the final ground
2 talc.
3 Q Okay.
4 What parts of the ore process process was
5 Johnson & Johnson using transmission electron
6 microscopy on regularly when it did start doing it
7 regularly?
8 A In the 1970s?
9 Q Mmm hmm?
10 A Early '70s?
11 Q Yes?
12 A Sorry, would you rephrase the question?
13 Q Yeah. I guess what I'm asking is: in what part
14 of the process was the TEM testing coming in?
15 A Okay. My understanding, it was done both on
16 the validation of the initial ore samples, or regular
17 ore samples on an audit basis, and then obviously on
18 the actual talc produced, ground down to the fineness
19 that was required. Both.
20 Q Okay.
21 So when they validate a source, they would
22 test it?
23 A Yes.
24 Q And then when it was ground, they would test
25 it?

Page 122 1 A Yes. 2 Q How often would they test the ground talc in 3 the early '70s with TEM? 4 A Okay. It was -- tended to be done every two 5 weeks, every -- bi-weekly, I think the phrase is. 6 Q Right. 7 A Initially, sometimes weekly, but mostly 8 bi-weekly. 9 Q Okay. 10 Now, when we look at the documents regarding 11 testing, will that give us the best pictures of what 12 they were doing? 13 A I would hope so, yes. 14 Q All right. 15 Now, I asked you before whether or not 16 Johnson & Johnson referred to its baby powder as an 17 institution; you said it did? 18 A Yeah. 19 Q Right. 20 A It did. 21 Q Johnson & Johnson has regularly referred to its 22 baby powder as "the franchise"; right? 23 A That's a marketing phrase, but it has been 24 described as a franchise, yes. 25 Q Their flagship product?	Page 124 1 Q Okay. 2 Johnson & Johnson has even referred to its 3 baby powder as a "sacred cow"? 4 A I've not seen that. 5 Q Okay. 6 A But if you've got that documented, then that's 7 not unreasonable. 8 Q Okay. 9 A But I've certainly not seen that expression. 10 Q And the cornerstone of the baby products 11 company. You wouldn't disagree with that, would you? 12 A Well, again, if -- you may well have that 13 documented. I have not seen that. 14 Q Okay. So let's do "sacred cow" first. 15 So this is Exhibit 11. 16 (Exhibit 11 marked for identification) 17 A Thank you. 18 Q You can see here, sir, there's a -- these are 19 some emails, and this is from -- the second email down 20 is from Steven Mann, who we know; right? 21 A Yes. 22 Q And he writes to Paul and Lorena. Paul 23 Sterchele and Lorena Telofski. 24 And he actually spells "sacred" wrong, but I 25 think we can agree that's what he's meaning.
Page 123 1 A It is one of the flagship products. 2 Q Okay. 3 A Along with baby lotion, yeah. Baby shampoo. 4 They're flagship products. 5 Q "Flagship" means that's the product people 6 think of and associate with the company when they think 7 of the company? 8 A That's correct, yes. 9 Q Right. 10 Most people, when they think about Johnson & 11 Johnson, they're either thinking about baby powder or 12 they're thinking about that baby shampoo; right? 13 A Yeah, or Band-Aid. 14 Q Okay. 15 A Those are well known brands that have been 16 around for generations, yeah. 17 Q Okay. 18 J&J makes thousands of products, though; 19 right? 20 A That is correct, yes. 21 Q Okay. 22 And the baby powder is easily the top one or 23 two products that people think of when they think of 24 J&J; right? 25 A They do, yes.	Page 125 1 He says: 2 "My sense is that the Baby Powder is such a 3 ..." 4 And he says: 5 "... scared cow that we will just leave it 6 alone". 7 Have you ever heard of the expression "scared 8 cow"? 9 A No. 10 Q He means "sacred cow"; right? 11 A Okay. I'll take your word for it. 12 Q Well, you tell me, am I wrong? 13 A Yeah, yeah, I'll take your word for it. 14 Q Okay. Well, I want your word. 15 That means -- he's saying "sacred cow"; 16 right? 17 A Could well -- 18 MR GAFFREY: Do you have a date on that? 19 MR PANATIER: Yeah, sorry. That is 6.30.2003 20 at the top. All right. 21 Q He calls Baby Powder a sacred cow there; right? 22 A He does, yes. 23 Q Okay. 24 And he's not an underling; right? Mr Mann is 25 a pretty high up guy?

Page 126 1 A He's a toxicologist. 2 Q Okay. All right. 3 Sir, you can set that aside. 4 This next one will be Exhibit 12. 5 (Exhibit 12 marked for identification) 6 Okay. Exhibit 12 is a Johnson & Johnson 7 document; right? 8 A Yeah. 9 Q This is from back in June of 1966; true? 10 A Yeah. 11 Q All right. 12 Now, this is -- the subject here is JOHNSON'S 13 Baby Powder Talc Aspiration; right? 14 A Mmm hmm. 15 Q What does that mean? Aspiration? 16 A Okay. Yeah. I remember this. 17 It essentially means choking. At that time, 18 and certainly since then, there have been cases where 19 baby's grabbed a tub of baby powder, fallen back, 20 tipped it over its face, maybe choked with two or three 21 ounces of powder. 22 Aspiration is very different from inhalation. 23 It's a medical -- it's a medical term. 24 Inhalation is what we do when we inhale 25 fumes, cigarette smoke, what have you.	Page 128 1 little holes. 2 So in a sense they are intended so that if 3 you -- if the cap is closed and you invert the tub of 4 baby powder, nothing will come out. 5 Q So just by -- it's Johnson & Johnson's opinion 6 that just rotating the top makes it child proof? 7 A It closes the -- closes the cap. 8 There's never -- no such -- I'm not aware of 9 any child proof closure that could well be developed. 10 Q Okay. All right. 11 So Johnson & Johnson has never put a child 12 proof top on its talc? 13 A It's produced -- put a child resistant closure 14 on the top, whereby if the mum closes the cap to close 15 up the seven little holes, then the powder will not 16 come out. 17 Q Unless a child opens it? 18 A Unless the child -- yeah, if a baby's smart 19 enough to open it, then that would in theory happen. 20 Q Well, certainly a young child. You wouldn't 21 think of an infant as opening a bottle; right? 22 A Correct. 23 Q Okay. 24 But a small child could? 25 A A small child could, yes.
Page 127 1 Aspiration, or talc aspiration in this case, 2 related to incidences where there had been at that time 3 cases where baby or baby's little sister tipped the tub 4 of baby powder on their face and blocked the nose and 5 mouth. 6 That's aspiration -- 7 Q When -- 8 A -- which you can get into the lung at that 9 point. 10 Q Sure, sure. 11 And there were -- there have been cases of 12 deaths from talc aspiration; correct? 13 A There have, yes. 14 Q Yeah. 15 And when was the first time that Johnson & 16 Johnson put a baby proof or child proof lid on its baby 17 powder? 18 A It depends how we define "baby proof" or "child 19 proof". 20 Q It means a kid can't get into in? 21 A Yeah. I mean, the -- the issue is to have a 22 cap over the product, and my understanding of looking 23 at some of those from the 1940s is they have a screw 24 cap over the seven little holes, and at a later date, 25 it's a rotor cap where it will close over the seven	Page 129 1 Q Okay. 2 So this paper, going back to this paper, the 3 first highlight says: 4 "Baby Powder represents the cornerstone of 5 our baby products franchise" in 66. 6 This goes back to us referring to it as the 7 "franchise" and the "flagship product"; right? 8 A Yeah, yeah. 9 Q "In addition, we have a large investment in a 10 talc mine". 11 Now, that would be the mine in Vermont; 12 correct? 13 A Yes. 14 Q Okay. 15 "I am concerned over the conclusions drawn in 16 the article, quote. 17 'In conclusion, it is strongly urged that 18 talcum powder be removed from the environment of 19 children and the traditional association of talcum 20 powder and babies be abandoned. It has no medicinal 21 value; wherever placed it serves as a foreign body; and 22 at least three deaths and an unknown morbidity have 23 resulted from this silicate powder". 24 And that's a quote from this article in the 25 American Journal of Diseases of Children; correct?

Page 130 1 A That was the opinion of the author of the 2 article, a Dr Hughes and Kalmer in 1966, but it's an 3 opinion, which they express, which they're entitled to. 4 Q Right, and so they expressed the opinion that 5 talcum powder use on babies be abandoned; correct? 6 A They expressed that opinion. 7 Q And -- 8 A That's their opinion. 9 Q And the further opinion they had was that it 10 had no medicinal value; right? 11 A Well, that's their opinion. It's -- I respect 12 that opinion. It's not one that I would agree with, 13 but they're entitled to that opinion. 14 Q Well, we know from one of our earlier documents 15 that a Johnson & Johnson individual expressed basically 16 the same opinion five years later in 1971, where he 17 said the benefits have not been proven; correct? 18 A An opinion by one individual. 19 Q Right. 20 A But not by pretty well anyone else in the 21 corporation. 22 Q Well, now we're up to at least three 23 individuals; right? 24 A Okay. 25 Q Two outside of Johnson & Johnson and at least	Page 132 1 data to refute this problem or to develop mechanisms to 2 reduce the hazard". 3 Right? 4 A Yeah. 5 Q Okay. 6 So develop mechanisms to reduce the hazard. 7 There was never a true child proof lid; 8 correct? 9 A Correct. 10 Q And one of their other potential motives here 11 was to refute this problem of this article; right? 12 A Yeah. 13 Q Okay. 14 A But it's worth saying that currently it's my 15 recollection that an option to reduce the hazard is 16 proper labeling, and that is the case at present. 17 Q At present that's the case; right? 18 A Yeah. 19 Q That says, "Keep out of reach of children"; 20 right? 21 A That's correct. 22 Q When was the first time that appeared? 23 A I believe in the late 1980s, early '90. I'm 24 not sure now. 25 Q Okay.
Page 131 1 one in it; right? 2 A And how many employees has Johnson & Johnson 3 got worldwide? 4 Q Well, that's a great question. So -- 5 A Several thousand. 6 Q Yeah. 7 So what you're saying is -- I guess, are you 8 saying that in order for a company to have an opinion, 9 every employee has to be surveyed? 10 A No, but an individual within a company can 11 raise an issue, issue an opinion, and they could well 12 say, "Are we doing the right thing? Let's challenge 13 ourselves". 14 That's a normal thing in any good business. 15 Challenge ourselves to what we're doing. Are we doing 16 it properly? 17 Q Okay. 18 A Could we make a better job of it? 19 That's -- that's good business practice. 20 Q Okay. 21 Well, let's see if they're doing the right 22 thing here. Let's look at their line after the quote 23 from the article: 24 "Would it be possible for us to initiate 25 basic work to explore this phenomenon either to obtain	Page 133 1 A But certainly that is -- that is one option 2 that was taken. 3 Q So Johnson & Johnson had been making Johnson's 4 Baby Powder for how long by 1990? 5 A A hundred years. 6 Q Over a hundred years? 7 A Yeah. 8 Q Right. 9 And the first time there was a warning that 10 said "Keep out of reach of children" was late '80s, 11 early '90? 12 A That's my belief, yes. 13 Q Was there anything stopping Johnson & Johnson 14 from putting a -- that warning on it a hundred years 15 earlier? 16 A The -- it's a theoretical hypothetical 17 question. 18 You put warnings on a product if there's a 19 valid reason to do so. I think up until that time 20 no one had ever considered there to be a valid reason. 21 As I've said before, the current closures, 22 which go back to the -- certainly to the 1940s, the 23 seven little holes with the screw top cover, providing 24 mum exhibits good parental behaviour, would say: yep, 25 you put the cover on, close it up, screw it up, and if

Page 134 1 it's screwed on tightly, it isn't accessible to baby. 2 Q Sir, you said if there was a good reason for 3 it. 4 This article we just looked at is 1966. 5 That's 34 years before 1990; correct? 6 A That is correct. 7 Q Or 24 years before 1990; right? 8 A Yeah. 9 Q And so 24 years before 1990, they're aware of 10 an article about deaths from aspiration of talc, and it 11 took 'em 24 years to put a warning on it that said, 12 "Keep out of reach of children"? 13 A That's -- that's not part of the story, but the 14 whole story is that there has always been an adequate 15 closure on the product, and as long as parents exhibit 16 good parental behaviour of closing the cap after use, 17 keeping the product out of the way of baby, in the same 18 way you would with a baby shampoo or other product, 19 then the product is safe. 20 Q Okay. So the warning they put on there in 1990 21 or thereabout wasn't even needed? 22 A It's good business practice to reflect the 23 practices at that time. 24 Certainly, that was the decision that was 25 taken at that time to put an extra warning on.	Page 136 1 That is a medical benefit, to enhance that -- 2 that whole relationship. 3 MS FRAZIER: Is this a good time to stop for 4 lunch? 5 MR PANATIER: Let me do one document on that 6 question and then we'll take a break, yes. 7 So this will be Exhibit 13. 8 (Exhibit 13 marked for identification) 9 Q Here you go, sir. All right. 10 Sir, do you see this is a document entitled 11 Johnson & Johnson Baby Powder Questions and Answers, 12 Confidential, December 1985. 13 Do you see that? 14 A Yeah. 15 Q And if you go to -- turn to the first page on 16 the inside, it says: 17 "The attached Question and Answer document 18 has been developed for limited internal distribution in 19 response to the need for clarification of issues 20 relating to baby powder and talc. Specifically, its 21 sole purpose at this time is to provide designated 22 company spokespersons with answers to questions which 23 could be raised by the press. It is not meant for 24 distribution to anyone other than the individuals who 25 will act as company spokespersons as necessary".
Page 135 1 Q And so my question is: they could have done it 2 earlier, because they had notice of the problem 3 earlier; correct? 4 A In theory, yes. 5 Q How much -- how much extra ink did it cost 6 Johnson & Johnson to put the warning to keep out of 7 reach of children on the bottles? 8 A I couldn't answer that question. 9 Q Not much; right? 10 A Not much, no, I'm sure. 11 Q In so far as Johnson's Baby Powder was a sacred 12 cow, an institution, a franchise, a flagship, a 13 cornerstone of Johnson & Johnson's business, it would 14 be very, very bad for business if it ever came out that 15 the baby powder or any of Johnson & Johnson's talc 16 products ever contained asbestos; correct? 17 A Yes, correct. 18 Q And none of Johnson & Johnson's talc products 19 ever provided any medical benefits. 20 We've talked about this relationship between 21 mom and baby, but medical benefit; isn't that true? 22 A No. You have to define "medical benefit", and 23 the term "medical" I think that Johnson & Johnson would 24 use would be an improvement of mother's bonding with 25 the baby.	Page 137 1 Did I read that right? 2 A You did, yes. 3 Q And then for this one it actually recommends 4 different spokespeople, right, and there's four of 5 them; true? 6 A Yeah. 7 Q Now, you've seen these before in the company; 8 right? 9 A Yes. 10 Q Where the company tries to help educate its 11 people on how to respond to the press or to inquiries 12 from customers, et cetera; right? 13 A Yes. 14 Q Okay. 15 So that's what this is; fair? 16 A Yeah, that's correct. 17 Q Right. 18 A Yeah. 19 Q Turn to the page, at the top it's marked 3. 20 It's got a 3. 21 You know what? We can actually skip that. 22 You and I have talked about that. 23 So let's go straight to -- let's go straight 24 to 12, page 12. 25 Okay. There's a sample question here and a

Page 138 1 sample answer. 2 The question is: 3 "You are now test marketing JOHNSON'S Baby 4 Powder with cornstarch. Why does that product package 5 have a warning label and not JOHNSON'S Baby Powder with 6 talc, which is more dangerous?" 7 Answer: 8 "Our research has shown that normal use of 9 cosmetic talc is safe. As you said, JOHNSON'S Baby 10 Power with cornstarch is in the test market stage, and 11 does offer instructional and cautionary labeling. We 12 are in the process of developing this kind of labeling 13 for JOHNSON'S Baby Powder". 14 Now, this is '85. You said you believed the 15 labeling for Johnson's Baby Powder or talc came out 16 late '80s, early '90s; right? 17 A Yeah. 18 Q Okay. 19 So at this point, Johnson & Johnson is 20 selling baby powder with cornstarch; true? 21 A Yes. 22 Q Okay. 23 When was the first time Johnson & Johnson 24 started selling cornstarch as an alternative to talc? 25 A I don't know the answer to that question.	Page 140 1 So the two products have similar end use, but 2 they have different physical properties. 3 Q Okay. Go to page 26, please. 4 Here's the question that J&J has posed for 5 its folks to be able to answer. It's number 2 on page 6 26. 7 Found it? 8 A Yeah. 9 Q Okay. 10 Question: 11 "There's no medical benefit to baby powder, 12 is there?" 13 Johnson & Johnson's answer: 14 "Talc is not presented as having a medical 15 benefit, it is not a drug". 16 Is that what Johnson & Johnson said there? 17 A That's what they're saying there, yeah. 18 Q Okay. 19 Then they go on to talk about moisture and 20 lubricity and all of that stuff; right? 21 A Yeah. 22 Q And touching? 23 A Yeah. 24 Q Right. 25 But they say:
Page 139 1 I'm going to be straight on that one. I 2 don't know. 3 Q Okay. Thank you for being straight on that 4 one. 5 Does Johnson & Johnson agree that if for any 6 product it makes, if it is aware of a safer alternative 7 ingredient to one that it is currently using, it should 8 use the safer alternative ingredient? 9 A If -- if the product produced the same 10 benefits -- same benefits and consumer acceptance. 11 Q Okay. 12 A It's not unreasonable to say that, yeah. 13 Q Okay. 14 Is cornstarch a safer alternative to talc? 15 A It's an alternative and it's safe, but the 16 behaviour is very different, and I'll try and explain 17 why. It's to do with the physics. 18 Talc is dry. It acts as a dry lubricant. 19 The talc particles, which look like little dinner 20 plates, side plates, they slide over each other to give 21 that dry lubricious feeling. Silky feeling. 22 Cornstarch, on the other hand, is -- it's the 23 same stuff you make sauce with. It absorbs quite a lot 24 of moisture. It doesn't slide, but it's good for 25 absorbing moisture.	Page 141 1 "[It] ... is not presented as having a 2 medical benefit, it is not a drug". 3 Correct? 4 A Yeah. 5 Q Okay. 6 A That -- let me be clear, the definition of a 7 drug or a medical benefit relates to the United States 8 drug laws where a drug is one substance which is 9 claimed as having a therapeutic or a treatment 10 condition. 11 The benefit that I think J&J would describe 12 it as is one that's in the very last line there: 13 "... which fulfills a documented 14 psychological need for 'touching and bonding'". 15 Q Right. 16 A Which is not medical in the sense of treating 17 as you would for a headache or a heart condition. It 18 is a psychological benefit to help bond mother with 19 baby. 20 Q Right. 21 There is no -- setting aside whatever 22 regulatory definition is, right -- there is no medical 23 benefit to Johnson's Baby Powder. 24 There are other benefits that Johnson & 25 Johnson wants to talk about, but no medical benefits;

Page 142 1 correct? 2 A Well, no. Let me -- let me rephrase that, 3 then, because I think I was trying to explain that a 4 medical benefit can include benefits which are not just 5 drug type related, like aspirin or sudamenafin or a 6 heart drug. Those are obviously medical benefits. 7 But the medical benefit, if you like, is much 8 greater than whether it's treating a headache or what 9 have you. 10 It's a broader benefit involving that deep 11 psychological relationship -- 12 Q Mmm hmm. 13 A -- between a mother and a baby, and many people 14 would say that that is still a medical benefit. 15 It doesn't just stop because you're not 16 dealing with a headache, or what have you, or a cough 17 or a cold. 18 Q Okay. 19 A It's a broader -- broader benefit. 20 That whole relationship between mother and 21 baby is one which in modern society is one which could 22 easily break down, and we get cases where mums have no 23 affinity for their baby. 24 Q And is that because they didn't use talc? 25 A No. I'm just saying that's one where maybe the	Page 144 1 Last one. Go to page 44. 2 Last question. Question 3: 3 "If your own studies link talc to ovarian 4 cancer, will you pull your talc products off the 5 market?" 6 Answer: 7 "If such tests prove a cause and effect 8 relationship, yes we would remove our talc products. 9 Johnson & Johnson would never place baby powder users 10 at unacceptable risk. The safety of the consumer is 11 our primary concern". 12 Is that -- did I read that right? 13 A You did, yes. 14 Q Okay. 15 It said. 16 "... would never place ... users at 17 unacceptable risk". 18 Is there an acceptable risk that Johnson & 19 Johnson would place its consumers in? 20 A No risk is acceptable. 21 Q Okay. No risk is acceptable. Okay. 22 All right, sir. You can set that aside and 23 we can go off the record for our break. 24 (Off the record at 12:42 pm) 25 (On the record at 1:23 pm)
Page 143 1 psychological relationship never develops. 2 Q Okay. 3 A Developing that psychological relationship with 4 products like talc, with baby lotion, baby cream, is 5 quite important for that relationship between a mother 6 and a baby. 7 Q They get the same benefit if they use 8 cornstarch powder, too; right? 9 A They would, yes. 10 Q Yeah. Okay. 11 So let's turn to page 41. 12 A Yes. 13 Q At the top of that one. 14 Question: 15 "Why is J&J changing its flagship product to 16 contain cornstarch?" 17 Answer: 18 "We are not changing our flagship product. 19 JOHNSON'S Baby Powder has been on the market nearly 100 20 years and it remains the baby powder preferred by 21 consumers". 22 So there they've called Johnson's baby powder 23 their flagship product; correct? 24 A They have, yes. 25 Q Okay.	Page 145 1 BY MR PANATIER: 2 Q All right, sir. Are you doing all right? 3 A Thank you, yes. 4 Q Okay. 5 So let's quickly go back to Exhibit 6. This 6 is the one where I was asking you about IARC, and you 7 had said you had applied to be an observer, not one of 8 the experts; correct? 9 A That was my intention, yes. 10 Q Okay. 11 Go ahead and turn to the second page, and the 12 very last sentence from Vincent Coglianò and Robert 13 Baan. 14 They say: 15 "Finally, you may wish to note that Monograph 16 meetings can accommodate a limited number of Observers, 17 who may be nominated via our web site until November 18 1". 19 A Yeah. 20 Q So it appears you were applying to be one of 21 the experts on the working group, because they actually 22 offer you to apply to be an observer; correct? 23 A Well, I read what it says here, but that is not 24 the reality. That does not reflect the reality. 25 Q Okay.

Page 146 1 A I didn't expect to be accepted as on the 2 working group, the expert working group. I didn't 3 apply to that. My intention was to apply as an 4 observer. 5 They -- it's almost -- this reads to me like 6 it's a standard boilerplate letter that they've just 7 stuck -- cut and pasted and sent it out. 8 Q Well, either way, they certainly are treating 9 it as if you applied to be an expert on the working 10 group, and they offered you to apply to be an observer; 11 correct? 12 A Well, like I say, this reads to me like it's a 13 standard boilerplate response that's been cut and 14 pasted. 15 I did not apply because, basically, I 16 didn't -- you know, I knew who the people were who were 17 going to be on the IARC working group, the actual 18 party. In fact, they're people who are -- that's fine. 19 They're nominated. 20 But my intention when I applied was to apply 21 to be nominated as an observer, and I did apply through 22 the website. 23 So this -- this response -- it looks like 24 it's a fairly standard response -- is one which 25 mentions, but it doesn't describe the reality of the	Page 148 1 consumer products company. When I was there, it was 2 in -- just outside Princeton. 3 Q Okay. 4 A Yeah. 5 Q And did they get subscriptions to journals and 6 things like that? 7 A Yes. 8 Q Such as JAMA? 9 A Yes. 10 Q Right. 11 That's the Journal of the American Medical 12 Association; right? 13 A Yes, that's correct. 14 Q Some of the other big ones would be the British 15 Journal of Industrial Medicine; right? 16 A It's -- yeah, I can't recollect that particular 17 one, but it's the kind of thing that would be there. 18 Q Okay. 19 A In principle, yes. 20 Q New England Journal of Medicine? 21 A Yeah, New England Journal of Medicine. 22 Q The Lancet? 23 A Yeah. 24 Q What about the New York Academy of Sciences? 25 A I can't remember. It's not one that's top of
Page 147 1 situation. The reality was that I applied to be an 2 observer. 3 Q Okay. 4 They are certainly not responding as if you 5 applied to be an observer; correct? 6 A They are and, you know, like I say, this reads 7 to me like this is a standard boilerplate response 8 where someone's just cut and pasted a standard letter, 9 which they send out to anyone and everyone. 10 But I applied to be an observer. 11 Q Okay. 12 Okay. You can set that aside. All right. 13 You can set that aside, sir. 14 A Yeah. 15 Q Okay. Johnson & Johnson. 16 Did Johnson & Johnson keep a library? 17 A Yes. 18 Q Medical library? 19 A Yes. 20 Q Okay. 21 Pretty big medical library; true? 22 A Yes. 23 Q Right. 24 Was that there in New Brunswick? 25 A It was in the research department of the	Page 149 1 mind. 2 Q Okay. 3 A That's for sure. 4 Q And, at least for the big journals, things like 5 JAMA and New England Journal of Medicine, British 6 Journal of Industrial Medicine, are those types of 7 journals that they would have had subscriptions to for 8 decades? 9 A I would think so, yes. 10 Q All right. 11 A Yes, yeah. 12 Q Okay. All right. 13 Now, when did Johnson & Johnson first learn 14 that asbestos could be hazardous in any context? 15 A In the medical literature, you can find reports 16 of asbestos disease, asbestosis, going back to the turn 17 of the last century, the early 1900s, you'll find 18 reports of asbestos disease in industrial workers. 19 Q Okay. 20 And then going into the 1930s you see 21 instances of cancer from asbestos; correct? 22 A Correct, yes. 23 Q All right. 24 And, in fact, in 1949, in the Journal of the 25 American Medical Association, there was a paper -- I

Page 150 1 have it here -- called -- it was an editorial called 2 Asbestosis and cancer of the lung. 3 Are you familiar with that one? 4 A No, no. 5 Q All right. 6 I'm just going to mark that one. Let's chat 7 about that one for a minute. 8 Exhibit 14. There you go. 9 (Exhibit 14 marked for identification) 10 MS FROST: Did you say Exhibit 14? 11 MR PANATIER: Yes, that's 14. 12 MS FROST: Okay. 13 BY MR PANATIER: 14 Q All right, and that is an editorial by 15 Fishbein. I think it's on the front cover. 16 A It is on the front page, yeah. 17 Q Right. 18 Published in the Journal of the American 19 Medical Association in 1949; right? 20 A Yeah. 21 Q Okay. 22 And inside there is the title of the article 23 highlighted, which is -- what? What does it say? 24 A Asbestosis and cancer of the lung. 25 Q Okay.	Page 152 1 examination with detailed histologic analysis." 2 Q Right. 3 So that's -- this author at least is pretty 4 convincingly putting the case for lung cancer from the 5 disease asbestosis; fair? 6 A He is, yes. 7 Q All right. 8 And you don't dispute that that appeared in 9 the literature in JAMA in 1949, do you? 10 A That is exactly what is written here, yes. 11 Q Okay. 12 You can set that aside, sir. 13 There we go. This is Exhibit 15. 14 (Exhibit 15 marked for identification) 15 This is -- if you turn to the second to last 16 page, you'll see your signature there from July 7, 17 2016? 18 A Yeah. 19 Q Right? 20 And this is a declaration that you filled out 21 in the Payan case, or Payan case? 22 A Yes. 23 Q Right. Okay. 24 Was this a case where you were retained as an 25 expert witness by Johnson & Johnson's lawyers?
Page 151 1 And then there's another highlight that I've 2 got there. Do you want to read that out loud? 3 A Yeah. 4 "During [the] 23 years, 1924 to 1946 5 inclusive, 235 deaths, either caused by asbestosis or 6 in which asbestos had been established at necropsy, 7 were reported to the Chief Inspector. Cancer of the 8 lungs or pleura was found in 31 of these cases." 9 Q And they're talking about cancer of the lungs 10 or pleura in individuals exposed to asbestos -- with 11 asbestosis; correct? 12 A Yes. 13 Q Okay. 14 Now, the pleura, that's where mesothelioma 15 occurs; correct? 16 A Correct, yes. 17 Q All right. 18 Go ahead and turn the page to the next page. 19 There's another highlight. Go ahead and read that 20 highlight for us. 21 A "As the available evidence shows that the 22 occurrence of cancer of the lung is related to 23 pulmonary asbestosis and ... not merely a possible 24 sequela of exposure to asbestos dust, ... all fatal 25 cases of asbestosis there should be [a] postmortem	Page 153 1 A Yes. 2 Q Is this an ovarian cancer case? 3 A No. 4 Q Okay. 5 A No, it wasn't. 6 Q All right. 7 Go to page 3. 8 A I'm not -- I don't want to be certain on that. 9 Q Okay. That's fine. 10 A I was retained, but it's a while back. 11 Yeah? 12 Q Okay. 13 Do you see paragraph 18, you write: 14 "Although asbestos was not known as a hazard 15 in 1949, the presence of asbestos was even at that time 16 considered highly undesirable as the 'feel' of its 17 presence on the skin is regarded as unpleasant and 18 cosmetically unacceptable". 19 Okay, and you're talking about if it was in 20 talc; right? 21 A Yes. 22 Q Okay. 23 But you say: 24 "Although asbestos was not known as a hazard 25 in 1949 ..."

Page 154 1 Now, that's not true, is it? 2 A No, it's probably a misunderstanding. 3 If you go three lines higher in bold font, a 4 larger font -- 5 Q Mmm hmm. 6 A -- the heading talks about Specification of 7 Cosmetic Talc. 8 And when I'm talking about the specification 9 of cosmetic talc, I'm saying that, although asbestos 10 was not a known hazard in 1949 as part of the 11 specification of cosmetic talc, so it's really -- I'm 12 talking about the specification of cosmetic talc. 13 So I'm talking about the requirement for 14 absence of asbestos in cosmetic talc. 15 So what I'm saying is asbestos was not a 16 known hazard in talc in 1949. 17 Q Okay. 18 So you're not -- because the words you wrote 19 were: 20 "Although asbestos was not known as a hazard 21 in 1949 ..." 22 What you're talking about is in talc? 23 A Yes, because that's the -- if you very 24 carefully, three lines above in heavy, bold font, 25 "specification of Cosmetic Talc.	Page 156 1 have been expected." 2 And you don't dispute that that was published 3 in 1898, here in England? 4 A Yeah, that's right. That was one of the first 5 publications, and there were others that followed -- 6 Q Okay. 7 A -- in the next five, ten years. 8 Q All right. 9 Were you aware that the State of California 10 had a regulation on airborne asbestos as of 1936? 11 A I was aware there was a regulation. I wasn't 12 sure of exact date. 13 Q Okay. 14 A But I believe you if you say 1936. 15 Q All right. 16 You don't dispute it? 17 A No, I don't dispute it. 18 Q Okay. All right. 19 Needless to say -- I think this is fairly 20 obvious, but there has never been a warning regarding 21 asbestos on any of Johnson & Johnson's talc powders; 22 fair? 23 A That's fair. 24 Q Okay. 25 A Because there's never been any asbestos in the
Page 155 1 As I've said, toxicologists have been aware 2 that asbestos was a hazard since 1905 or 1903, early 3 publications. 4 Q Are you aware of a publication actually in -- 5 from the Chief Inspector of Factories in London, 6 England, in 1898? 7 A That's it, yeah. 8 Q Right? 9 A Yeah. 10 Q And, in fact, there in that publication, they 11 said: 12 "The evil effects of asbestos dust have also 13 attracted my attention. A microscopic examination of 14 this mineral dust which was made by HM --" and that 15 means Her Majesty's; right? 16 A Yeah. 17 Q "-- Medical Inspector clearly revealed the 18 sharp glass-like jagged nature of the particles --" 19 And that's -- you've said something similar? 20 A Yeah, needle-like. 21 Q Needle-like. Right. 22 A Yeah, yeah. 23 Q "-- and where they are allowed to rise and to 24 remain suspended in the air of a room in any quantity 25 the effects have been found to be injurious as might	Page 157 1 talc products. 2 Q Now, Johnson's Baby Powder was first sold when? 3 A 1890s. No, a little earlier than that. 1870s. 4 Q Okay. 5 A Yeah. 6 Q And the containers and packaging always said 7 something to the effect of Johnson's Baby Powder or 8 Johnson & Johnson Baby Powder? 9 A Correct, yes. 10 Q Right. 11 From looking at some historical samples, it 12 looks like there was a period of time where the 13 containers were metal? 14 A Yes. 15 Q And then there was a period of time when they 16 were plastic. 17 Do you know when that cross over was, or if 18 there was ever a clean cross over? 19 A For most of the time, it was metal. I believe 20 that there was probably a time, certainly in the UK, 21 probably in the late '40s, early '50s, when it was 22 actually stiff cardboard. 23 Q Mmm hmm. 24 A There was a difficulty in getting metal. 25 They moved to plastic in the early 1980s in

Page 158 1 the UK. I think probably the same time in the US. 2 Q Okay. 3 A Late '70s, early '80s. 4 No, I'm going to correct that. 5 Q Mmm hmm? 6 A I think it was early 1980s, yeah. 7 Q Okay. 8 When did Shower to Shower first come out? 9 A I don't know the answer to that question. 10 Q What about Johnson & Johnson's medicated 11 powder? 12 A Again, I think that was approximately late 13 '60s. approximately. 14 Q Okay. 15 Going back, this will bring us into our next 16 topic, but it's a fairly recent document. 17 This is Exhibit 16. 18 (Exhibit 16 marked for identification) 19 This is a letter you wrote in 1996. January 20 29, 1996; right? 21 A Yes. 22 Q And it is to Ian Phillipson, Head of Scientific 23 Services at the Cosmetic Toiletry & Perfumery 24 Association Limited. 25 That would be the UK version of the CTFA or	Page 160 1 also". 2 Right? 3 A Yes. 4 Q So you're writing this fellow? 5 A Yeah. 6 Q And you've attached a memo from Bill Ashton to 7 you. 8 Now, William Ashton was at Johnson & Johnson 9 and dealing with the talc and asbestos issue since the 10 '50s; right? 11 A Very early '50s, yes. 12 Q Yeah. Okay. 13 And what he wrote to you here in 1996, he 14 says: 15 "Attached is page eleven of the current issue 16 of A CTPA Guide, wherein Fred Pooley makes the 17 suggestion that any batch of cosmetic talc which reads 18 positive for the presence of amphiboles should be 19 rejected even if subsequent examination establishes 20 whether or not the mineral is fibrous or non-fibrous". 21 So what he's saying there is apparently 22 Pooley, who's been your consultant for a while, is 23 saying a lot of talc should be rejected whether -- if 24 it's got amphiboles, whether they are fibrous or not; 25 correct?
Page 159 1 the PCPC? 2 A That's correct, yes. 3 Q You say: 4 "Please find attached a note to myself from 5 Bill Ashton who is a long serving talc expert in J&J. 6 I showed Bill a draft of the CTPA guide for his 7 comment. 8 As you see, he has some concerns on the 9 matter of tremolite. The issue is whether there should 10 be any concern over non-fibrous tremolite. 11 I have a lot of respect for Bill's views on 12 details such as this and would propose that you might 13 sound out Fred Pooley on this matter". 14 Now, Fred Pooley was a long time consultant 15 to Johnson & Johnson; correct? 16 A Yes. 17 Q Okay. 18 Going back certainly to the early '70s? 19 A Correct. 20 Q Yes. 21 "In the final CTPA monograph -- if the final 22 CTPA monograph is not yet issued to print, could you 23 consider helping resolve this as soon as possible. You 24 will see from the second paragraph of Bill Ashton's 25 letter that there are long-standing and wider issues	Page 161 1 A That's what it reads. 2 Q Okay. 3 "We need clarification on this since it is in 4 conflict with all work here in the US based primarily 5 on the mineral tremolite which is present in trace 6 amounts in many high grade talcs". 7 Now, was tremolite present in the talcs used 8 by Johnson & Johnson from the '60s until through the 9 2000s, or through the -- let's say the '90s? 10 A Okay. We alluded to this earlier in our 11 discussions this morning. 12 If tremolite was present, it was present in 13 the non-asbestos form. What's called the "massive" or 14 "prismatic" form. 15 Q But what your consultant is saying is whether 16 it's the "massive" form or the fibrous form, it should 17 be rejected; correct? 18 A Well, that's apparently what it says here. 19 I've not seen the -- I don't have with me the 20 original CTPA draft specification. 21 It was a draft. I know that. 22 Q Right. 23 A And I was given opportunity to comment, and 24 obviously Dr Pooley had a comment. 25 Dr Pooley's comment, in my opinion, and I do

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1 respect him, he's one of the world's leading geologists
 2 in understanding asbestos and tremolite and all the
 3 other materials that you might find -- it reads to me
 4 that he was being ultra cautious.
 5 And we discussed this earlier today where if
 6 you exclude any amphibole, then you will certainly
 7 exclude any asbestos, but not all amphiboles are
 8 asbestos.
 9 So he's taking the extreme cautious -- the
 10 scientist's approach, which is not unreasonable.
 11 But in this particular case, because the CTFA
 12 specification and the Johnson & Johnson additional work
 13 that's done to examine talc using transmission electron
 14 microscopy and infrared spectroscopy, clearly is able
 15 to separate out tremolite asbestos from the
 16 non-asbestos tremolite.
 17 So in a sense his concerns are not -- not
 18 necessarily valid in this particular case.
 19 Q Well, nine years later when you author the
 20 Process for qualification and approval of new or
 21 alternative sources for cosmetic talc, you actually
 22 adopt that freedom from asbestos and amphibole
 23 minerals; correct?
 24 A And the reason I did that, the individual who's
 25 writing to me was from the Philippines company and I

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1 felt that they did not necessarily have in the
 2 Philippines the sophisticated methodology to take out
 3 any product that may just have had simple amphibole
 4 that was not asbestos.
 5 So when I was writing to the Philippines, I
 6 was taking a very cautious approach, and that's not
 7 unreasonable.
 8 By taking a cautious approach, you say: any
 9 prismatic material would also be excluded, even
 10 amphibole material.
 11 Q Okay.
 12 A So you're taking a precautionary approach.
 13 Q Well, the reason --
 14 A But that was because I was dealing with the
 15 Philippines where the Filipinos may not have had the
 16 sophisticated equipment to separate out the two types
 17 of tremolite.
 18 Q Well, let's be clear, we talked about this with
 19 the first document.
 20 Whether you're writing to the Philippines or
 21 whoever --
 22 A Yeah.
 23 Q -- what you said was:
 24 "There are however certain parameters for
 25 which a minimum standard must be maintained on a global

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1 basis".
 2 Right?
 3 A Yeah.
 4 Q And you said: freedom from asbestos and
 5 amphibole minerals; correct?
 6 A I said that to him, yes.
 7 Q And that's basically what Pooley is saying
 8 here.
 9 Not just the asbestos, the fibrous, but also
 10 the non-fibrous; correct?
 11 A That is correct.
 12 Q Okay.
 13 A And I've explained the rationale for that --
 14 Q You have.
 15 A -- is that in many cases some affiliates may
 16 not have the sophisticated equipment to separate out
 17 the asbestos tremolite from the non-asbestos tremolite.
 18 Q Right.
 19 A So my advice to that particular company was --
 20 it was the Philippines -- was to say: you've got to
 21 take this super-precautionary approach.
 22 Q It was what Fred Pooley suggested to you in
 23 1996?
 24 A It was, but at that time, the company was
 25 already taking that super-precautionary approach by

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1 using transmission electron microscopy in addition to
 2 the CTFA specification.
 3 Q Well, let me -- let me ask you this question.
 4 In 1996, Pooley says don't use -- don't use
 5 it, even if it's got non-fibrous tremolite in it or
 6 amphibole, and Ashton says this is at:
 7 "... conflict with all the work here in the
 8 US based primarily on the mineral tremolite which is
 9 present in trace amounts in many high grade talcs".
 10 A Yes.
 11 Q Before that time, did Johnson & Johnson allow
 12 there to be the presence of massive form amphibole, or
 13 amphibole minerals in its talc ore?
 14 A Okay. Let's phrase it the other way.
 15 The specification has always been freedom
 16 from asbestos, asbestos materials, including asbestos
 17 tremolite.
 18 When you delve deeper, if you get any
 19 suspicion and you go through x-ray diffraction, through
 20 polarized light microscopy, and then down into scanning
 21 electron microscopy, infrared techniques, you can then
 22 exclude asbestos tremolite from the non-asbestos
 23 tremolite and --
 24 Q Here's what I'm asking -- I understand that.
 25 What I'm asking is: before 1996, did Johnson

Page 166 1 & Johnson have a policy to exclude non-fibrous 2 amphiboles in its talc sources? 3 That's all I'm asking. 4 A Okay. 5 The policy was never written in that 6 phraseology. The policy is written to say the company 7 will comply to the CTFA specification, which is to 8 exclude asbestos. 9 It does not go on to talk in detail of 10 different kinds of materials, different kinds of 11 minerals. It just talks about exclusion of asbestos. 12 Period. 13 Q So if Johnson & Johnson had an ore source that 14 had, you know, massive form amphiboles in it, Johnson & 15 Johnson would be okay using that source so long as it 16 passed the CTFA on the final end; right? 17 A The -- I'll repeat it. 18 The CTFA specification demands that there is 19 absence of asbestos. That's it. 20 And there's a whole series of tests and 21 techniques you go on to prove absence of asbestos. 22 So anything that meets that specification 23 could be acceptable, providing it met other parameters. 24 Q Even if the original talc ore had massive 25 amphibole; correct?	Page 168 1 falls to the bottom. 2 So flotation was a way of really raising the 3 quality of the talc so that it feels good on the skin. 4 That was the whole point of the flotation process. 5 Q Sure. 6 So what you're saying is before you even get 7 to flotation, if you had an ore source that had any 8 massive form amphibole in it, that would have been hand 9 picked out before you even get to flotation? 10 A Yes. 11 Q So you would not expect to find any in the 12 flotation? 13 A You would not. 14 Q Okay. 15 Now, is it generally true that, you know, the 16 more of the mineral you find -- let's just say 17 tremolite, okay -- the more of the massive form you 18 find, the higher likelihood it is that you start to get 19 fibrous form, and that's why it's important to try to 20 keep the massive down? 21 A Yeah. I think you do a disservice to the 22 miners. 23 When you're mining talc, my understanding is 24 that the miners can clearly see the difference between 25 talc and non-talc or non-talc rock.
Page 167 1 A Again, we go back to what I explained earlier. 2 Q Well, just answer the question? 3 A Okay. 4 The massive talc ore is separated out at the 5 time of manufacturing and mining to exclude non-talc 6 materials. Anything that comes on the conveyor belt is 7 physically excluded by hand. 8 So you essentially remove those possible 9 contaminants before it even got to the grinding mill. 10 Q Okay. 11 And is the grinding mill before flotation? 12 A Yes. 13 Q So flotation is sort of a purification method; 14 right? 15 A That's a misconception. 16 Flotation is a process whereby you raise the 17 quality of the talc. 18 As I said earlier, talc -- cosmetic talc, you 19 achieve your requirements by getting a high level of 20 plate-like structures, and the plate-like structures, 21 preferably the larger plates, work by sliding over each 22 other. 23 Flotation encourages the large platy material 24 to rise to the top of the tank. They can be separated 25 out and material that doesn't meet that requirement	Page 169 1 They essentially don't go there. They well 2 avoid those areas where there could be non-talc 3 materials. 4 So, essentially, when you're pulling it out 5 of the mine, you're pulling out pretty high grade talc 6 to start with. So you're not even going to go anywhere 7 near non-talc materials, whether they be tremolite or 8 just rock, basically. 9 Q Yeah, but just in a vacuum, the more massive 10 form you have, the higher opportunity you have to have 11 asbestos of that mineral; correct? 12 A Well, let's try and repeat that again. 13 When you're mining this material, you don't 14 go anywhere near the massive form of tremolite or any 15 other rock, quartz or whatever it may be. 16 The talc is very clearly differentiated in 17 the mine. It looks like talc. The white -- off-white 18 rock looks like talc, and the miners know what they're 19 looking for, and there's a clear delineation, a clear 20 separation between talc and minerals that are not talc. 21 And the miners know what they're doing. 22 That's their job. 23 Q All right. 24 I'm going to write on the chart up here, and 25 if I get in your personal space I'm going to apologize

Page 170 1 because we're sort of cramped for some space, but I 2 want everybody to be able to see the camera and 3 yourself and your attorneys; okay? 4 All right. All right. So you what said was, 5 and I'll just put it in black -- you said was -- and 6 let me be clear before I even start writing, is if 7 there's any amphibole, it is picked out by the miners 8 before it even reaches flotation; right? 9 A I didn't say those exact words. 10 What I said was if there are rocks that don't 11 fit the definition of talc, they are pulled out by the 12 miners or they avoid them in the first place. 13 Non-talc ore or non-talc rocks are avoided 14 and if they are caught, then they're picked out. 15 Q Okay. 16 So that would include amphibole asbestos; 17 correct? Or amphibole minerals? 18 A It would include minerals that are clearly not 19 talc. 20 Q Okay. 21 A Yes. 22 Q So those would be picked out before they went 23 into the flotation process? 24 A Yes. 25 Q Okay.	Page 172 1 It is right at the front. Thanks. 2 This will be Exhibit 19. Is that where we 3 are? 4 MS FROST: Seventeen. 5 MR PANATIER: 17. Okay. Here it is. This 6 will be exhibit 17. Here you go, sir. 7 (Exhibit 17 marked for identification) 8 Q So we're just going to kind of make a little 9 record here. Again, this was one of the documents 10 supplied to us by Johnson & Johnson. 11 You can see this is from the United States 12 Public Health Service. This is October 6, 1948; 13 correct? 14 A Yes. 15 Q Okay. 16 And this is a report of -- it says: 17 "The following results were obtained upon 18 completion of analyses of the mineral samples which you 19 submitted for identification and analyses ..." 20 And it's to the State Department -- State of 21 Virginia Department of Public Health; right? 22 A Yeah. 23 Q And you'll notice that for minerals present, 24 there's five samples. 25 Under sample 4 it says:
Page 171 1 So I'm going to write: amphibole minerals 2 would be picked out before flotation. 3 MS FROST: Chris, for purposes of the 4 record -- 5 MR PANATIER: Yes. 6 MS FROST: -- we made an agreement on any 7 objections to questions. 8 MR PANATIER: Applies to this, too. 9 MS FROST: All right. 10 MR PANATIER: Yes. 11 MS FROST: So all of my objections to your 12 writings -- 13 MR PANATIER: Sure. 14 MS FROST: -- and characterizations are 15 reserved to the time at which this transcript or this 16 videotape is attempted to be used in any form. 17 MR PANATIER: Yes, and in fact the way it's 18 being recorded is, if, for instance, you object to this 19 and it comes out, we can just play the witness. 20 MS FROST: Thank you for the clarification. 21 MR PANATIER: Sure. Sure. 22 Q All right. So this is what you've told us. 23 What I want to do is go through some of the 24 records we have; okay? 25 Leah, if you can go ahead and grab number 2?	Page 173 1 "Serpentine and asbestos [sic]". 2 Or it says: 3 "Serpentine Asbestos". 4 Correct? 5 A It does, yes. 6 Q And the little handwritten part says, "VT", and 7 you can see there's a Vermont and an arrow to all the 8 other samples, except for the last one, which says, 9 "New York Talc"; correct? 10 A It does say that, yes. 11 Q Okay. 12 I'm just going to put "VT", because that was 13 what was written. 14 Okay. You can see that set aside, sir. 15 The next one is number 4. 16 Now, the Italian talc that Johnson & Johnson 17 used was the 00000 talc; correct? 18 A Correct, yes. 19 Q So this will be Exhibit 18. 20 (Exhibit 18 marked for identification) 21 Here you go, sir. 22 Now, this is a report to Johnson & Johnson. 23 You can see that on the third page in, or where it says 24 October 15, 1957; do you see that? 25 A Yeah.

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1 Q Okay.

2 So we're going to go: 10.15.57.

3 And this is a study done by the Battelle

4 Memorial Institute; correct?

5 A Correct, yes.

6 Q And you know who they are. They're a

7 scientific research group; right?

8 A They are, yes.

9 Q And they'll do whatever types of studies

10 they're capable of that a company might ask them to

11 perform; correct?

12 A That is correct, yes.

13 Q All right. Okay.

14 So this is from October, '57.

15 If you would, please, sir, turn to the page

16 at the bottom, the Bates stamp ends with 1038.

17 All right. I've highlighted some things to

18 situate us.

19 The top highlight just says:

20 "The comparative physical measurements were

21 made upon sized fractions and whole samples of Italian

22 talc with conventional laboratory devices".

23 And then under Introduction it tells us which

24 talc we're talking about:

25 "The talc currently used by Johnson &

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1 Johnson, obtained from Pinerolo, Italy, is believed to

2 be a blend of five or more different grades of ore,

3 which gives a high quality, lubricious powder".

4 Did I read that right?

5 A You read that correctly, yes.

6 Q The next highlight tells us which ones they're

7 using in these tests:

8 "The measurements of the physical properties

9 of acceptable talc, and their range, have been made

10 upon a series of one kilogram samples of grade 'EGT

11 Extra 00000' ..."

12 Right?

13 A Correct.

14 Q Okay, and that's your talc; correct?

15 A 00000 is J&J talc.

16 Q Okay.

17 Now, go ahead and turn to the next page. It

18 should be the page marked 3 at the top, I'm sorry.

19 The Role of Mineralogical Purity in

20 Lubricity. Do you see that?

21 A Yes.

22 Q It says:

23 "The Italian talc contains from about 97 to

24 more than 99 per cent pure mineral talc. The

25 predominant contaminant is carbonate which is present

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1 in all size fractions, being slightly more abundant in

2 the fines. Among other contaminants, present in trace

3 amounts, are amphiboles, rutile, zircon, apatite, and

4 titanite".

5 Right?

6 A Yes.

7 Q So here you're learning that there's trace

8 amphiboles; right?

9 A Yes.

10 Q In the Italian 00000; correct?

11 A Yes.

12 Q And by the way, amphibole is a general category

13 of certain minerals that are commonly associated with

14 asbestos; correct?

15 A You get amphiboles that are not asbestos,

16 correct. Not asbestos.

17 Q Sure.

18 The ones we're primarily talking about with

19 talc are tremolite, actinolite and anthophyllite; true?

20 A It is possible, yes.

21 Q Those are the ones that usually crop up when

22 they do crop up?

23 A Yeah.

24 Q Fair?

25 Okay. All right, sir. You can set that

Page 177

1 aside.

2 Now, we're going to go a year later. This is

3 5.

4 This will be 19.

5 (Exhibit 19 marked for identification)

6 There you go, sir.

7 I'm sorry to throw them at you, but it's the

8 only way I can get them there.

9 Okay. So this one, sir, do you see this is

10 from January 24, 1958? Right?

11 A Yeah.

12 Q And this is again from Battelle; correct?

13 A Yes.

14 Q To Johnson & Johnson?

15 A Yes, yeah.

16 Q And you can see that for, and we'll write the

17 date up here, this is January 24, 1968.

18 Or, I'm sorry, this may be '58. Let me see

19 if I have the date right. It's tough to read. It's

20 old.

21 It may be '68, so we'll just put 68, so it

22 might be a little bit out of order. But benefit of the

23 doubt.

24 Do you see there on the first page it says

25 Mineralogical Composition of Samples Investigated, and

Page 178 1 for both Italian 2 and 1 it has 1 per cent and trace 2 reflected for tremolite; correct? 3 A Yeah. 4 Q And I'm going to put "TR", because that's 5 usually how they do it, and we'll see some other 6 documents, for trace: tremolite in Italian. 7 Okay. Now, sir, this is in the documents 8 you've reviewed; correct? 9 A I don't think I reviewed this particular one. 10 Q Okay. 11 A Yeah, but -- 12 Q You see this is -- 13 A -- it's not familiar to me. 14 Q You see this is a Johnson & Johnson document? 15 A Yeah, yeah. 16 Q With the Bates label down at the bottom? 17 A Yeah, yeah. 18 Q Okay. 19 And you don't dispute it was supplied to us 20 by Johnson & Johnson? 21 A I do not, no. 22 Q Okay. 23 All right, sir. You can set that aside. 24 Again, we're going through these just so we 25 can have a little basis to talk about some of these	Page 180 1 same samples of 'EGT Extra 00000' talc ..." 2 Correct? 3 A Correct. 4 Q So this is the talc we've been talking about, 5 the Italian talc? 6 A Yes, that's correct. 7 Q All right. 8 If you turn to the next page, please, if you 9 look at the second paragraph, I've got the highlight 10 there: 11 "It occurs as aggregates of talc and 12 contaminants, as acicular and fibrous particles of talc 13 and amphibole, as shards and granules of amphibole or 14 carbonate, and as prismatic grains of titanite, rutile, 15 zircon, apatite, and other [accessories] ... " 16 Correct? 17 Is that what it says? 18 A Yeah. 19 Q Okay. 20 A It says: 21 "Grit ... [occurs as] both oversize and 22 nonplaty talc particles --" 23 Q That's right. 24 A And grit occurs as aggregates of talc and 25 contaminants, yeah.
Page 179 1 other documents. 2 The next one will be number 6. It will be 3 Exhibit 20. 4 (Exhibit 20 marked for identification) 5 We need to assemble a pulley system so we can 6 get these documents across the table. 7 All right. This is again a report from 8 Battelle. This one is May 9, 1958; true? 9 A Yes. 10 Q The report itself, and it looks like it was 11 received a month later? 12 A Yeah. 13 Q Or so. 14 Two months later, July 18, '58? 15 A Yeah. 16 Q That's the -- so that's the date I'll put. 17 A Yes. 18 Q I'll put: 7.18. 19 And then this is 1958. 20 A Okay. 21 Q If you'll turn, please, sir, to the page marked 22 at the bottom, 911 is the Bates stamp. 23 At the very bottom, you can see it says: 24 "Except where otherwise noted, the 25 measurements presented in this report were made on the	Page 181 1 Q And the grit is something that is present in 2 the ore before it's refined; correct? 3 A Yes. 4 Q Okay. 5 So what I'm going to put here is I'm going to 6 write for the grit, just so we're clear, the grit has 7 acicular and fibrous particles of talc and amphibole; 8 correct? 9 A Yes. 10 MS FROST: And if you need to read the whole 11 document -- 12 THE WITNESS: Yeah. 13 MS FROST: -- you can. 14 BY MR PANATIER: 15 Q Then the next paragraph, the highlight says: 16 "The 8 to 10 per cent of nonplaty talc in the 17 Italian material is presumed to be derived from 18 tremolite or enstatite". 19 Does it say that? 20 A It does say that, yes. 21 Q Okay. 22 Down at the bottom: 23 "The Italian No. 1 talc contains from less 24 than 1 per cent to about 3 per cent of contaminants. 25 The contamination is natural and consists mostly of

Page 182 1 carbonate with minor amphibole and rare accessory 2 minerals". 3 Did I read that right? 4 A You did, yes. 5 Q Down at the bottom: 6 "The amphibole component has been established 7 to be the variety tremolite ..." 8 Right? 9 A Correct, yeah. 10 Q Now, I think this is one where we can go -- we 11 might be able to go right to the very end. Let's see 12 ... 13 Right. Let's go to page 5. 14 Five at the top; okay? 15 Now, they're running floats to try to get the 16 grittiness down; right? 17 A Yes. 18 Q Okay. 19 And here under Table 3, what they do is they 20 analyze the amount of different non-talc elements in 21 the talc as they float it, right, as they refine it? 22 A Yes. 23 Q Correct? 24 A Right. 25 Q And here you can see that Italian 1 and Italian	Page 184 1 Q Okay? 2 A -- there is what's described as "trace 3 tremolite". 4 Q All right. 5 A Non-asbestos tremolite. 6 Q Does it say non-asbestos? 7 A No, but we know that from many, many audits of 8 the mine. 9 Q Where does it say non-asbestos in that 10 document? 11 A It does not say it in the document, but we know 12 from separate audits of the mine that the mine does not 13 contain asbestos tremolite. 14 Q All right, and we'll get to whether or not it 15 was asbestos or not at some other point. 16 You can set that aside, sir. 17 This next one will be Exhibit 21. 18 (Exhibit 21 marked for identification) 19 There you go, sir. We're going to flip the 20 page here. 21 Now, sir, this one is also from the Battelle 22 Memorial Institute; correct? 23 A Yes. 24 Q It is a document dated -- the document itself 25 is dated May 23, 1958; true?
Page 183 1 2 have been floated and they tell you the amount of 2 dolomite talc, tremolite, et cetera, in the feed, which 3 is what goes in, and the float; correct? 4 A Yes. 5 Q Okay. 6 And both Italian 1 and Italian 2 contain 7 tremolite in both the feed and the float; correct? 8 A Amongst other things, yes. 9 Q Sure. 10 So there's tremolite. 11 And what does "feed" mean? 12 A Feed is the initial ground ore. 13 Q Okay. 14 Now, that's the stuff that's supposed to be 15 picked clean by the miners already; right? 16 A Well, let's be clear, the float -- sorry, the 17 feed contains 88 to 90 per cent platy talc, and the 18 float, 95 per cent platy talc, 8-9 per cent non-platy 19 talc and 4 per cent after floating. 20 So, essentially, what flotation is doing is 21 removing non-platy talc. 22 Q But even after it's floated, even after it's 23 picked by the miners and even after it's floated, it 24 still has trace tremolite; correct? 25 A In this particular case from 1958 --	Page 185 1 A True. 2 Q And then it was received by Johnson & Johnson, 3 or it was mailed to Johnson & Johnson on the same date, 4 May 28, '58; correct? 5 A Correct. 6 Q All right. 7 Again, you can see in that cover letter 8 they're still talking about floating the Italian talc; 9 true? 10 A Yes. 11 Q Okay. 12 Please turn, if you will, to page, it's at 13 the bottom 1347; okay? 14 You can see that there's a -- they're just 15 situating us to what we're looking at. 16 They say: 17 "Italian No. 2 talc likewise responded 18 favorably to flotation. Two methods were developed 19 which yielded products that contained 96 to 97 per cent 20 platy talc and 2 to 3 per cent of fibrous talc. 21 Mineralogically, these products are superior to the 22 Italian No. 1 talc which is being used by Johnson and 23 Johnson for baby powder". 24 Right? 25 A Yes.

Page 186 1 Q Okay. 2 Now, this was May 23, '58. 3 If you can turn, sir, to the bottom, the 4 Bates number -- well, it's 2 at the top, the Bates is 5 cut off. So it's page 2 at the top and it's a table. 6 Okay. So you can see here again, sir, 7 they're floating several different types. They're 8 floating Oasis, Stone Creek, but also Italian No. 1 and 9 2; right? 10 A Yes. 11 Q And the Italian talc again is shown to have 12 between trace and 1 per cent tremolite; true? 13 A Yes. 14 Q After flotation; correct? 15 A Yeah. 16 Q Now, sir, if you will turn to the page at the 17 bottom, the Bates label is 1364. 18 A What page number is that? 19 Q It doesn't have a page number. It's 20 Appendix -- it's Table A-1 and A-2. It's like an 21 appendix. 22 A Okay. Got it. 23 MS FROST: Can you repeat the Bates number, 24 please? 25 MR PANATIER: Yeah. 1364.	Page 188 1 necessarily -- I would necessarily use. You're dealing 2 with platy talc and non-platy talc. 3 Would I call it a contaminant? No, it's 4 still talc in many cases. In most cases, it's the 5 non-platy talc. 6 Q That's fine. 7 I mean, we can go back to the first Battelle 8 document we looked at. 9 A Yeah. 10 Q They called it "contaminant"? 11 A They did, they did, but if it's non-platy talc, 12 it's still talc. 13 Q Okay. That's fine. 14 But what we're seeing here is -- now, this is 15 just 1958 -- they run 30 different tests, 30 to 31 16 different tests, and they find tremolite in trace to 17 about 4 per cent in 30 of them; right? 18 A Yes. 19 Q Okay. You can set that aside, sir. 20 The next document is number 8. 21 This will be Exhibit 22. 22 (Exhibit 22 marked for identification) 23 Here you go, sir. 24 Okay. So this here is a report on a trip to 25 Italy and it's dated February 17, 1959; correct?
Page 187 1 Q Okay. So you can see on that table they did 2 about a little more than 30 tests there where they 3 floated the feed a bunch of times to analyze what was 4 in the floats; correct? 5 A Yes. 6 Q Okay. 7 And you can count for yourself if you like, 8 but what I get is about 30 times they measured 9 tremolite in the feed or the floats between -- anywhere 10 between one non-detect -- looks like one non-detect, 11 all the way up to 4 per cent, or 6 per cent in the 12 underflow, but let's just talk about the flow. So 13 4 per cent. 14 Is that about right? 15 A Yeah, that's part of the story. 16 I mean, the whole story, of course, relates 17 to raising the percentage of platy talc. 18 Q Sure. 19 A That's the whole point of the flotation 20 process. 21 Q Right. 22 If you decrease the contaminants, you 23 increase the amount of talc; right? 24 A Yeah. 25 The word "contaminants" isn't one you'd	Page 189 1 A Yes. 2 Q And this is a meeting between Johnson & Johnson 3 individuals and the owners of the Val Chisone mine; 4 right? 5 A That would appear to be the case, yes. 6 Q Okay. 7 The only reason I'm bringing this up is it 8 tells us about the grades that they were using it. 9 So under Synopsis it says: 10 "It was learned that all of the high-grade 11 talc comes from one mine (with rare exception). It was 12 also learned that Grade 2 is the same as run-of-mine, 13 and that Grade 1 is not a specifically hand selected 14 product". 15 Now, what does "run-of-mine" mean? 16 A I don't know. I'm not a geologist. 17 Q Okay. 18 A So I couldn't answer that question. 19 Q Now, what we do know is that Grade 1 from the 20 previous Battelle is what was being used in Johnson's 21 Baby Powder; correct? 22 A Yes. 23 Q And right here what it says is that: 24 "... Grade 1 is not a specifically hand 25 selected product".

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1 Correct?

2 A That's what it says.

3 Q Okay.

4 Do you dispute that?

5 A That's what it says.

6 Q All right.

7 A I don't dispute what it says here.

8 Q Okay.

9 Go to page 2, please. We get a little more

10 history on the mine:

11 "The Val Chisone company brings in millions

12 of dollars per year, much of which goes to the personal

13 fortunes of the stockholders. The Villa family is very

14 wealthy and holds a unique position in the modern world

15 ... it controls the Germenasca valley in an almost

16 feudal sense".

17 Now, the Germenasca valley is the valley

18 where the Val Chisone mine is located; correct?

19 A Yes.

20 Q All right.

21 Go to the next highlight:

22 "The Val Chisone owners --"

23 And it's actually Val Chisone, I think.

24 A Yes.

25 Q "The Val Chisone owners were worried lest we

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1 had found poisonous minerals in the talc or had

2 otherwise been displeased. When told we merely had a

3 scheme for improving their excellent talc, they were

4 most anxious to cooperate. Masci -- M-A-S-C-I --

5 explained that our problem was not a matter of

6 dissatisfaction, but that about 1/3 of the doctors are

7 presently advising against the use of baby talc,

8 inasmuch as starches and oils have a greater purity and

9 there is no dangerous dust to inhale".

10 So this is 1959. Johnson & Johnson is

11 reporting that they're telling the mine owners: hey,

12 doctors are recommending against the use of powder;

13 correct?

14 A That's what it says here, yes.

15 Q And that there's no dangerous dust to inhale;

16 correct?

17 A That's what it says here.

18 Q Okay.

19 Let's see. We may be able to skip ahead. We

20 can. You can set that aside.

21 The next document is -- it's number 9, Leah.

22 This will be Exhibit 23.

23 (Exhibit 23 marked for identification)

24 Here you go, sir.

25 A Thank you.

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1 Q All right.

2 Again, we have another report from Battelle;

3 correct?

4 A Correct.

5 Q And this one is dated -- I'm just going to

6 write up here: doctors advising against -- and for

7 fairness, I'll write "some doctors".

8 Okay. July 31, 1959.

9 I'm sure you've had a chance to look at it.

10 They're testing the floatation again; correct?

11 A Correct, yes.

12 Q Okay.

13 Now, if you go to page 6, okay, they talk

14 about how they're evaluating the samples.

15 It says:

16 "A talc sample to be evaluated is dusted onto

17 a glass slide which has been spotted with oil having

18 refractive index of 1.520".

19 My point here is they're using optical

20 microscopy to evaluate this talc; correct?

21 A Yes.

22 Q Okay.

23 That's not -- that's not XRD; correct?

24 A No, no, it's optical microscopy.

25 Q Okay.

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1 And then you can see on the next page --

2 A With a polarizing microscope. So it's

3 polarized light microscopy.

4 Q That's right.

5 A Yeah.

6 Q On the top of the next page, again, just to get

7 our bearings:

8 "Light is then adjusted to reflect upward

9 through the sample to ... [each] eyepiece. The

10 eyepiece having two crosshairs fixed at 90 degrees to

11 each other is focused on the field. Particles which

12 coincide with the crosshairs are counted and classified

13 as platy talc, fibrous talc, dolomite, or tremolite and

14 sometimes accessory minerals".

15 Okay? So they're using the optical

16 microscopy to evaluate the different accessory

17 minerals, including tremolite; true?

18 A True.

19 Q All right.

20 Go to the next page, please, page 8.

21 Here, just with regard to the Italian No. 2,

22 it says:

23 "The mineralogy of Italian No. 2 talc is such

24 that most of the non-platy talc and tremolite are finer

25 than the major part of the powder".

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1 Now, are you aware from reviewing the
2 documents that sometimes the talc itself would obscure
3 accessory minerals that were there, making it harder to
4 see them?
5 A It depends how they -- if you're looking at it
6 under light microscopy, it depends how that is
7 prepared.
8 The aim must always be to get clear
9 separation, so that when you look at it under a light
10 microscope, the particles are well separated and not
11 sitting on top of each other.
12 That is not difficult for a good
13 microscopist.
14 Q Right.
15 A So you shouldn't -- you shouldn't be hiding
16 them, basically. That's what I'm saying.
17 It should be quite possible to place them on
18 the microscope slide so that they're sufficiently
19 separated.
20 Q Okay.
21 So you need to prepare them in a way so you
22 can actually see the other minerals if they're there;
23 correct?
24 A Yes.
25 Q Okay.

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1 Go ahead and turn to Appendix 1 and 2.
2 Again, at the very back. Should be the last two or
3 three pages. They're marked 902 and 903.
4 A Okay.
5 Q Did you find those?
6 A Yes.
7 Q Okay.
8 Again, they've tested a number of floats
9 here. So they're testing floats with Italian; correct?
10 A Yeah.
11 Q And here for every time they run a flotation,
12 they're evaluating whether or not there's tremolite;
13 correct?
14 A They are, yes.
15 Q Okay.
16 And here, sir, you can see that in -- and I
17 counted them up, and you can disagree if you want, or
18 if you want to take a moment and count them -- I
19 counted approximately 63 different results
20 demonstrating between trace and 2 per cent tremolite in
21 the float.
22 Can you agree with that?
23 A That's -- that's what it says here, yeah.
24 Q Now, that's 1959; correct?
25 A Yes.

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1 Q All right. We're moving right along.
2 Number 10, please. This will be Exhibit 24.
3 (Exhibit 24 marked for identification)
4 All right, sir. This one is again from the
5 Battelle Memorial Institute; right?
6 A Yeah.
7 Q This one is August 31, 1959, so a month after
8 the last one we looked at; right?
9 A Yes.
10 Q Okay.
11 Now, here they're looking at something called
12 the ultrasonic comminution of talc.
13 As a scientist, what does "comminution" mean?
14 A It means you can break down -- break down a
15 particle or series of particles by, in this case, using
16 ultrasound.
17 Q Okay.
18 A Break down.
19 Q Right.
20 And here I believe they're still looking at
21 Italian. Well, let's double check ...
22 By the way, did they ever -- did Johnson &
23 Johnson ever use ultrasonic comminution to try to break
24 down the presence of amphiboles in the talc?
25 A I'm not aware that that was -- ever been

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1 adopted.
2 Q So this was an evaluation of potentially doing
3 that?
4 A Well, I've not seen this document before. I'd
5 need to read it thoroughly, which is quite a lot of
6 pages.
7 But, you know, I'm not aware that comminution
8 using ultrasound has ever been used within the
9 corporation.
10 This is a research paper published by
11 Battelle for some work they were doing for Johnson &
12 Johnson, or a presentation for Johnson & Johnson.
13 But whether it ever went any further, I do
14 not know, and I don't think it did.
15 Q Okay.
16 Actually, if you go to page, it's 10 at the
17 top, this will tell us what we're looking at.
18 Do you see they have a photo there of
19 plane-polarized light where they're looking at the
20 talc?
21 A Yes.
22 Q And then down below that they say:
23 "For instance, the classification for removal
24 of fines from the Italian No. 2 talc has been carried
25 out in the talc pilot plant, [increasing] ... the platy

Page 198 1 content from 90 to 95 per cent?" 2 A Yeah. 3 Q All right. 4 So now if we go back to page 9, it tells us 5 what their results were here; all right? 6 And here they found -- it says Table 5, 7 Mineral Character of Series I and Series II Samples, 8 anywhere from trace to 5 per cent; correct? 9 A Yes. 10 Q Tremolite; right? 11 A That's what it says. 12 Q You can set that aside, sir. 13 Next one's 11. 14 Do you know what? We don't need to do that 15 one. We can skip it. It's pretty much a repeat. 16 Let's try 12. 17 So this will be Exhibit 25. 18 (Exhibit 25 marked for identification) 19 All right, sir. Here we go. 20 A Thank you. 21 Q So, again, this is another report from 22 Battelle. Same folks we've been talking about; right? 23 A Yeah. 24 Q And this is from December 31, 1959; correct? 25 A That's the date.	Page 200 1 Improve it, in other words. 2 Q Right. 3 So they were trying to get grit out, they're 4 trying to get non-talc stuff out of it? 5 A Yes, or even fibrous, rolled talc. 6 (Reporter clarification) 7 Rolled talc. 8 Talc -- if you take a plate of talc, just for 9 the benefit of the court, it's normally that shape 10 (indicating) but sometimes it can roll up like a rolled 11 newspaper, and so it appears like that (indicating). 12 So you'd remove the fibrous talc or rolled 13 talc. 14 Q Right. 15 So if you go to page 4, they have Sampling 16 and Mineralogical Evaluation of Italian Run-of-Mine 17 Talc, and it says: 18 "[The] results of the microscope analysis 19 show that the Italian run-of-mine talc was almost 20 identical to the Italian No. 2 talc in mineral 21 composition. It contained about 90 per cent platy 22 talc, 6 per cent nonplaty talc, 2 per cent dolomite and 23 2 per cent tremolite. The Italian No. 2 contained 24 about 90 per cent platy talc, 6 per cent nonplaty talc, 25 3 per cent dolomite, and 1 per cent tremolite".
Page 199 1 Q Received by or sent to Johnson & Johnson 2 January 15, 1960; right? 3 A Yes. 4 Q So I'll put that date here: 1.15.60. 5 And here if you turn to just the first page 6 of the report, this is actually to Bill Ashton, is it 7 not? 8 A Yes. 9 Q Okay. All right. 10 On the title page, which I think is the next 11 page, it is the Progress Report on The Physical 12 Concentration of Talc Ores, the Floatation of Italian 13 Run-Of-Mine Talc; right? 14 A That's the title. 15 Q Okay. 16 So, again, they're studying flotation; right? 17 A They are, yes. 18 Q And then, if you turn to the next page, page 2, 19 one of their goals, it says, is: 20 "To establish that the beneficiation process 21 developed for Italian No. 2 talc is also applicable to 22 the run-of-mine talc". 23 Now, what does "beneficiation" mean? 24 A It's from the Latin bene, good, and it means 25 make it -- make it more good, or make it better.	Page 201 1 Right? 2 A That's what it reads, yes. 3 Q Okay. Right. 4 So let's go to the floats. Okay. That will 5 start on page 22. 6 Can you see there they've got -- what they do 7 is they tell you what ends up in the floats and then 8 what is in the underflow. 9 I take it the underflow is all the stuff they 10 don't want; right? 11 A Yeah, the underflow is the stuff that drops 12 down to the bottom. 13 Q And so typically you see higher percentages of 14 the stuff they don't want in the underflow and lower 15 percentages in the flow; correct? 16 A Yes. 17 Q Okay. 18 So, for instance, on page 22, they ran test 19 88, and they did two floats and they found 1 to 2 20 per cent -- or, actually, they found 3 per cent 21 tremolite in the underflow and less than 1 per cent 22 tremolite in the floats; correct? 23 A Yes. 24 Q So the tremolite's been reduced, but it's not 25 been removed; correct?

Page 202 1 A Correct. 2 Q All right. 3 If you can, sir, let's go to Appendix 1 at 4 the back. That is 839. The Bates number is 839. 5 Looks like about 28 results where they've 6 analyzed for tremolite in the float; correct? 7 A They have. 8 Q As well as some in the underflow; true? 9 A Yes, true. 10 Q Okay. 11 And in all 28 they still have -- where they 12 did an analysis, they still found tremolite; correct? 13 A Typically, yes, less than 1 per cent. 14 Q And this would be from trace to -- 15 A Less than 1 per cent. Well, there's one with 2 16 per cent. 17 Q 2 per cent, but most were less than 1 per cent. 18 There's a few that are 1; correct? 19 A Correct. 20 Q So I'm going to put: real small, small trace to 21 2 per cent. 22 All right, sir. You can set that one aside. 23 The next document is document 13. This will 24 be Exhibit 26. 25 (Exhibit 26 marked for identification)	Page 204 1 A Yes. 2 Q Right. 3 I am going to put: JBP for Johnson's Baby 4 Powder off shelf. 5 And they analyzed that; right? 6 A They did. 7 Q And they find trace tremolite; correct? 8 A That's what it says here. 9 Q At this point, do you know whether or not 10 Johnson & Johnson decided to notify the public or issue 11 a warning or a recall regarding Johnson's Baby Powder? 12 A I don't know the answer to that question. 13 Q Okay. 14 Right, you can set that aside, sir. 15 Number 14. This will be Exhibit 27. 16 (Exhibit 27 marked for identification) 17 There you go, sir. 18 A Thank you. 19 Q All right, sir. We have another report from 20 Battelle. This is April 12, 1960. 21 This one says: 22 "All of the experiments discussed in this 23 report were ... [used] using Italian No. 2 ..." 24 Okay? So we know this is Italian. 25 And they've just given us their summary
Page 203 1 There you go, sir. I'll go ahead and flip 2 this over. 3 Again, this is another report from Battelle; 4 right? 5 A Yes. 6 Q Dated March 8, 1960; correct? 7 A Yes. 8 Q If you go to the page marked 13 at the top? 9 Found it? It's a -- should be a table when you find 10 it. 11 A Yeah. Found it. 12 Q Now, again, they're looking at the processing 13 of the talc at different stages; right? 14 A Yes. 15 Q And under flotation tailings, they've got 1 to 16 2 per cent tremolite; right? 17 Right? 18 A Yes, yes, yes. 19 Q But they also went and bought Johnson's Baby 20 Powder or Johnson & Johnson off the shelf, didn't they? 21 A They did, yes. 22 Q And it was a 1958 sample; right? 23 A Yeah. 24 Q So we'll call that 1958, and that's got to be 25 Johnson's Baby Powder at that point; right?	Page 205 1 table; correct? 2 A Yes. 3 Q And they've performed -- it looks to me -- it 4 looks like about 22 different analyses of different 5 parts of the process; right? 6 A Are we talking about the table on page-- Table 7 2? 8 Q Yeah. It looks like they're trying it with 9 different reagents that they're adding -- 10 A That's correct, yes. 11 Q -- right? 12 A Yes, yes. 13 Q And so they've tested it every time with those 14 different reagents added? 15 A Yes. 16 Q Correct? 17 And they've got 22, and in 21 they find 18 tremolite; correct? 19 A It's described as trace, yes. 20 Q Yes. 21 So it's there; correct? 22 A Yes. 23 Q And I'll put "TR", as we have. 24 Now, they also have some that say "less than 25 1", so that must mean between just less than 1 and

Page 206 1 trace; right? 2 A Yes. Whatever that means. 3 Q Yeah. 4 A But yes. 5 Q Okay. 6 Right, sir. You can set that aside. 7 MS FROST: We've been going right at an hour. 8 MR PANATIER: Let's stop. Let's take a 9 break. 10 MS FROST: Okay. 11 MR PANATIER: I could use a break. 12 (Off the record at 2:30 pm) 13 (On the record at 2:44 pm) 14 MR PANATIER: All right. 15 A pretty document intensive day. I apologize 16 for that. 17 THE WITNESS: It's okay. 18 MR PANATIER: The next one is 15. This is 19 Exhibit 28. 20 (Exhibit 28 marked for identification) 21 Q All right. Now, before we get into this one, 22 there's a few different deposits, or a few different 23 mines in Vermont that Johnson & Johnson ultimately 24 pulled talc from; is that correct? 25 A Johnson & Johnson's cosmetic talc is pulled	Page 208 1 A No, I thought there was only two. 2 Q Okay. 3 A Hammondsville and Argonaut. 4 Q Okay. 5 A But, you know, I stand corrected if otherwise. 6 Q That's fine, and we can -- we can look at 7 those of those at some point. 8 Now, this is June 6, 1961. Again, it's from 9 Battelle; right? 10 A Yeah. 11 Q And this is a report on various deposits. One 12 is the Gouverneur deposit in New York. 13 Johnson & Johnson never used that one; right? 14 A Correct. Johnson & Johnson never used the 15 Gouverneur mine. 16 Q Okay. 17 And then if you turn to page 2 there's the 18 Hammondsville Vermont deposit; right? 19 A Yeah. 20 Q And so Battelle does another flotation test on 21 Hammondsville ore; correct? 22 A That's what it reads here, yes. Yeah. 23 Q And you can see that the results of their 24 flotation for Hammondsville include "altered 25 amphiboles" that are traced; right?
Page 207 1 from two, maybe three, mines. 2 Q Okay. 3 A There is some distance away from the cosmetic 4 mines, certainly a -- well, maybe more than one, 5 industrial talc mine. 6 Q Okay. 7 The mines that Johnson & Johnson pulled their 8 cosmetic talc from were Hammondsville; right? 9 A Yeah. 10 Q Argonaut? 11 A Yes. 12 Q At some point, what about Frost Bite? 13 A No, I'm not aware of that one. 14 Q Rainbow? 15 A No, it's not in -- it's not in any of the 16 records I've reviewed. 17 Hammondsville, Argonaut, yes. 18 Q Okay. 19 A But not those others. 20 They're certainly not familiar. 21 Q Okay, and we'll get some other documents that 22 address those. 23 A Mmm. 24 Q We can sort that out. 25 Any others that I'm not thinking of?	Page 209 1 A Yeah. 2 Q And I'm just going to put -- and I know there 3 was also a Ham mine mined somewhere; right? 4 A Yeah. 5 Q So there was Hammondsville and Ham; correct? 6 A Yeah. But, again, I couldn't be certain as to 7 whether the Ham mine wasn't the industrial mine. 8 Q Okay. 9 I'm going to put: Ham, period, here. 10 Our understanding is that's going to be 11 Hammondsville; okay? 12 A Okay. 13 Q All right. 14 And they found altered amphibole trace; 15 correct? 16 A Yeah. 17 Q Then if you turn the page, it says 18 Recommendations: 19 "Excluding the matters of reserves and 20 economics, the Hammondsville deposit appears preferable 21 mineralogically inasmuch as the talc platelets are 22 flatter and more equidimensional, and rutile and 23 carbonate are known to be removable by beneficiation. 24 Tremolite, which is present in the Gouverneur product, 25 is a decidedly objectionable needle-like particle".

Page 210 1 Right? 2 A That's what it reads, yes. 3 Q All right. 4 And you've been talking about that. The 5 needle-like stuff is what you do not want; right? 6 A You do not want it if it's asbestos. 7 Q Okay. 8 So if it's tremolite and it's in the shape of 9 asbestos, needle-like, you do not want that; right? 10 A Yes. 11 Q Okay. All right. 12 Next document, 16. 13 This will be Exhibit 29. 14 (Exhibit 29 marked for identification) 15 All right, sir. So this is another report 16 from the Battelle Institute to Johnson & Johnson; 17 correct? 18 A Yes, that's correct. 19 Q This is August 25 of '61 and again they're 20 doing more evaluation of the Hammondsville deposit; 21 correct? 22 A Yes. 23 Q Was the Hammondsville deposit -- did that one 24 come online in terms of supplying talc to Johnson & 25 Johnson before or after Argonaut?	Page 212 1 per cent altered amphiboles; right? 2 A Yes. 3 Q Right, sir. You can set that aside. 4 The next document is 17. This will be 5 Exhibit 30. 6 (Exhibit 30 marked for identification) 7 There you go, sir. October 13, 1961; 8 correct? 9 A Yes. 10 Q Again, another report from Battelle to Johnson 11 & Johnson; true? 12 A Yes. 13 Q Okay. 14 If you go to the second page, and again this 15 is an old document, so I'll apologize to what it looks 16 like on the second page, but I got it from you guys, so 17 ... 18 Anyway, page 2. It says Mineral Purity, and 19 I'm going to read this, and if you disagree with my 20 translation of the copy, you let me know; okay? 21 "Natural ores or beneficiation products 22 suitable for baby powder meeting Johnson & Johnson's 23 standards (talc from Pinorolo, Italy) should have a 24 composition as determined by petrographic count ..." 25 Now that's a -- petrographic is an optical
Page 211 1 A I believe it was before. 2 Q Okay. 3 A Yeah. 4 Q And I think there's some documents that will 5 help us settle that, but I think you're right. 6 So, again, they're looking at flotation for 7 Hammondsville talc; correct? 8 A Yes. 9 Q Right. 10 If you go to the second page. 11 Now, here they report a: 12 "... poor recovery [for the] ... composite 13 sample shows a disproportionately high mica and 14 amphibole contamination". 15 Now, what do you think that means, a poor 16 recovery of the sample? 17 A My guess is -- obviously it's a geologist's 18 expression -- is that there wasn't much talc there. 19 In fact, if we look further down, it 20 describes platy talc at 60 to 65 per cent. 21 Q Okay. 22 A So what it means is there was quite a lot of 23 non-talc material there. 24 Q Again, they find, and I'm going to put "VT 25 Hammondsville" -- in the ore, they find trace to 1	Page 213 1 microscope; correct? 2 A It is, yes. 3 Q "... equivalent to or better than the following 4 ..." 5 And it lists: 6 "Total talc ... 7 Platy talc ... 8 Nonplaty talc ... 9 Carbonates ... 10 Tremolite [and] other amphiboles ... 11 Opaques ... 12 Nonwhite minerals ... 13 Accessory minerals ... [and] 14 Total nontalc containments ..." 15 Right? 16 A Yes, that's what it reads. 17 Q Okay. 18 A Yes. 19 Q So it says that the ores or the beneficiation 20 products suitable for baby powder, okay, have to be 21 equivalent to or better than trace tremolite; right? 22 Right? 23 A Yes. 24 Q So what I wrote is: for Johnson & Johnson Baby 25 Powder, equivalent or better than trace tremolite.

Page 214 1 Right? 2 A Yes. 3 Q So at least here in 1961, when it came to the 4 mineral tremolite, Johnson & Johnson was fine with 5 trace tremolite; right? 6 A Yes. 7 Q Based on the global specification you authored 8 in 2005, this source would not be approved today for 9 use in baby powder; correct? 10 A No, that's not correct. 11 Again, you're conflating the knowledge and 12 the situation in 2005 versus that from 44 years 13 previously, 1961. 14 What -- my authoring in 2005 was to a minor 15 affiliate in the Philippines to advise that, just to be 16 double sure, that we avoided amphibole in that -- the 17 particular supply that they were looking for, simply 18 because they did not have the facility to separate out 19 amphibole that was asbestos versus non-asbestos 20 amphibole. 21 Q You can set that aside. 22 A Yeah. 23 Q What you wrote in 2005 was: 24 "There are however certain parameters for 25 which a minimum standard must be maintained on a global	Page 216 1 a way of ensuring that a minor affiliate with limited 2 technical expertise was always on the right side of 3 safe. 4 Q Okay. 5 So I guess the reverse of my question, then, 6 is: today if Johnson & Johnson were evaluating these 7 two sources for talc, they would be approved? 8 A Today, and even as far back as the early 1970s, 9 we've had the facility in the United States and in 10 Europe to look at the minerals in detail. 11 And so if you find tremolite in an amphibole 12 form, and you can then go on and look further using 13 very sophisticated techniques such as infrared, optical 14 microscopy, x-ray diffraction, and particularly 15 transmission electron microscopy -- you can today 16 determine if those traces of tremolite would be 17 acceptable. 18 And so, to answer your question, today, if we 19 were evaluating those mines, we would say, based on the 20 absence of asbestos but the presence possibly of trace, 21 maybe parts per million, of tremolite in a non-asbestos 22 form, they would be acceptable. 23 Q Okay. 24 So when you said "global basis", you just 25 meant Philippines?
Page 215 1 basis. These consist of freedom from asbestos and 2 amphibole minerals". 3 Now, we have shown lots of amphibole 4 minerals, correct, in the '50s and '60s; right? 5 A That was the position in the 1950s and '60s, 6 yes. 7 Q I understand. 8 If, and I understand we're talking about your 9 2005 document and then we're talking about back in the 10 '50s and '60s -- if Johnson & Johnson was evaluating 11 these mines today, the Italian and the Vermont, they 12 would not meet the global specification for freedom 13 from amphibole minerals; correct? 14 A The global specification, that letter was 15 written for the benefit of an affiliate in the 16 Philippines. 17 It was not intended to direct or to set a 18 standard for the United States or European countries. 19 It was for a small affiliate who had very 20 limited facilities to determine the difference between 21 amphiboles which were asbestos and amphiboles which 22 were not asbestos, and it was done basically to ensure 23 that they got nowhere near having any issues. 24 I mean, the key thing about Johnson's 25 products is that they must always be safe, and that was	Page 217 1 A I was -- I was writing in my position at the 2 time as Global Director using authority to tell the 3 Philippines to basically back off and don't go anywhere 4 near anything where you felt unable to be sure that you 5 would get no asbestos there. 6 The way to do that with the Philippines was 7 to stretch the direction, if you like, to not only 8 exclude asbestos, but also to exclude amphibole, which 9 may or may not be asbestos. 10 Q Okay. 11 Now, one of the first things we did when we 12 started our chart here was in 1958 -- remember the 13 document -- said that the grit contained acicular and 14 fibrous particles of amphibole, okay, and there was 15 tremolite in the feed and the float from this. 16 Do you recall that? 17 A Yes. 18 Q Okay. 19 And fibrous particles of amphibole is 20 asbestos; correct? 21 A Not necessarily, no. Absolutely not. 22 In fact, we've done later audits from the 23 Italian mine to show that those amphiboles in a 24 crystalline form may not necessarily be asbestos, just 25 because it says fibrous.

Page 218 1 Tremolite exists in what's called a prismatic 2 form to a large extent, and that can be confused with 3 asbestos -- asbestiform or fibrous. 4 In this particular case, we know that from 5 the Italian mine that the tremolite present, based on 6 many, many later evaluations by expert geologists, is 7 not in the asbestos form. 8 Q So we're not going to see any documents from 9 Johnson & Johnson that say that there was any asbestos 10 or asbestiform -- asbestiform minerals coming out of 11 Italy? 12 A To my knowledge, there was no asbestos coming 13 out of material from Italy. 14 Q Okay. 15 A Asbestos. 16 Q Or Vermont? 17 A Or Vermont. 18 Q Okay. All right. 19 This is the next document. It's Exhibit 31. 20 (Exhibit 31 marked for identification) 21 That is May 27, '63. 22 And, again, here there's a petrographic, 23 which means optical microscope; right? 24 A Yes. 25 Q Evaluation of Vermont talc, right, with trace	Page 220 1 important industries. 2 Q So what you're saying is this report to Johnson 3 & Johnson might have been a report of a mine of some of 4 the other 50 mines that they were never interested in; 5 right? 6 A Yeah. I think what's important for the court 7 to understand that a company like Johnson & Johnson 8 regularly received talc samples from all over the 9 world, from India, Africa, north America, Europe: 10 please evaluate this talc. 11 And so there's nothing unusual in sending a 12 sample of talc to Battelle or any other institute. 13 Q Okay. You can set that aside. 14 Of course, that's not a -- that's not African 15 or -- 16 A No, that's Vermont. 17 Q -- south American. It's Vermont? 18 A Like I say, 50 mines to my knowledge in 19 Vermont. 20 There's no record that it actually came from 21 the grade 66 quality that J&J was using five years 22 later. 23 Q Sure. 24 The West Windsor talc plant was the plant 25 that was processing talc for J&J; correct?
Page 219 1 amphibole; correct? 2 A Well, it's a talc from Vermont. 3 It's worth recording for the court that, to 4 my knowledge, there's at least 50 mines in Vermont. 5 I don't know what was being examined in 1963, 6 which mine; whether it was one that J&J would later 7 take talc from. I don't know. 8 Q Well, it's to Bill Ashton at Johnson & Johnson; 9 right? 10 A Yeah, yeah. 11 Q Okay. 12 And what we have seen is that they're getting 13 analyses of the Hammondsville mine; right? 14 A Yeah. 15 Q Which they did take talc from; right? 16 A At a later date. 17 Q That had trace amphibole in it; correct? 18 A Yes, at a later date, yeah. 19 Q Right. 20 And this one is a report of Vermont talc with 21 trace amphibole in it; correct? 22 A It is, but there's nowhere here that it says 23 it's Johnson's Baby Powder. 24 As I've said before, there were at least 50 25 talc mines in the State of Vermont. It's one of their	Page 221 1 A That is correct, yes. 2 Q Okay. 3 (Exhibit 32 marked for identification) 4 So you can see this is a research report from 5 April 7, 1966; do you see that? 6 A Yes. 7 Q And it's called Characterization of Flotation 8 Tailings from the West Windsor Talc Plant. 9 That's the Johnson & Johnson talc plant; 10 right? 11 A Yes. 12 Q Because Johnson & Johnson owned the mine; 13 right? 14 A They did. 15 Q Okay. 16 A Yes. 17 Q So this is April 7, '66. 18 This is again from Battelle Memorial 19 Institute; right? 20 A It is, yes. 21 Q And if you turn to page 11, it's talking about 22 Hammondsville talc; right? 23 A Yes. 24 Q So we know it's talking about the mine where 25 Johnson & Johnson got their talc; right?

Page 222 1 A Yeah. 2 Q And it says: 3 "... Hammersmith talc ore contains a major 4 component of talc, some of which is associated with 5 serpentine ..." 6 Now, sir, what is serpentine? 7 A It's -- it is a mineral. I'm not a geologist, 8 but it's certainly a mineral that's found in 9 association with talc. 10 Q Serpentine is a general class that includes 11 chrysotile; correct? 12 A Chrysotile is a serpentine. 13 Q Okay. 14 A But you can also get serpentines that are not 15 chrysotile. 16 Q Right. 17 So Serpentine is the class that includes 18 chrysotile? 19 A Amongst other things, yes. 20 Q Right. 21 And it also says: 22 "... a subordinate amount of carbonate 23 mineral, and rare or trace amounts of accessory 24 minerals, including altered amphibole, chloride, 25 pyrite, and others. The contaminants may be present in	Page 224 1 Q Okay. 2 And so they've got museum numbers designating 3 each of the samples. 4 Now, are these the samples you took? 5 A No. 6 Q Okay. 7 These are other samples from the museum? 8 A Yes. 9 Q Do you know whether or not they still exist? 10 A I do not. 11 Q All right. 12 Let's look at a few things that are said 13 here. 14 If you go to museum number 10, right, and it 15 says this was a 1910 to 1920 sample; correct? 16 A Yeah. 17 Q And it contained noticeable amounts of 18 tremolite; right? 19 A Yeah. 20 Q Then if you go to number 17, it says trace 21 tremolite; correct? 22 A Yes. 23 Q And that was one that was made from 1920 to 24 around 1930; right? 25 A Correct.
Page 223 1 all size fractions, ... somewhat more abundant in the 2 fines. Many of the contaminants are angular or 3 prismatic and undesirable components of baby talc". 4 Did I read that right? 5 A You read that. 6 Q So then again they also mention altered 7 amphibole. 8 You can set that aside, sir. 9 This will be Exhibit 33. 10 (Exhibit 33 marked for identification) 11 There you go, sir. 12 A Thank you. 13 Q Now, sir, this is a document dated July 13, 14 1966; correct? 15 A Yes. 16 Q And this one is entitled Microscopic 17 Examination Museum Baby Powder Samples by William 18 Ashton; right? 19 A It's to Mr Ashton. It's authored by R S 20 Russell. 21 Q Okay. 22 A Who's a microscopist. 23 Q You're right. This is to Bill Ashton from Mr 24 Russell; right? 25 A Yes, yes.	Page 225 1 Q You can set that aside, sir. 2 This will be Exhibit 34. 3 (Exhibit 34 marked for identification) 4 There you go, sir. 5 A Thank you. 6 Q Now, this is from Mr Russell, who we just saw; 7 right? 8 A Yeah. 9 Q This is dated January 30, 1967. 10 This is an evaluation of somebody else's 11 powder; right? 12 A Yes, that would appear to be the case. 13 Q It is called Baby-Mate. 14 A Okay. 15 Q Right? 16 Do you see that at the top? 17 A Yeah, I see that now, yes. 18 Q Baby-Mate? 19 Okay. Baby-Mate analysis. 20 When they analyzed it, it says Purity: 21 "The talc base used in this product is better 22 than 97 per cent pure talc. The remainder is 23 associated carbonate and less than 1/2% of the fibrous 24 tremolite". 25 Do you see that?

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1 A Yeah.

2 Q Fibrous tremolite.

3 Then right after that it says:

4 "This about compares with Italian #1 talc and

5 is slightly less pure, chemically, than Emtal Extra

6 talc".

7 So they says this compares with the Italian

8 No. 1; right?

9 A Well, if we're using the parameters of

10 lubricity, yes.

11 Q Well, it doesn't say that, though.

12 A No, sorry. I was reading ahead of you then.

13 Yeah, okay.

14 Q And Italian No. 1 is what you guys were using

15 in Johnson's Baby Powder?

16 A Yes.

17 Q Right.

18 And then it says down at the bottom:

19 "The structure of the particles, however, and

20 the presence of the associated carbonates and tremolite

21 lead me to believe this is an Italian talc".

22 Right?

23 A It's a hypothesis, because if you read the full

24 sentence, it says Talc Source:

25 "The talc is not from ... naturally occurring

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1 domestic talc. It could be beneficiated (floated)

2 domestic talc, as is available from North Carolina or

3 Alabama".

4 Q Right.

5 A And then it goes on to say it could:

6 "The structure of the particles, however, and

7 the presence of associated carbonates and tremolite

8 lead me to believe this is an Italian talc".

9 Q Right.

10 A So, essentially, although you've underlined the

11 second sentence, you could equally have underlined the

12 first sentence where he said it could be from North

13 Carolina or Alabama.

14 Basically, Mr Russell, looking at it under

15 his microscope, can't really be sure as to where it's

16 come from, and he's making that clear.

17 He's got two sentences: could be from North

18 Carolina or Alabama; it could be Italian talc.

19 Q He says:

20 "It could be ... beneficiated [or] (floated)

21 domestic talc ... available from North Caroline or

22 Alabama"?

23 A Yeah.

24 Q And he says -- but he has a conclusion -- he

25 says:

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1 "The structure of the particles, however, and

2 the presence of associated carbonates and tremolite

3 lead me to believe this is an Italian talc".

4 A Okay.

5 Q His conclusion is it's an Italian talc;

6 correct?

7 A No. No, it is not correct. He does not use

8 the word "conclusion" anywhere.

9 He's got two sentence, one following the

10 other.

11 He's saying:

12 "The talc is not from a naturally occurring

13 domestic talc. It could be ... beneficiated (floated)

14 domestic talc, as is available from North Carolina or

15 Alabama".

16 Next sentence, no evidence of a conclusion:

17 "The structure of the particles, however, and

18 the presence of associated carbonates and tremolite

19 lead me to believe this is an Italian talc".

20 He's basically offering two hypotheses.

21 Quite frankly, looking at it under a

22 microscope, he basically could never be sure, but it's

23 a hypothesis.

24 There's no conclusion there. He's offering

25 two sentences.

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1 It could be Italian. It could be from North

2 Carolina.

3 Q He uses the word "however"; correct?

4 A He uses the word "however".

5 Q He says:

6 "The structure of the particles, however, and

7 the presence of associated carbonates and tremolite

8 lead me to believe this is an Italian talc".

9 Is that what he says verbatim?

10 A It's what he says verbatim, but let's go back

11 to that previous sentence in the same paragraph. He's

12 also able to look at the structure of the particles and

13 come with an opinion that it could be floated domestic

14 talc from North Carolina or Alabama.

15 If there was a separate heading Conclusion,

16 "I believe this is definitely from Italian talc",

17 that's a different issue.

18 But the way that's presented indicates to

19 anyone who reads that objectively that he has not made

20 a conclusion.

21 He's offered two sentences, one following the

22 other.

23 Q Does he said that: I am led to believe this is

24 from North Caroline or Alabama?

25 Does he say that? Just answer that question.

Page 230 1 A No. He says it could be. 2 Q Could be. 3 A Yeah, from Carolina or Alabama. 4 Q And then after the next sentence he says: 5 "... however, the presence of the associated 6 carbonates and tremolite lead me to believe this is an 7 Italian talc". 8 Right? 9 A He uses the word "believe", and he's not -- 10 when we use the word "believe", we have an opinion. A 11 belief means an opinion. 12 So he's expressing an opinion: it could be 13 Italian talc. 14 Equally, in the same preliminary sentence, 15 he's saying it could be from North Carolina. 16 Q Okay. This will be Exhibit 35. 17 (Exhibit 35 marked for identification) 18 A Thank you. 19 Q Sure. 20 This is November 1, '67. So later in the 21 same year. 22 You see this is a Johnson & Johnson memo; 23 correct? 24 A Yeah. 25 Q Okay.	Page 232 1 Q Okay. 2 Go ahead and turn to the very last page. 3 It's Table II. 4 And can you see, sir, they're evaluating, 5 through a microscopic mineralogical assay, Metropolitan 6 1, Vermont Talc -- two different -- two different 7 assays there -- and Italian talc; do you see that? 8 A Yes. 9 Q And what they find is that two assays of 10 Vermont talc have trace tremolite; right? 11 A Yeah. 12 Q And what does "assay" mean? 13 A It depends on the methodology. 14 '67, this was probably optical microscopy to 15 measure numerically whether you could see it under a 16 microscope. 17 Q Okay. 18 So an assay is like a test of a sample? 19 A Yes. 20 Q Okay. 21 A They use the microscope to look at the 22 particles under a microscope. 23 Q And Italian had 1 or 2 per cent tremolite; 24 right? 25 A Yes.
Page 231 1 And this is subject: Metropolitan Talc, Lot G 2 716, Preliminary Evaluation. 3 Now, who's Metropolitan Talc? 4 A It's a competitive mining company. That's -- 5 that's all I know. 6 I don't know the company intimately. I've 7 certainly heard of it. 8 Q Okay. 9 A I believe they market talc, or marketed talc 10 back in the '60s. 11 Q This would be one of those things where they're 12 actually evaluating somebody else's talc, and they say 13 so? 14 A Show me where it says so. 15 They're -- what they're evaluating is -- was 16 a common process, certainly over many, many years, was 17 to look at other talc sources from other mines, 18 other -- basically, other people who would supply talc. 19 They would ask the company to evaluate their talc. 20 Q Right, so what I just said is true. They're 21 evaluating somebody else's talc? 22 A They're evaluating a source of talc, yes. 23 Q Right. That they did not pull out of the 24 ground. Someone else did? 25 A Yes.	Page 233 1 Q Okay. 2 And, in fact, batch 994 that's up at the top, 3 that's Vermont. 4 A Mmm hmm. 5 Q If you look the asterisk, it actually says that 6 produced August 21, 1967, at West Windsor; right? 7 A That's what it says, yes. 8 Q That's a finished batch; correct? 9 A Yes. 10 Q Okay. 11 You can set that aside, sir. 12 That finished batch had tremolite in it; 13 right? 14 A It had tremolite, but we would know that it's 15 not asbestos tremolite. 16 Q Now, Johnson & Johnson routinely used the 17 Colorado School of Mines as a consultant; correct? 18 A Yes. One of several. 19 Q Right. Right. 20 This is Exhibit 36. I'll put a rubber band 21 on it for you. It's a thick document. 22 (Exhibit 36 marked for identification) 23 Sir, you can see here this is from December 4 24 of 1970; correct? 25 A Yes.

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1 Q It is entitled Geology and Ore Reserves,
 2 Hammondsville Mine for Windsor Minerals in Vermont;
 3 right?
 4 A Yes, that's the title.
 5 Q And it says at the bottom:
 6 "The attached report completes our work on
 7 the nature and magnitude of our ore body in Vermont
 8 from which we manufacture Baby Powder talc".
 9 Right?
 10 A That's what it says, yes.
 11 Q Okay.
 12 So if you go to the page at the bottom --
 13 these pages are not numbered, but they are Bates
 14 stamped, so at the bottom 15152.
 15 A Have that, yes.
 16 Q Okay?
 17 A Yeah, we have that.
 18 Q 15152.
 19 I don't think that's it. Is that it?
 20 A 5152?
 21 Q Oh, at the very bottom.
 22 A Okay.
 23 Q Sorry, there's two Bates stamps on there.
 24 A Two Bates stamps, yeah.
 25 Q Okay.

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1 It says:
 2 "The following table -- this is just to
 3 orient us -- ... summarizes the results of ...
 4 petrographic and x-ray examinations of the rocks
 5 submitted for thin-section analysis".
 6 Meaning they did both optical and x-ray
 7 diffraction on the rocks that they pulled out; correct?
 8 A They did, yes.
 9 Q And if you turn to the very next page?
 10 MS FRAZIER: It looks like they got
 11 disconnected again.
 12 Is anybody on the line? No, we're
 13 disconnected again.
 14 MR PANATIER: Right. Let's take a quick
 15 break.
 16 (Off the record at 3:16 pm)
 17 (On the record at 3:18 pm)
 18 MS FROST: Do you want to note for the record
 19 that we passed on Exhibit 36, because you made that
 20 comment off the record?
 21 MR PANATIER: Yeah. I'm just going to pass
 22 on 36, but it's still part of the record.
 23 All right. This will be Exhibit 37.
 24 (Exhibit 37 marked for identification)
 25 Q Okay, sir.

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1 So this one is in the order I got it in, so
 2 it's a little bit -- I left it in the order I received
 3 it from Johnson & Johnson.
 4 But if you turn to -- I don't know if I
 5 flagged that one, but basically at the Bates stamp 6075
 6 down at the bottom?
 7 No, actually, start on 6076. That's going to
 8 tell us what we're looking at.
 9 All right. All right. We're there.
 10 So that is a memo from May 10, 1971; right?
 11 A Yes.
 12 Q And that is a memo from the Colorado School of
 13 Mines, who was a periodic consultant of yours; right?
 14 A Correct.
 15 Q So that's 5.10.71.
 16 Here it says:
 17 "[The] following are the results of the point
 18 count analysis on ... 344L baby powder ..."
 19 Right?
 20 A Yeah.
 21 Q And can you see it says -- by the way, when you
 22 do a particle count, that's optical microscopy; right?
 23 A Yes. That would be, yes.
 24 Q Okay.
 25 A Yes.

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1 Q And it says:
 2 "Free nontalc needles ..."
 3 Right?
 4 A Yes.
 5 Q And it says the percentage is .6; correct?
 6 A Yes.
 7 Q Okay.
 8 So in this actual sample of baby powder
 9 there's approximately .6 per cent of non-talc needles;
 10 right?
 11 A Yes, I'm familiar with this report, yeah.
 12 Q Okay. So you've seen this one before; right?
 13 A Yeah.
 14 Q Now, go to the page right before that, the one
 15 that is the internal memo from four days later.
 16 So it should be the one that is marked at the
 17 bottom 6075?
 18 A Yeah.
 19 Q Okay.
 20 And this is from Ashton to Hildick-Smith;
 21 right?
 22 A Yeah.
 23 Q 5.14.71.
 24 He says:
 25 "The attached letter shows the particle

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1 size-shape[s] consists of a production batch of our
 2 product produced in December, 1970".
 3 So we know this is Johnson's Baby Powder;
 4 correct?
 5 A Yes.
 6 Q Okay.
 7 "It is an aliquot of that which I gave to Dr
 8 A Langer at Mt Sinai Hospital. As you know I had this
 9 done to see what type of data we can expect from
 10 independent experts, as we had agreed".
 11 If we skip down to the next highlight:
 12 "We consider the free non-talc needles but a
 13 trace, both on a count and area basis. Those particles
 14 are tremolite".
 15 Right?
 16 A That's what it says, although I have seen a
 17 later report which gave a totally different opinion as
 18 to what that is.
 19 Q Yeah. We're going to talk about that one.
 20 A Okay.
 21 Q At least here in May, they're saying that the
 22 non-talc needles are tremolite needles; correct?
 23 A That was an opinion at that point in time,
 24 although it was later not validated.
 25 Q Okay. We'll discuss that.

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1 Now, everything, every memo signed by anybody
 2 is an opinion, isn't it?
 3 A It is, but it's a stronger opinion if it's
 4 backed up by extensive technical testing and
 5 evaluation.
 6 Looking at something under a microscope alone
 7 is not as strong as doing four or five different
 8 analytical tests that we've talked about: x-ray
 9 diffraction; scanning electron microscopy; transmission
 10 microscopy.
 11 Q Mmm, mmm.
 12 A You develop a higher level of surety in your
 13 opinion once you do more testing.
 14 Q Sure.
 15 This is Exhibit 38, sir.
 16 (Exhibit 38 marked for identification)
 17 This is a report you authored; correct?
 18 A Yeah.
 19 Q And if you look at the very last page, you
 20 authored it July 17, 2015?
 21 A Yeah.
 22 Q Okay.
 23 Now, let's look at the second page, talking
 24 about opinions; okay?
 25 You see how it says Testing of Johnson &

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1 Johnson Talc?
 2 A Yeah.
 3 Q There's a highlighted portion there.
 4 What it says is:
 5 "The needle-like structure of asbestos and
 6 asbestiform minerals is the quality that gives it the
 7 ability to imbed in pulmonary tissue and potentially
 8 lead to mesothelioma".
 9 Did I read that right?
 10 A You did.
 11 Q Okay.
 12 Now, let's go to -- I think it is the next
 13 flag. It should be flagged for you, and there should
 14 be a highlight there.
 15 What does that highlight say?
 16 A Is that the blue flag? The one that starts --
 17 Q Should be on page 9.
 18 A Okay.
 19 "Cornstarch ... dusting powders have been in
 20 use since the early 1900s".
 21 Q That doesn't have much to do with what we're
 22 talking about now, but it was in the report, so I
 23 figured I'd ask you about it.
 24 A Yeah, yeah.
 25 Q So cornstarch has been used since the early

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1 1900s in dusting powders; right?
 2 A Yes.
 3 Q Okay.
 4 It was always something that Johnson &
 5 Johnson if it cared to could have placed in its baby
 6 powder to the exclusion of talc; correct?
 7 A In theory. You know, I don't know whether
 8 you'd exclude talc.
 9 The company's position has always been that
 10 talc was and is safe. No reason to exclude it.
 11 It's an alternative.
 12 Q If Johnson & Johnson wanted to use a product
 13 instead of talc, it could have done so at any point?
 14 A It could have done, yes.
 15 Q Okay.
 16 A Yes.
 17 Q The first time that it made cornstarch widely
 18 available was when?
 19 A I believe the early 1970s. I'm not sure of the
 20 exact date, but approximately early 1970s.
 21 Q So if it's early 1970s, you're talking about
 22 roughly 70 years after it was first being used in
 23 dusting powders.
 24 If's 1980, you're talking about 80 years;
 25 right?

Page 242 1 A Yes. 2 Q Okay. 3 Let's go back to page 2, where you say it's: 4 "The needle-like structure of asbestos and 5 asbestiform minerals [that] is the quality that gives 6 it the ability to imbed in pulmonary tissue and 7 potentially lead to mesothelioma". 8 A Yeah. 9 Q Is that still your opinion today, one year, or 10 two years later? 11 A Yeah. 12 Q Okay. 13 You can set that aside. 14 A Yeah. 15 So long as the asbestiform minerals are 16 asbestos. That's important. 17 Q Well, if it's asbestiform, it is asbestos. We 18 talked about that? 19 A Yes. 20 Q Right? 21 A Yeah. 22 Q This will be 39. 23 (Exhibit 39 marked for identification) 24 This is a memo. Looks like it's June 19. 25 There's no year on it. I think we're in the early	Page 244 1 traces of asbestos in our talc". 2 So that is -- that looks like June 19 of 3 about '71 or '72; right? 4 Dr Langer's saying he believes there is 5 asbestos in your talc; right? 6 A He did say that at the time, yes, and of course 7 later he was proven totally incorrect. 8 Q Well, I didn't ask you whether you believed he 9 was proven incorrect. I asked you what his opinion 10 was. 11 A His -- 12 Q And his opinion was that there was chrysotile 13 in your powder; right? 14 A Yeah, but, essentially, because he was not able 15 to distinguish chrysotile from chlorite, and he was 16 confusing particles with sodium sesqui citrate, which 17 is added to help the talc flow and not clog the holes 18 in the bottle. 19 Q Sure. All right. You can set that aside. 20 Mount Sinai. They have a pretty good 21 reputation as a medical and research facility, don't 22 they? 23 A They had, but some of the people there were 24 rated by other scientists as having a low capability. 25 Q By Johnson & Johnson scientists; right?
Page 243 1 '70s. We're '71 or '72 probably. But if you believe 2 I'm wrong on that, you can let me know. 3 But this is a memo about Dr Langer at the 4 Mount Sinai School of Medicine; correct? 5 A Yes. 6 Q Okay. 7 There's a report of a phone call down below. 8 It said: 9 "2.30 pm Dr Nashed called". 10 Am I saying that right? Nashed? 11 A I believe so. 12 Q Okay. 13 A I've never met the guy, but it sounds right to 14 me. 15 Q "I gave message and he questioned: Would it be 16 to our interest to have a comparison of sodium 17 sesquictrite and chrysotile? Would it get Dr Langer 18 away from insisting that he believes we may have trace 19 amounts of asbestos in our talc? He said call Dr 20 Rolle." 21 Going down: 22 "Called Dr Rolle. He said he didn't see any 23 harm in sending ... to Langer. But he feels that Dr 24 Langer is not going to retract his statement and as a 25 scientist will stick by his feeling that there may be	Page 245 1 A Not necessarily. 2 Q Okay. 3 Who rated them as having low capability? 4 A Well, give me a name of the scientists and 5 I can probably tell you. 6 Q No. You said they were rated as having -- 7 A Okay. 8 Q -- a low capability -- 9 A Okay. Okay. 10 Q -- by somebody. So you tell me who? 11 A Okay. 12 Dr Lewin, who's based at Mount Sinai, was 13 severely criticised by many of his peers for his work 14 in the early '70s. 15 Q No, I'm asking you who criticised Mount Sinai? 16 A There was a lot of criticism, not just from 17 Johnson & Johnson, but other scientists who had 18 evaluated work done by Dr Lewin. Scientists from 19 McCrone, from Princeton University Geology Department, 20 from Battelle -- sorry, from Colorado School of Mines. 21 Dr Pooley. 22 They came to conclusions that were totally 23 different from Dr Lewin. 24 Q Okay. 25 Now, Dr Lewin never was at Mount Sinai. Do

Page 246 1 you understand that? He was at NYU. 2 A Oh, sorry. I thought we were talking about 3 that. Okay. 4 Q Okay. 5 So which one has the bad reputation, 6 according to all these scientists? 7 A No, in that case, I'll retract that. 8 Q Okay. 9 A I'll retract -- I thought you were talking 10 about Dr -- Dr Lewin's work. 11 Q We were talking about Langer right now. 12 A Oh, okay. 13 Q Okay? 14 A Yeah. 15 Q So Langer -- so when you said he'd been proven 16 wrong, were you talking about Lewin or Langer? 17 A I was talking about Langer. I'm sorry. 18 Q You were talking about Langer? 19 A I meant Langer, yes. 20 Q Okay, who you were talking about? 21 A Yes. 22 Q Okay. 23 A If I said Lewin, that is a misstatement. 24 Q Now, when you said that Mount Sinai was not 25 regarded at some point as a good scientific	Page 248 1 by you; correct? 2 MS FROST: And I'm going to object. 3 I know we agreed on objections -- 4 MR PANATIER: That's fine. 5 MS FROST: -- but I feel we're getting close 6 to the harassing the witness. 7 MR PANATIER: I'm talking fast. I'll slow 8 down. 9 THE WITNESS: Okay. No, let's go back. 10 A little while ago, we talked about what 11 would compromise a consultant, and I said that if 12 someone was being paid, it doesn't necessarily 13 compromise them, so long as that's where it stops. 14 If you get a result from a consultant that 15 you don't like, you accept that. 16 But there's never in any of these cases would 17 we actually say someone from J&J went in, spoke to the 18 guy at Princeton University, or spoke to McCrone 19 Associates, or spoke to Dr Pooley, Prof Pooley, and 20 said, "We want you to give a different result". 21 That's never occurred. 22 The mere fact that you hire someone for a 23 particular job, you pay them for the work doesn't mean 24 that they are compromised in their results. 25
Page 247 1 institution, you said scientists had said that? 2 A Yes. 3 Q And here's who you've run off: McCrone; right? 4 A Yeah. 5 Q They were a consultant of yours? 6 A They were a consultant to the industry, 7 including Johnson & Johnson, yes. 8 Q At the time that they were critical of Mount 9 Sinai; correct? 10 A They were critical of the results that Dr 11 Langer had produced. 12 Q I'm asking whether or not they were a 13 consultant to you -- 14 A They were. 15 Q -- at the time that they were critical of Dr 16 Langer? 17 A They were critical of his results and they were 18 consulting to Johnson & Johnson, yes. 19 Q The doctor at Princeton, do you remember his 20 name? 21 A Gordon Brown. 22 Q Gordon Brown was also a consultant to Johnson & 23 Johnson when he was critical of Langer; correct? 24 A He was an independent consultant, yes. 25 Q Well, he's not independent if he was being paid	Page 249 1 BY MR PANATIER: 2 Q So going in and telling them to change the 3 results wouldn't mean they were compromised? 4 A It depends on the phraseology. 5 You can't say to someone, "Go and change the 6 results". 7 You may well ask, "Can you confirm that?" 8 But that's a difference. 9 Q Mmm. 10 A I'm looking for any -- if you've got any 11 evidence of text, letters, "Go and change the results", 12 separate issue. 13 Q Yeah. 14 A I'm happy to see that and comment on it. 15 Q Yeah. 16 So my question, though, going back, was: at 17 the time that the doctor at Princeton was critical -- 18 Dr Brown was critical of Dr Langer, he was a paid 19 consultant to Johnson & Johnson; correct? 20 A Correct. 21 Q At the time Dr Pooley was critical of Dr 22 Langer, he was a paid consultant to Johnson & Johnson; 23 correct? 24 A Correct. 25 Q And same with Colorado School of Mines;

Page 250 1 correct? 2 A Correct. 3 Q All right. 4 So let's look at this. This is Exhibit 40. 5 (Exhibit 40 marked for identification) 6 This is a meeting -- report of a meeting with 7 Dr Langer that Johnson & Johnson had; correct? 8 A Yes. 9 Q Right. 10 Have you seen this before? 11 A I believe I have, yes. 12 Q Okay. 13 A Yes. 14 Q So what happens here is this representative 15 from Johnson & Johnson meets with Dr Langer and they 16 look at some tissue from the Tenovus study that was 17 being done; right? 18 A Yeah. 19 Q Now, the Tenovus study was they were looking at 20 ovarian tissue and they were finding talc in it; right? 21 A They claimed to have found talc in it, yes. 22 Q Of course, Johnson & Johnson claims they were 23 wrong; right? 24 A It was never confirmed whether it was talc or 25 something else, but --	Page 252 1 Q Proven by who? 2 A Proven by expert scientists, the Colorado 3 School of Mines. 4 Q Yeah, your consultant? 5 A They are, but these are not consultants to whom 6 J&J could offer any way of saying, "Change your mind". 7 This is independent -- these are independent 8 people. 9 The fact that you pay someone to do a job, 10 whether it's Battelle, McCrone or Colorado School of 11 Mines, you don't get a -- you don't get a result that 12 says, "We want it to fit what we think it should be". 13 You get a result based on the science, and 14 that's what came out of this. 15 Q That's the ideal; right? 16 A That is the ideal, and that is the reality in 17 this case, yes. 18 Q Okay. 19 Then they do light and electron microscopy of 20 Johnson's Baby Powder; correct? 21 A Correct, yes. 22 Q Right. 23 If you look on the -- I guess it's third to 24 last page, but there's a highlight there. 25 It says:
Page 251 1 Q Okay. 2 A -- that's aside. 3 Q Right. Next -- next page. 4 Now, they're looking at talc and it says: 5 "Viewing the grids prepared on Friday at 6 about 11,000X ..." 7 That means 11,000 times magnification; right? 8 A It does. 9 Q "... in the electron microscope, we were able 10 to find -- we were unable to find any particles which 11 could obviously be identified as talc, however, fibrous 12 structures were observed under higher magnification ... 13 these fibers were identified by Langer as chrysotile". 14 And by the way, I'm sorry, that's still 15 looking at the Tenovus tissue, just for clarification. 16 Down at the end he says: 17 "Evidence such as this was observed in at 18 least one other field in the one sample which was 19 examined". 20 So Dr Langer is saying he sees chrysotile in 21 the ovarian tissue; correct? 22 A That's what he says. 23 Q Right. 24 A Although it's later proven that that was not 25 correct. He was using the wrong methodology.	Page 253 1 "Using electron microscopy Dr Langer has 2 demonstrated to me the presence of some very fine 3 fibers at moderately high magnification which he 4 identifies as chrysotile asbestos by the typical 5 tubular appearance of the fiber". 6 Correct? 7 A Yes. 8 Q That's what was reported; true? 9 A That's what was reported, yeah. 10 Q Okay. 11 A Yeah. 12 Q Then go to the next page: 13 "In addition to the observation of the 14 tubular structures as an indication of chrysotile Dr 15 Langer also pointed out the typical thermal behavior of 16 the fiber which is initiated by the heat generated at 17 the sample by the electron beam". 18 And then he goes on to talk about how it gets 19 deformed by the beam; okay? 20 A Yeah. 21 Q Near the end: 22 "Although we did not perform selected area 23 electron diffraction on Friday, Dr Langer has observed 24 these patterns from chrysotile fibers found in 25 JOHNSON'S Baby Powder".

Page 254 1 Did I read that right? 2 A You did. 3 Q And so Summary, number 2: 4 "Chrysotile is identified in the electron 5 microscope by its characteristic tubular appearance (at 6 high magnification)". 7 And number 4: 8 "Electron microscopy at high magnification 9 shows a few fibers to be present in JOHNSON'S ... Baby 10 Powder which can be identified with chrysotile asbestos 11 according to Dr Langer". 12 Right? 13 A According to Dr Langer. 14 Q Now, Johnson & Johnson disagree with Dr Langer; 15 right? 16 A Yes. 17 Q Okay. 18 I know you want to make that clear. So they 19 disagreed with Dr Langer? 20 A Yeah. 21 Q Okay. 22 A Simply electron diffraction is not a competent 23 method to examine chrysotile. 24 Q Okay. 25 So that's 7.9.71: Langer says he found	Page 256 1 with recognized standards, using that test methodology. 2 And the problem with many of those methods, 3 with scanning -- with x-ray diffraction, is that many 4 minerals have a very similar pattern of diffraction. 5 So it is -- it has limitations. 6 All test methods have limitations, and that's 7 one with that particular test method. 8 Q So no one would do that today? 9 A You would -- you would certainly do it today, 10 because it's part of the initial process to remove any 11 doubt as to whether or not there is -- that material is 12 there, yeah. 13 Q So it's part of the protocol today. 14 Do you agree that today scanning electron -- 15 selected area electron diffraction is part of the state 16 of the art of identifying minerals? 17 A It's one of the three tests that you would do. 18 Q And Langer was doing it in '71; right? 19 A Yes. 20 Q Okay. 21 This memo -- this is Exhibit 41. Should be 22 41. 23 (Exhibit 41 marked for identification) 24 It's from July 29, 1971; correct? 25 A Yes.
Page 255 1 chrysotile; right? 2 A That's what he said, yes. 3 Q And, I'm sorry, you just said something else. 4 You said something about electron diffraction 5 is what? 6 A It's not a competent method to identify 7 chrysotile. 8 Q Selected area electron diffraction? 9 A Correct. 10 Q Says who? 11 A Essentially, the CTFA method picked that up at 12 the same time, the early 1970s, and as a result of the 13 inability of electron diffraction to differentiate 14 between chlorite and chrysotile, there was a 15 requirement to look at additional test methods. 16 Hence, as a minimum, the polarized light 17 microscopy and methods followed by Johnson & Johnson, 18 including transmission electron microscopy, have a 19 better ability to separate out chrysotile from 20 chlorite. 21 Q Sir, what does "selected area electron 22 diffraction" do? What does it tell you? 23 A Electron diffraction pattern of any mineral is 24 a -- it looks a bit like lots of dots scattered on a 25 screen, and you need to be able to compare that pattern	Page 257 1 Q All right. 2 And it's from Dr Nashed to Mr Foster and the 3 subject is Talc/Asbestos; right? 4 A Yes. 5 Q Okay. 6 And it says here: 7 "The talc used in JOHNSON'S Baby Powder is 8 obtained from a selected mine in Vermont where the ore 9 consists mainly of platy talc with only trace amounts 10 of fibrous minerals (tremolite/actinolite)". 11 Right? 12 A That's what it says. 13 Q Okay. 14 A Yeah. 15 Q So this is July 29 of 1971, and here Johnson & 16 Johnson is saying that the baby powder ore has trace 17 fibrous tremolite actinolite; right? 18 A Well, this particular author, who is not a 19 microscopist or an expert, in brackets used the words 20 "(tremolite/actinolite)". 21 But trace fibrous minerals would also include 22 what is called fibrous talc. That is talc that is 23 shards that are literally split off, or talc that is 24 rolled, as we described like a rolled newspaper. 25 That would come under the same heading as

Page 258 1 fibrous minerals. 2 Q So when Dr Nashed says that their ore contains 3 fibrous tremolite/actinolite, we shouldn't believe him? 4 A Well, I'd want to see the evidence, the x-ray 5 diffraction, the scanning electron microscopy and 6 various other studies which actually said yes, it does 7 contain tremolite or actinolite. 8 Until I've seen that, I'd say that he was 9 probably guessing and may not have even, in 1971, been 10 able to separate out rolled talc or fibrous talc or 11 talc particles that were fibrous in appearance from 12 tremolite or actinolite. 13 Q Well, sir, haven't we seen document after 14 document talking about Vermont talc finding tremolite 15 in it? 16 A We have seen documents that claim to have found 17 tremolite, yes. 18 Q Over and over and over again? 19 A Yeah. But, again, we've not examined as to 20 whether that tremolite was asbestos tremolite or 21 massive tremolite. 22 Q We've seen fibrous now several times, haven't 23 we? 24 A The word "fibrous" is often used in talc to 25 describe fibrous talc.	Page 260 1 and say, "You have no idea what you're talking about"? 2 A No, I'm not aware whether they did, or maybe 3 they picked up the phone. 4 But, yeah. 5 Q Right? 6 Not aware of any; correct? 7 A I'm not aware of any other opinion. 8 Q You can set that aside, sir. 9 A If I may finish -- I hadn't actually quite 10 finished then -- I was reading the rest of the report, 11 because what the rest of the report actually said is 12 that the Dartmouth College of Geology reported on their 13 findings of no tremolite or asbestos in a sample of 14 purified talc from the Vermont mine. 15 Q Again, that's another one of your consultants; 16 correct? 17 A That's -- that would be, yes. Yeah. 18 Q Okay. 19 Right, sir. You can set that aside. 20 This will be Exhibit 42. 21 (Exhibit 42 marked for identification) 22 Okay. This is from Bill Ashton, August 6, 23 1971, to WT Caneer at the Colorado School of Mines; 24 right? 25 A Yes.
Page 259 1 In fact, quite a lot of talc, maybe 3 or 2 4 per cent of talc can be fibrous in nature. Just the 3 way it's processed, you get -- 4 Q Mmm hmm? 5 A -- talc plates on their edge will look like a 6 fiber. Turn them round, they look like a plate. Talc 7 rolls up, it looks fibrous. 8 It is not unusual to see fibrous talc under 9 the microscope. 10 Q Does he say fibrous talc here, or does he say: 11 "... fibrous minerals 12 (tremolite/actinolite)"? 13 A He's saying fibrous minerals. 14 Q Okay. 15 A And in parentheses he's suggesting 16 tremolite/actinolite. 17 But Dr Nashed was not an expert or a 18 microscopist. In fact, yeah, there's no evidence that 19 it was tremolite or actinolite. 20 Q Other than what he wrote in a Johnson & Johnson 21 memo? 22 A Yes. 23 Q Right? 24 A Yes. 25 Q And, to your knowledge, did anyone write back	Page 261 1 Q All right. 2 And he says: 3 "I have shipped to Bob Beers' attention one 4 drum of Italian rock from the Crosetto mine in the 5 Chisone Valley of the Italian Alps". 6 Right? 7 A Yes. 8 Q And he says here down at the bottom: 9 "I have also checked into the mineralization 10 of that part of the territory and the minerals which 11 show in the valley are: Talc, Pyrite, Magnetite, 12 Calcite, Dolomite, Apatite, Clinocllore, Chrysotile, 13 Tourmaline, Tremolite, Actinolite, Illemenite, and 14 Albite". 15 Right? 16 A Yes, they are -- they are undoubtedly present 17 in the valley in the territory. 18 Q Right. 19 And three of those he identified are 20 chrysotile, tremolite and actinolite; right? 21 A Yes. 22 Q Now, chrysotile is asbestos? 23 A Yes. 24 Q Right? 25 Tremolite and actinolite can occur as

Page 262 1 asbestos; correct? 2 A Yes. 3 Q Right. 4 And that's in the Italian talc; correct? 5 A No, that's in a mining area which could be 6 several miles away from the talc mine. 7 Q Okay. 8 So -- 9 A It's in the -- it's in the Val Chisone valley, 10 which is the area which is the -- from which the high 11 grade Italian talc originates. 12 But what he's saying is in that same area. 13 It's the same with Vermont. You'll get -- a 14 few miles away, you'll get a totally different product 15 from a cosmetic talc. 16 Q Ashton is sending him to Colorado School of 17 Mines a sample of -- he calls it "rock" from Italy that 18 contains chrysotile, actinolite and tremolite; right? 19 Or he's saying -- I'm sorry, sending the 20 sample of rock and he's saying the mineralogy of that 21 area contains chrysotile, actinolite and tremolite; 22 true? 23 A Yeah, but you need to actually, and the court 24 needs to understand that when we look at a talc mine, 25 it's got to be clearly separate from those areas that	Page 264 1 that's not the purpose of the flotation process. 2 Q Well, and the tremolite is still present after 3 flotation, as we've seen; correct? 4 A There is a presence there, yes, and of course 5 we now know that that tremolite is not asbestos 6 tremolite. 7 Q Well, you keep saying that, and we'll -- we'll 8 get there. 9 (Exhibit 43 marked for identification) 10 This is from August 9, 1971; do you see this? 11 A Yes. 12 Q And this is from Shelley to Sunberg and Ashton. 13 Did I give you a copy? 14 MS FROST: No. 15 MR PANATIER: Take that one. 16 MS FROST: Thank you. 17 BY MR PANATIER: 18 Q Okay? Right? 19 And what Shelley says to Sunberg and Ashton 20 is: 21 "It is important that we continue the process 22 ... work on this -- on the removal of fines from our 23 baby powder since this is the faction implicated in 24 talcosis and asbestos toxicology". 25 Does he say that?
Page 263 1 are not mined for talc. 2 In other words, it could well be that a mile 3 or two away there are areas which are clearly not what 4 you'd want. 5 You're going to get some of those minerals, 6 like pyrite, magnetite, calcite, dolomite -- there's a 7 lot of other minerals listed there, and those will be 8 at some distance away from the actual talc part of the 9 mine. 10 Q Well, from what we've looked at so far, there's 11 plenty of tremolite in the Italian talc you guys were 12 using and in the Vermont talc; right? 13 A Non-asbestos tremolite. 14 Q Well, actually, sir, none of those documents 15 were very specific about whether it was fibrous or not, 16 were they? 17 A No, but for a very simple reason. 18 The whole point of the flotation process is 19 to raise the quality of the talc, the size of the 20 particles of the talc. 21 The main outcome of that flotation process 22 was to increase the size of the large particles, the 23 smooth, slippery particles, from maybe 90, 92 per cent 24 to 98 per cent. 25 The mention of tremolite is present, but	Page 265 1 A That's what he says, yeah. 2 Q Is he wrong to? 3 A If the fines were asbestos, that would be a 4 reasonable statement, but of course we know that there 5 is no asbestos. 6 Talcosis is a condition that occurs in talc 7 miners who are heavily exposed to talc. I'm not aware 8 of seeing that as something that occurs in consumers. 9 The point being here that Mr Shelley was keen 10 to proceed with the flotation process as a way of 11 ensuring the product was even better than it would be 12 otherwise. 13 Q Well, he's talking about the removal of fines 14 from the baby powder: 15 "... since this ... faction ..." 16 And he's talking about that segment of the 17 powder. 18 A Yeah. 19 Q "... is implicated in [two things:] talcosis 20 and asbestos toxicology". 21 Now, talc can't cause an asbestos disease if 22 there's no asbestos in it; right? 23 A Correct. 24 Q Okay. 25 A And let's be clear, Mr Shelley is at this stage

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1 a junior scientist, who basically I would say hadn't a
 2 clue what he was saying.
 3 Q Okay.
 4 A But, you know, I'm not going to say any more
 5 than that.
 6 Q So he was wrong?
 7 A He was -- he was giving an opinion, but it's
 8 not an opinion based on fact.
 9 Q So it seems like -- it seems like for a lot of
 10 these Johnson & Johnson memos written by Johnson &
 11 Johnson people, you really take issue with what they
 12 wrote?
 13 A Well, it happens to be the same individual,
 14 Mr Shelley, who wrote the last one that I took issue
 15 with.
 16 But I'm entitled to take issue with what --
 17 Q Sure.
 18 A -- someone wrote in 1971 if it doesn't reflect
 19 the state of knowledge today.
 20 Q This will be Exhibit 44.
 21 (Exhibit 44 marked for identification)
 22 Now, this is a document from McCrone, who was
 23 one of your consultants at the time; correct?
 24 A Correct.
 25 Q This is dated September 3, 1971, and it is to

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1 Dr -- and I think it's Al -- Goudie -- is that how
 2 you'd say it -- at Johnson & Johnson?
 3 A Yeah. Dr Goudie, yes.
 4 Q All right.
 5 Was he a good doctor?
 6 A He was a physician, I believe.
 7 Q Was he smart?
 8 A I've never met him.
 9 Q Okay.
 10 Was he a junior doctor, whose statements we
 11 can't trust?
 12 A I've never met him. I don't know what his age
 13 or experience was at that time.
 14 Q Okay. All right. I'm just checking before we
 15 talk about what he says.
 16 So this was from McCrone, which was a lab, a
 17 testing lab; correct?
 18 A Yes.
 19 Q And it says:
 20 "Dear Dr Goudie:
 21 Enclosed are two copies of our preliminary
 22 report on the Grantham ore and the Shower to Shower and
 23 medicated powders".
 24 Right?
 25 A Yeah.

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1 Q Okay.
 2 Let's go to their actual results, which are
 3 on -- it's Bates stamped 8898. Okay?
 4 Okay. Do you see that?
 5 A Yes.
 6 Q It says:
 7 "In the medicated powder, we found one fiber
 8 of chrysotile, and we estimate that this powder
 9 contains less than .001% asbestos ..."
 10 Right?
 11 A Yes. Yeah.
 12 Q That's correct?
 13 A By the methodologies they were using, which I'm
 14 trying to work out what that is ...
 15 The author of this -- it's interesting -- the
 16 author of this report is actually saying that:
 17 "I marvel at Dr Pooley's ability to look at
 18 photographs and decide what they were. Two months
 19 later, I am beginning to do that now. The little
 20 characteristics of each fiber are beginning to fit into
 21 place".
 22 So right at the beginning he's actually
 23 saying: you know, I'm not an expert on this, but based
 24 with the technology I've got, the system I've got, I
 25 think I can give you some opinion. It's preliminary.

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1 But, yeah.
 2 Q Well, okay.
 3 So first thing, I want to abide by our
 4 agreement on objections, but I may have to start to
 5 object to non-responsive, because we're just reading
 6 the beginning of the report.
 7 A Okay. Done.
 8 Q I don't want to have to do it, because --
 9 A No, no. Let's -- let's go forward.
 10 Q We have an agreement.
 11 But, okay, so --
 12 A I will try and answer the question.
 13 Q Okay.
 14 So here's the question: look at the page I
 15 asked you to look at. He says:
 16 "In the medicated powder, we found one fiber
 17 of chrysotile, and we estimate that this powder
 18 contains less than .001% asbestos".
 19 Correct?
 20 A That's what he says.
 21 Q Your consultant is telling you that your
 22 medicated powder, made from talc from Vermont, which is
 23 the same mine that you're getting the baby powder from,
 24 had chrysotile in it; correct?
 25 A That's what he said on his preliminary report,

Page 270 1 yes. 2 Q And, in fact, so this is -- the date of this 3 report, just so I have it correct, is September 3, '71. 4 And he says -- he actually gives a specific 5 percentage, and he says there is .001 per cent 6 chrysotile in medicated powder; right? 7 A Yes. Can we -- what he does describe it as in 8 the G-11 sample. I'd like you to make sure that's on 9 the record. 10 Q Sir -- 11 A He's saying in the G-11 sample. 12 Q We'll -- we're going to get there. 13 A Okay. 14 Q We're looking at what he actually said on the 15 page I'm asking you about; okay? 16 A Which page is that? 17 Q It's the page I've told you about now two 18 times, 8898. 19 A Okay. 20 Q We're going to look at -- we're looking*at the 21 actual report; okay? 22 A Yeah. 23 Q He says verbatim: 24 "In the medicated powder, we found one fiber 25 of chrysotile, and we estimate that this powder	Page 272 1 A That's true, yes. 2 Q Okay. 3 Then it says: 4 "In running the standards of the additives to 5 the medicated powder and to ... Shower to Shower ... we 6 did find two fibers of chrysotile, positively 7 identified ... by morphology and diffraction patterns 8 in the G-11 sample. These two fibers were very close 9 together and may have come from the same source. 10 Again, the percentage was low, 0.005-0.001%, but this 11 may be a potential source of contamination of the end 12 product". 13 So there's an additive; right? 14 A Yes. 15 Q That has been added to the Shower to Shower; 16 right? 17 A Yeah, yeah. 18 Q And the medicated powder; right? 19 A Yes. 20 Q And they find chrysotile in the additives; 21 right? 22 A They claim to have found chrysotile, yes. 23 Q Okay. You can set that aside. 24 Now, here is my question about McCrone: so 25 McCrone is a professional testing lab; right?
Page 271 1 contains less than .001% asbestos". 2 Correct? 3 A That's what he says. 4 Q Okay. 5 He's telling Johnson & Johnson there is 6 chrysotile asbestos in the medicated powder; correct? 7 A By the techniques he was using to measure. 8 Q Right. 9 And these were -- you guys sent stuff to 10 experts; right? They were an expert, weren't they? 11 A They were an expert in the techniques at the 12 time, yes. 13 Q You used McCrone for 20, 30 years, did you not? 14 A Yes. 15 Q Okay. 16 And so, sir, you understand, at 17 .001 per cent, that can mean hundreds of thousands or 18 millions of fibers per gram; you understand that, 19 right? 20 A If that were confirmed, yes. 21 Q Okay. 22 Because .001 per cent in just our kind of 23 lay, everyday language doesn't sound like a lot. But 24 in terms of very, very tiny fibers, it could be very 25 many fibers; true?	Page 273 1 A Yes. 2 Q And they're someone that after this report -- 3 this is the first McCrone report you and I have looked 4 at, but after this report, Johnson & Johnson sent 5 samples of talc to McCrone for years and years and 6 years. Probably hundreds or even thousands of samples; 7 isn't that right? 8 A That's correct, yes. 9 Q All right. 10 So as of the time of this report, Johnson & 11 Johnson didn't register any complaints with McCrone 12 about their abilities, did they? 13 A I don't know the answer to that. 14 Q Okay. 15 So I can understand the structure of the mine 16 versus Johnson & Johnson, so the Vermont mine, that was 17 called the Windsor mines, I guess? 18 A Yes. 19 Q Hammondsville, Argonaut, maybe some others, but 20 Johnson & Johnson only used talc out of Hammondsville, 21 Argonaut and maybe Rainbow at some point. We'll talk 22 about that. 23 Did Johnson & Johnson mine industrial talc 24 with higher levels of amphibole? 25 A There was a separate mine, which I believe was

Page 274 1 several miles away, which was the industrial talc mine. 2 They owned that for a short period of time. 3 Q Was that the Johnson mine? 4 A I believe that's what it was called, yes. 5 Q And how long did they own that mine? 6 A Two or three years. 7 Q When? 8 A Mid-'60s to later '60s. 9 Q Okay. 10 A Again, an estimate. 11 Q Okay. 12 Now, during the period of time -- when did 13 Johnson & Johnson own the mines? 14 A Early '60s and sold them in '68, I think. 15 Q To who? 16 A To Cyprus Minerals. 17 Q Okay. 18 And then Cyprus and its successor companies 19 ran it until '03? 20 A That's -- that's correct, yes. 21 Q Now, was there another company that was 22 actually doing the mining that Johnson & Johnson had -- 23 I don't know what you want to do -- relied upon, paid 24 to do the actual mining? Or were they Johnson & 25 Johnson miners?	Page 276 1 microscopist? 2 A He is recognized, yes. Yeah. 3 Q Okay. 4 You can see here it says under the Summary on 5 the second page: 6 "Three talc samples identified as 2676-55A, 7 ... 55B, and ... 55C, have been examined for the 8 Windsor Mineral Company with particular emphasis being 9 placed on the fiber content of the materials, 10 particularly fibers of the asbestiform minerals". 11 Okay. Do you understand that? 12 A Yes. 13 Q Okay. 14 Now, under sample C, they say that they 15 identified a fiber that the -- two fine fibers that had 16 the morphology of chrysotile; right? 17 A Yes, yeah. 18 Q If you turn to the page which is 5970, they 19 talk about sample A, and there they say: 20 "We found four fibers, three of which could 21 be ... [classified] as suspect on the basis of their 22 morphology, but none of these fibers could be 23 positively identified. Of the three suspect fibers, 24 one has a limited similarity and two have substantial 25 similarity to the morphology of chrysotile, but they
Page 275 1 A The company was owned by Johnson & Johnson. 2 Not another company. 3 Q Okay. 4 A It was owned by Johnson & Johnson. 5 Q And that's Windsor Minerals? 6 A Yes. 7 Q Okay. 8 So Johnson & Johnson owned Windsor Minerals 9 that was doing the mining? 10 A Correct, yes. 11 Q Okay. 12 And they were mining the cosmetic talc for 13 use in Shower to Shower, the baby powder, medicated 14 powder, et cetera? 15 A Sure. Yes. 16 Q Okay. 17 This will be Exhibit 45. 18 (Exhibit 45 marked for identification) 19 Here we go. 20 A Thank you. 21 Q All right, sir. 22 Can you see this is a report from McCrone to 23 Windsor Minerals, October 21, 71; right? 24 A Yes. 25 Q And it's by Ian Stewart. Is he -- is he a good	Page 277 1 could not be identified as this mineral as we were 2 unable to obtain [an] electron diffraction pattern ... 3 from them". 4 Now, electron diffraction pattern is SAED; 5 right? 6 A Yes. 7 Q Selected Area Electron Diffraction? 8 A Yes, yeah. 9 Q And that's what Langer was doing on chrysotile; 10 correct? 11 A Yes. 12 Q And you said that's not a good technique? 13 A It's a broad technique. It will pick up 14 chrysotile if it's there, but it can also give a false 15 impression, because it doesn't necessarily separate out 16 chrysotile from chlorite. 17 If you've got -- chlorite's a common trace 18 in -- in talc. 19 Q Are you -- are you thinking of x-ray 20 diffraction? 21 A Sorry, is that what you said? 22 Q No. I said Scanning Area Electron Diffraction. 23 A Oh, I'm sorry. I wasn't -- 24 Q Are you talking about x-ray diffraction? 25 A I was talking about x-ray diffraction.

Page 278 1 Q Okay. 2 A Yes. 3 Q So when Langer on that paper -- we can go back 4 to it if you need to -- 5 A Yeah. 6 Q -- he was doing electron diffraction. 7 A That's correct, yes. 8 Q Not XRD? 9 A Yeah, yeah. 10 Q And just so we can get it straight, because 11 we've been talking about these things a lot, right, XRD 12 is x-ray diffraction. 13 A Correct. 14 Q That is not a microscope, is it? 15 A No, no, no. 16 Q XRD can tell you generally if a mineral is 17 present; right? 18 A Yes. 19 Q Sometimes it can mix two up, like you said 20 chlorite and chrysotile? 21 A Correct, yes, yes. 22 Q Right. 23 It is only sensitive down to about half 24 a per cent; right? 25 A Well, some of the modern methods are probably	Page 280 1 few times. 2 The last point on Observations, he says: 3 "The possibility that the suspect fibers 4 found in samples A and B originate from some external 5 source of contamination cannot be precluded". 6 Right? 7 A Yes. 8 Q Okay. 9 We'll ask some questions about that as we see 10 it more. You can set that aside. 11 A Okay. 12 VIDEOGRAPHER: Excuse me. 13 MR PANATIER: Yeah. 14 VIDEOGRAPHER: You've got about five minutes 15 more of recording time. 16 MR PANATIER: Okay. We'll do one more 17 document. 18 This is Exhibit 46. 19 (Exhibit 46 marked for identification) 20 Q Did I give you two of them? There. All right. 21 There is it is. Thank you. 22 Okay. So, sir, this is correspondence from 23 Dr Langer at Mount Sinai, November 11, 1971; right? 24 A Yes. 25 Q Okay.
Page 279 1 slight better, but, yeah, we'll give you that, yes. 2 Q Okay. 3 I mean, back in the '70s, it was -- 4 A Yeah, yes. 5 Q -- sensitive to about half a per cent? 6 A Yes. In the '70s, yes. 7 Q Then you have optical microscopy, which can 8 actually see morphology? 9 A Yes. 10 Q But it can't see -- a lot of the fibers it 11 can't see at all because they're too small; right? 12 A Yes, up to a point, yeah. 13 Q Then you have transmission electron microscopy? 14 A Yes. 15 Q Which can see very, very, very small fibers; 16 right? 17 A Yes. 18 Q Okay. 19 So the criticism you were leveling earlier, 20 you were thinking about XRD, not SAED? 21 A Yes. I misheard what you said. 22 Q That's fine. Okay. I just wanted to clear 23 that up. All right. 24 So then let's go down to Observations, 25 because I think we're going to see this from McCrone a	Page 281 1 A November 10, yeah. 2 Q Right. 3 Now, he's talking about at first the Tenovus 4 samples, and those were the ovarian tissue samples we 5 discussed earlier; right? 6 A Yes. 7 Q Okay. 8 And he says: 9 "In respect of the Tenovus samples that were 10 sent to us, we made the following observations. We did 11 find some grains that resembled talc with the usual 12 electron diffraction pattern consistent for a sheet 13 silicate structure". 14 Then later on: 15 "We assume that the particles were talc or, 16 rather, were consistent with talc. We also got a few 17 surprises in that we observed some chrysotile asbestos 18 to be present in the tissue as well". 19 And we have the memo from Johnson & Johnson 20 from this meeting that you and I have already talked 21 about; right? 22 A Yes. 23 Q Where Johnson & Johnson's person reports back 24 that Dr Langer showed us what he said was chrysotile in 25 the Tenovus samples; right?

Page 282 1 A Yes. 2 Q Okay. 3 And now, let's look at the second page. 4 There's the highlight there: 5 "We also observed trace amounts of chrysotile 6 asbestos only when the talc was sonified and markedly 7 dispersed. The amounts of chrysotile are relatively 8 small, occurring in amounts, we estimate, at less than 9 .01%. The J & J baby talc is of quite highly quality 10 and as a matter of fact, in relation to the number of 11 samples we have examined thus far, it is the 'purest'". 12 Right? 13 A That's what he says, yes. 14 Q He says it's the purest, but it still has .01 15 or less than that per cent chrysotile; correct? 16 A By his method of electron diffraction. 17 Q Okay. 18 So that is November 10, 1971. 19 Let's go ahead and switch out the tape. 20 (Off the record at 4:06 pm) 21 (On the record at 4:18 pm) 22 MR PANATIER: Okay. 23 This will be Exhibit 47. 24 (Exhibit 47 marked for identification) 25 Q All right. So this is June 17, 1972. It's	Page 284 1 Now, Mr Clare I believe is the President of 2 J&J at the time. 3 Is that your recollection? If I'm wrong, 4 tell me who he is? 5 A I've met -- when was this, '72 -- I met 6 Mr Clare. I think he was the President of the baby 7 products company. 8 Q Okay. All right. 9 A Not the whole -- not the whole corporation. 10 Q He was the President of the baby products 11 company, which is a division? 12 A Yes. 13 Q Right. Okay. 14 So Nashed reports his conversation with 15 Langer to Mr Clare, and then he was asked to contact 16 Mr Romer of the New York Department of Air Resources. 17 So then in the next paragraph we get to that: 18 "I pointed out to Mr Romer that he attended 19 the FDA meeting on August 3 and it was obvious at that 20 time from both our findings and Dr Langer's comment 21 that Johnson & Johnson Baby Powder is free of asbestos. 22 Mr Romer said that he understands that our powder may 23 still contain traces of asbestos and since Dr Selikoff 24 had previously said that the only safe level is zero, 25 he still feels that we have not proven that our powder
Page 283 1 memo to the file. 2 So I guess sometimes if guys just had stuff 3 they wanted to record, they would do a memo and put it 4 in the file? 5 A That's usual, yes. 6 Q Right? 7 A Yeah. 8 Q And this one is Dr Nashed again? 9 A Yeah. 10 Q Right? Okay. 11 If you go to the second page, he's reporting 12 about his meeting with Dr Langer. 13 He said: 14 "I asked Dr Langer if he can state that our 15 baby powder is free of asbestos as a result of the 16 conference and review of August 3, 1971, with the FDA. 17 He said he still thinks that Johnson & Johnson's 18 product contains minute traces of asbestos and he 19 believes he can find asbestos fibers after breaking 20 down the platelets by ultrasonic technology -- 21 ultrasonic energy". 22 Okay. Skip down a little bit: 23 "After reporting my conversation with Dr 24 Langer to Mr Foster and Mr Clare, I was asked to 25 contact Mr Romer, NY Department of Air Resources".	Page 285 1 is completely safe". 2 Now, let me ask about that just real quick. 3 Dr Nashed here says he told Mr Romer it was 4 obvious from that time that both their findings -- 5 J&J's findings and Dr Langer's comment, meant that J&J 6 Baby Powder is free of asbestos, but four paragraphs 7 above Dr Langer has been very clear that he thinks 8 Johnson & Johnson's product still has asbestos in it; 9 correct? 10 A On the one hand, Dr Langer is saying that he 11 couldn't find any asbestos, but then he was kind of 12 hanging onto his first thoughts that, well, maybe it 13 does. 14 Q Well, in the earlier document he actually said 15 he did find asbestos. 16 Do we have to go back to that? The one from 17 November 10 of '71? 18 A Okay. 19 Q .01 per cent chrysotile? 20 A That preceded the meeting, according to this, 21 with -- the meeting with FDA, which Dr Langer was 22 present. 23 And my understanding of that meeting was that 24 the outcome was that asbestos was not present. 25 Q Okay, but --

Page 286 1 A That was -- you know, that was 12 months 2 earlier. 3 Q Yeah, I get it. 4 But right here on the memo we're talking 5 about, Langer tells Nashed he still thinks there's 6 asbestos in Johnson's Baby Powder; correct? 7 A That was his opinion still, yes. 8 Q Okay. 9 A He'd not retracted at that point. 10 Q And the fellow who worked for the New York 11 Department of Air Resources said that he understands 12 that Johnson's Baby Powder may still contain traces of 13 asbestos: 14 "... and since Dr Selikoff had previously 15 said that the only safe level is zero, he still feels 16 that we have not proven that our powder is completely 17 safe". 18 So I want to ask about that. 19 Certainly, Johnson & Johnson agrees that the 20 only safe level of asbestos in baby powder is zero; 21 correct? 22 A Yes. 23 Q Okay. 24 You can see that aside, sir. 25 This will be Exhibit 48.	Page 288 1 and more detailed analysis showed only trace amounts of 2 asbestos in our powder. Also said our talc is most 3 pure they have seen. Times quoted FDA their test 4 showed 'no detectable content of asbestos' in our baby 5 powder. Articles follow". 6 So Langer says: I revised my numbers down 7 from the preliminary report. He still thinks there's 8 traces of asbestos in it; correct? 9 A By the methods he was using. 10 Q Yeah? 11 A Yes. 12 Q Okay. 13 All right, sir. So let's go to the next 14 document. 15 So that was June 20. Langer says he still 16 thinks there's trace asbestos in baby powder; right? 17 Is that correct, sir? 18 A By the methods he was using, yes. 19 Q Right. 20 A Yeah. 21 Q This will be Exhibit 49. 22 (Exhibit 49 marked for identification) 23 This is three days later. This is a letter 24 from David R Clare, the President of the -- well, this 25 right here up top says Johnson & Johnson Office of the
Page 287 1 (Exhibit 48 marked for identification) 2 Hopefully this will help us clear up the 3 stuff about Dr Langer. This is Exhibit 48. 4 So this is June 20, 1972. So this is three 5 days after the memo you and I just looked at. 6 A Yeah. 7 Q Okay. It's again from Dr Nashed: 8 "The NY Times published revised article 6/17 9 that [the] NY Environmental Protection Agency had 10 misinterpreted data regarding Johnson's Baby Power". 11 So let's stop there. 12 I'm sure you know from the review of the 13 documents you looked at that there was a preliminary 14 report that said that consumer talcum powders had 15 between 5 and 20 per cent asbestos in them; right? 16 A Yeah. 17 Q And that was Mount Sinai and they revised those 18 numbers down; correct? 19 A They did. 20 Q Okay. 21 "Source of data at Mount Sinai School of 22 Medicine ..." which is Langer. 23 We know that's Langer; correct? 24 A Yeah. 25 Q "... said his original report was preliminary	Page 289 1 President. 2 A Yeah. 3 Q So is he the President of all Johnson & 4 Johnson? 5 A Yeah, it would appear so. 6 Q Okay. 7 A Yeah. 8 I -- he was originally the baby products, so 9 he may have been promoted in that time, yeah. 10 Q Right. 11 So three days after Langer reiterates that he 12 still thinks there's trace asbestos in the baby powder, 13 the President of Johnson & Johnson writes to all 14 employees; right? 15 "We are writing to you about an article which 16 appeared in the June 16 edition of the New York Times 17 alleging asbestos in Baby Powder. The article 18 published false information about JOHNSON'S Baby Powder 19 but was clarified the following day in The Times." 20 Then they attach the articles for people to 21 read; right? 22 A Yes. 23 Q Okay. 24 If you go down to number 3, he lists key 25 facts, but here's number 3 I want to talk to you about:

Page 290 1 "Dr Langer of Mount Sinai Hospital, who did 2 the tests referred to by the New York City 3 Environmental Protection Administration, admitted that 4 his analysis was incorrect and said further that the 5 light microscope technique used is unreliable and 6 [that] 'the fibers that they have seen under those 7 conditions were proven to be talc not asbestos'". 8 But we know three days before he's saying 9 there's still asbestos in the product; correct? 10 A Yeah, by the technique that he was using, which 11 were never validated. 12 Q Didn't Mr Clare tell the employees of Johnson & 13 Johnson there that, while Dr Langer took his numbers 14 down, he still believed there was asbestos in the baby 15 powder? Did he communicate that? 16 A Well, what he communicated was the second 17 page -- 18 Q I am not asking what he communicated. 19 A -- in the attachment. 20 Q I'm asking if he communicated a certain thing. 21 Did he communicate that Langer had reiterated 22 that there was still asbestos in the baby powder? 23 A I would need to read this in more detail. 24 My understanding was -- as you say, the 25 heading in The New York Times, Doctor Admits He May	Page 292 1 Q You tell me. You said that it was -- there was 2 some issue with the technique. So I want to know what 3 it is. 4 A Okay. 5 Yeah, he was using x-ray diffraction. That 6 was his initial read. X-ray diffraction. 7 Q Do you remember the memo of the visit where 8 they said they looked at the sample at 20,000 times? 9 A That was the microscopic as well. 10 Q That's transmission electron microscope. 11 Do we need to go back to it? 12 A Did it say transmission electron microscope? 13 Q It said 20,000 times. 14 A Well, a good laboratory microscope will pull 15 that. 16 Q It will not. 17 A Okay. Let's look. 18 Does it actually say transmission electron 19 microscope? 20 Q Well, we can go back to it, but let me ask 21 you a question. 22 A I think it's quite important. 23 Q We can. Absolutely. Let me see if I can find 24 it ... 25 I'm going to have to find that letter. Let
Page 291 1 Have Been Mistaken, was essentially the withdrawal of 2 his original opinion, and that original opinion is 3 confirmed by the Food and Drug Administration. It was 4 clear. It said that there wasn't asbestos. 5 So my read of that is that Mr Clare was 6 saying what was the opinion at the time, that the 7 fibers were talc and not asbestos. 8 Q Well, look at the article he sent along. Go 9 back to the article. Okay? 10 Look in the third column over, second 11 paragraph down: 12 "But Langer said the amount of asbestos he 13 saw in the baby powder was only a bare trace level. At 14 the current state of medical knowledge, he said there 15 is no way of knowing if such a small quantity could be 16 harmful". 17 So he's in the article saying that there is 18 still asbestos in the product, is he not? 19 A He's saying it, but by the methodologies and 20 the test procedures that he was using in 1972. 21 That's what he is saying. 22 Q Ah-hah, and what test procedures was he using? 23 A Well, let's go back to the original report, 24 shall we, which you gave to me? 25 Is it microscopy? Light microscopy?	Page 293 1 me just find it ... 2 So here is the letter. This is from November 3 10, 71; okay? 4 MS FROST: Which document is that, please? 5 MR PANATIER: This one. 6 MS FROST: Which Exhibit? 7 MR PANATIER: That one. 11.10.71. 8 MS KAGAN: 46. 9 MR PANATIER: It's like two or three back. 10 46? Okay. 11 Q Here we go. All right. Here's page 2 of it. 12 Look at the top of page 2. 13 A Yeah. Okay. Electron microscope. 14 Q Okay. 15 A Okay. I'll give you that. 16 Q Thank you, sir. 17 So Langer is using the electron microscope 18 and that is what he's basing his opinion on that the 19 Johnson's Baby Powder has trace asbestos; correct? 20 A That's his opinion, yes. 21 Q Okay. 22 And do you have, as you sit here today, any 23 actual scientific technique of -- scientific critique 24 of the method he was using, which was electron 25 microscopy?

Page 294 1 A Okay. The standard methodology to measure 2 asbestos or otherwise is to use electron diffraction. 3 Q Do you mean x-ray diffraction? 4 A X-ray diffraction -- optical polarized light 5 microscopy and scanning or transmission electron 6 microscopy. You can add infrared trace as well. 7 It's only when you pull all those together 8 that you get a higher level of surety and assurance 9 that there's no asbestos present. 10 Q Okay. 11 We'll talk a little bit more about those, but 12 the CTFA J4 that they adopted in '76, did it have a 13 requirement for electron microscopy? 14 A Initially -- no, it did not, no. But Johnson & 15 Johnson added their own requirement -- 16 Q I understand. 17 A -- at that time. 18 Q J4-1 is still in effect today? 19 A It is. 20 Q Is it not? 21 A Yeah, it is. 22 Q Right. 23 And it still doesn't require electron 24 microscopy; right? 25 A That's my understanding, yeah.	Page 296 1 Q Okay. 2 Which is why it's so important to continue to 3 monitor a mine source, even if it had been initially 4 cleared; right? 5 A Yes, absolutely. 6 Q All right. 7 J&J understood that the whole time it was 8 selling talc; right? 9 A Yes. 10 Q Okay. 11 All right. This is 78. 12 This will be Exhibit 50. 13 (Exhibit 50 marked for identification) 14 A Thank you. 15 Q All right. So this a report from McCrone 16 again; right? 17 A Yeah. 18 Q And it's dated October 27, '72; right? 19 A Yes. 20 Q It is an examination of Johnson & Johnson's 21 Baby Powder; correct? 22 A Yes, the title is Examination of Johnson's Baby 23 Powder -- Johnson & Johnson Baby Powder, October 27, 24 1972. 25 Do not use this report. Replaced by another
Page 295 1 Q Is CTFA J4 a reliable way to ensure there's no 2 asbestos in talc? 3 A It's part of the process, but part of the 4 process would also ensure that the mine itself was 5 validated to be free of asbestos. 6 And if you're doing that, then you would do 7 more than just CTFA J4 method. 8 Q Now, Johnson & Johnson understands that mines 9 have inter-mine variability; right? 10 A They do. 11 Q That the ore can change from foot to foot or 12 inch to inch; correct? 13 A Well, I'm not sure about the inch to inch. 14 Generally, talc seams are several feet thick. 15 Q They can go from several feet to inches thick 16 to non-existent; right? 17 A Indeed, in which case, the miners would not 18 bother with one inch thick, thank you. 19 Q Right. 20 It wouldn't make sense? 21 A Wouldn't make sense. 22 Q Right. 23 In addition, the accessory minerals also 24 change from spot to spot within the mine; right? 25 A They do, yes.	Page 297 1 version. 2 Q Right, and we're going to get to that. 3 So inside this says: 4 "Two samples of Johnson & Johnson's Baby 5 Powder, batch number 108T and 109T, which correspond to 6 the samples examined by Professor ... Lewin ... [from] 7 New York University on behalf of the FDA have been 8 examined by x-ray diffraction, light microscopy [and] 9 transmission electron microscopy and electron 10 diffraction to determine whether they contain any 11 asbestiform minerals". 12 Right? 13 A Yes. 14 Q Now, those are all the different types of 15 microscopes that you said one ought to use, right? 16 A Yes. 17 Q Okay. 18 And that's what McCrone was using here; true? 19 A Yes. 20 Q And it says: 21 "Both samples contained an insignificant 22 amount of tremolite (<0.5%)". 23 Right? 24 A That's what it says. 25 Q Neither contained chrysotile; true?

Page 298 1 A That's what it says. 2 Q Okay. 3 "On behalf of the FDA, Professor Seymour Z 4 Lewin of New York University is examining a number of 5 commercial talcum powders for the presence of 6 asbestiform minerals. Two of the samples which he has 7 examined are samples of Johnson & Johnson's Baby 8 Powder, batch number 108T and batch number 109T. 9 Johnson & Johnson therefore requested Walter C McCrone 10 Associates to examine samples from the same batches to 11 determine whether they contained asbestiform minerals". 12 Now, the background on this is that Dr Lewin 13 had said he found chrysotile; correct? 14 A Yes. 15 Q All right. 16 So McCrone is now testing them for Johnson & 17 Johnson; right? 18 A Correct. 19 Q Okay. 20 Go under Light Microscopy, please, on the 21 following page. 22 It says: 23 "The total tremolite content of the two 24 samples would be approximately 0.5% for 108T and 25 0.2-0.3% for 109T".	Page 300 1 So they only found tremolite; right? 2 A That's what it says. 3 Q Okay. 4 And, in fact, it says they were rod-shaped; 5 right? 6 A Yes. 7 Q Okay. 8 Now, on the cover it says, "Do not use this 9 report. Replaced by another version"; right? 10 A Yeah. 11 Q So this is Exhibit 51. 12 (Exhibit 51 marked for identification) 13 And you can see this is someone's note on the 14 cover of a McCrone report that says: 15 "McCrone study being done. New one is in the 16 master file". 17 Right? 18 A That's what it says, yes. 19 Q So we saw the original report, you and I? 20 A Yeah. 21 Q Then it's been redone and they've put the cover 22 on it so we know which one it is, the 10.27.72; 23 correct? 24 A Correct. 25 Q Okay.
Page 299 1 Right? 2 A That's what it says, yes. 3 Q So you have two samples: sample 1; sample 2. 4 In one of them you have .5 per cent of 5 tremolite, and in another you have between .2 to 6 .3 per cent tremolite. 7 And then it says under Conclusion: 8 "A detailed examination of two samples of 9 Johnson & Johnson's Baby Powder, batch numbers 108T and 10 109T, has shown this material to be substantially free 11 of asbestiform minerals. A few tremolite rods were 12 observed in both samples at a level less than 0.5%". 13 And they gave us the specific percentages, .5 14 and .2 to .3; correct? 15 A Correct. 16 Q Okay. 17 And Under Electron Microscopy it says: 18 "Several electron microscope grids from both 19 samples were examined in their entirety and although 20 some fibers were observed these were shown by electron 21 diffraction to be shards of talc or rolled talc. No 22 chrysotile fibers were found". 23 Right? 24 A Correct. 25 Q Okay.	Page 301 1 So for some reason the report that you and I 2 just discussed where they found tremolite is being 3 redone. 4 Do you know why it's being redone? 5 A It's not unusual in any scientific analysis, 6 whether you're measuring pH or whatever, to double 7 check your results. 8 My guess is that they were asked to -- "Would 9 you double check that, please?" 10 Q Okay. 11 We're going to look at the revised report 12 now. This will be Exhibit 52. 13 (Exhibit 52 marked for identification) 14 Okay. Have you had a chance to look at it? 15 A I'm reading it. 16 Q All right. 17 Ready? 18 A Yeah. 19 Q Okay. 20 So in the one you and I looked at they give 21 the percentages of tremolite; right? 22 A Yeah. 23 Q It says: 24 "Do not use this report". 25 Then in the revised report, which dated the

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1 same date; right?

2 A I'm going to stop you there. It's not a

3 revised report. It's identical. It's a photocopy.

4 When scientists' laboratories do a report,

5 they give a report number. In this case, it's 2546,

6 and the second one you've given me also says 2546.

7 So it appears at first inspection that you've

8 got one that says, "Don't use this report. Replaced by

9 another version", but Exhibit 52 is identical.

10 It doesn't appear to be a replacement, unless

11 you can find differences.

12 Q It is, and here's where we're going to find the

13 replacement.

14 A Okay.

15 Q So it is an identical report, as far as it is

16 the same samples; correct?

17 A Yes.

18 Q It is the same date; correct?

19 A It is, yes.

20 Q Everything is the same except for this.

21 In the revised number, they took out of

22 percentages of tremolite?

23 A Okay.

24 Q Right?

25 A Yeah. Got you.

Page 303

1 Q There's nothing -- they don't say anything

2 about, "Well, we did it wrong". There's nothing about

3 a revised method. Nothing about that.

4 All they did was take out how much tremolite

5 they found in Johnson's Baby Powder; correct?

6 A Correct.

7 Q So in the first one, they said under the first

8 Summary paragraph:

9 "Both samples contained an insignificant

10 amount of tremolite (<0.5%)".

11 In the second version, the redone version, it

12 says:

13 "Both samples contained an insignificant

14 amount of tremolite -- a few isolated crystals".

15 Right?

16 A That's what it says, yes.

17 Q That's one change.

18 Then if you turn the page, sir, the original

19 says:

20 "The total tremolite content of the two

21 samples would be approximately 0.5% for 108T and

22 [about] 0.2-0.3% for 109T".

23 And all they put in the revised report was:

24 "The samples were similarly examined for the

25 presence of tremolite and a few individual crystals

Page 304

1 were found".

2 Right?

3 A That is correct. That's the revised version.

4 Q And then, lastly, in the original version in

5 the Conclusion, it says:

6 "A few tremolite rods were observed in both

7 samples at a level less than 0.5%".

8 In the revised one, it just says:

9 "A few tremolite rods were observed in both

10 samples".

11 Right?

12 A That is correct.

13 Q So for some reason McCrone has taken a report

14 and they have redone it, left the same date and

15 everything, to just take out all the percentages of

16 tremolite that they found; right?

17 A That's right.

18 Q And we know that Johnson & Johnson was aware

19 that there was a new report because in the interim they

20 had an internal memo that said, "McCrone study being

21 redone"; right?

22 A Yes.

23 Q Okay. You can set that aside, sir.

24 Can you tell us what communications occurred

25 between J&J and McCrone when they received the original

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1 report that would result in that second report? Are

2 you aware of any communications?

3 A I'm not aware.

4 Q Okay.

5 A But I'll stand to be corrected if you have

6 correspondence otherwise.

7 Q I wasn't on the phone with whoever talked to

8 whoever.

9 A No.

10 Q All right. Let's do 80.

11 The bottom line is the results changed;

12 right?

13 A Well, the final conclusion was they found a few

14 crystals of tremolite, and the difference, of course,

15 is that they excluded their estimation of percentage.

16 Q Right. Okay. All right. Here we go. This is

17 Exhibit 53.

18 (Exhibit 53 marked for identification)

19 So here is Nashed to Goudie, and if you turn

20 to the second page, you can see what they're talking

21 about?

22 A Yes.

23 Q "Received report just -- revised report just

24 received, 108T and 109T"?

25 A Yeah.

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1 Q Which is the report we were just talking about;
 2 right?
 3 A Correct.
 4 Q And then it says -- Nashed writes to Goudie and
 5 he says:
 6 "Dr Goudie
 7 I thought tremolite was mistakenly identified
 8 in view of similarity to Na sequictrate!"
 9 Right?
 10 A Correct.
 11 Q And Goudie writes back -- that's Al Goudie;
 12 right?
 13 A Yes.
 14 Q He writes back:
 15 "There are trace quantities present confirmed
 16 both by McCrone and Bill Ashton".
 17 Now, Bill Ashton works for J&J; right?
 18 A He did, yes.
 19 Q "Levels are extremely low but occasionally can
 20 be detected optimistically. This is not new."
 21 Right?
 22 A That's what it says.
 23 Q Okay.
 24 So Johnson & Johnson knew there was tremolite
 25 in the Johnson's Baby Powder; correct?

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1 A That's what it says.
 2 Q And apparently it was nothing new; right?
 3 A That's what it says.
 4 Q This will be 54.
 5 (Exhibit 54 marked for identification)
 6 When you and I were talking earlier, we were
 7 talking about the fact that if a company goes to a
 8 scientist and says, "Change your results", that would
 9 be a problem; right?
 10 A Yeah, if it was a significant change, yes.
 11 Q Okay.
 12 A You may -- you may question and say, "What do
 13 you mean by this?"
 14 That's not necessarily a change.
 15 Q Okay.
 16 Well, what we've seen already now in '71 is
 17 McCrone changing their results; correct?
 18 A No, they -- well, they've still said they found
 19 tremolite. They claim to have found tremolite.
 20 But all they've done --
 21 Q They just took out how much?
 22 A -- they've taken out their estimate --
 23 Q Okay.
 24 A -- of less than .5 per cent.
 25 Q Okay.

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1 August 24, 1972, is this memo you and I are
 2 looking at now. This is from Dr Nashed, again, okay,
 3 and he's cc'ing ten people, including the President of
 4 the company; right?
 5 A Yes.
 6 Q Okay.
 7 That's Mr Clare, and he's writing to RA
 8 Fuller.
 9 Now, who's RA Fuller?
 10 A I believe he was a research scientist.
 11 Q He says:
 12 "Dr Weissler, Director, [of the] Division of
 13 Cosmetic, FDA, called us this afternoon to report they
 14 had submitted a sample of SHOWER TO SHOWER previously
 15 examined by Dr Lewin to the Sperry Rand scanning
 16 electron microscope facility this afternoon".
 17 Now, the background on Dr Lewin, we've talked
 18 about a little bit --
 19 A Yeah.
 20 Q -- is Dr Lewin had been retained by the FDA to
 21 look at a bunch of different consumer talc products;
 22 right?
 23 A He had, yes.
 24 Q He had reported chrysotile in the baby powder
 25 for Johnson & Johnson; right?

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1 A I believe so, yes.
 2 Q And he had reported tremolite in the medicated
 3 powder; correct?
 4 A He claimed to have seen tremolite, yes.
 5 Q Sure. Sure.
 6 And Johnson & Johnson and its consultants
 7 took great issue with Dr Lewin's findings; correct?
 8 A Yes. It didn't reflect the long history of the
 9 results that the company had looked at.
 10 Q Right.
 11 It depends on how close you look, though,
 12 right, whether you're going to find asbestos or not, if
 13 it's present?
 14 A If you're using the best techniques you'll find
 15 it.
 16 Q Right.
 17 If you're using the best techniques; right?
 18 A Yes.
 19 Q Okay.
 20 So:
 21 "The report from Sperry Rand was that
 22 asbestos fibers could be detected in the sample. Dr
 23 Weissler said that he has in front of him photographs
 24 from 6 fields at 12,000X magnification showing fibers
 25 with length to width ratios of 10-to-1 ... 50-to-1, one

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1 of them appearing on top of a talc plate. He estimated
 2 that their diameter is less than .05 micron".
 3 Now, 10-to-1, 50-to-1, with the width of half
 4 a micron, that's a fiber; right?
 5 A Correct.
 6 Q Okay.
 7 A Yeah.
 8 Q "I asked Dr Weissler if the Sperry Rand
 9 facility handles minerals. He said yes, they do a lot
 10 of work with chrysotile. I asked him, "Have they
 11 reported to you the normal background contamination in
 12 their samples. As you recall, this was a problem in
 13 Mount Sinai's laboratories". He said no; however, he
 14 feels that the man who did the work is conservative and
 15 would not have reported chrysotile unless he was sure.
 16 I asked him if he was assured himself -- if he has
 17 assured himself that the fibers were not tremolite
 18 which could be present in trace amounts. He said the
 19 fibers are characteristic of chrysotile and not
 20 tremolite".
 21 So I'm going to stop there.
 22 So Johnson & Johnson is talking to the
 23 Director of the Division of Cosmetics for the FDA;
 24 right?
 25 A That's correct.

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1 Q He says he has electron microscopy images of
 2 Johnson's Shower to Shower product and has found
 3 chrysotile in it; right?
 4 A He's found particles which he claims to
 5 identify as chrysotile.
 6 Q Well, that's what you're saying. He doesn't
 7 say: I've found particles I claim to identify as
 8 chrysotile.
 9 He says: we've found chrysotile?
 10 A That's what he's saying, yes.
 11 Q Okay.
 12 And Johnson's response is: well, are you sure
 13 it's not tremolite fibers, because those could be
 14 present in trace amounts; right?
 15 A That's what it says here, yes.
 16 Q So this is Dr Nashed again and he is suggesting
 17 that: well, chrysotile fibers probably shouldn't be
 18 there, but tremolite fibers might be. We get those
 19 from time to time; fair?
 20 A Well, that's what he's saying. He's asking
 21 whether the fiber is tremolite or chrysotile.
 22 We know, of course, that there could be other
 23 minerals.
 24 Q But what Johnson & Johnson volunteers to the
 25 FDA is maybe they are tremolite fibers; right?

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1 A Yeah, and they could, if whoever wrote this had
 2 expertise, have said: could they be rolled talc, or
 3 could they be talc shards, fibrous talc?
 4 He mentioned tremolite, but he could have
 5 said -- could have given other options.
 6 Q Okay.
 7 A He only mentioned tremolite.
 8 Q Well, he probably mentioned tremolite because,
 9 as we know, there's a very robust record of the mineral
 10 tremolite being present in the ores that Johnson &
 11 Johnson uses; correct?
 12 A That is correct.
 13 Q Okay.
 14 A Yes.
 15 Q And so he says that:
 16 "I asked him if he has assured himself that
 17 the fibers were not tremolite which could be present in
 18 trace amounts".
 19 So he's certainly open to the possibility
 20 that there are tremolite fibers that could be mistaken
 21 for chrysotile fibers; correct?
 22 A He's raising that as an option, yes.
 23 Q Okay.
 24 A Yes.
 25 Q "I told Dr Weissler that this information is

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1 completely at variance with the information we have
 2 from McCrone and from our laboratories".
 3 Right?
 4 A Correct.
 5 Q All right.
 6 Did anybody write back to Dr Nashed, of these
 7 ten people, including the President of the company, to
 8 your knowledge, and say, "Why would you suggest there
 9 were fibers of tremolite mistaken for chrysotile; we've
 10 never had tremolite fibers in our product"?
 11 A I don't know if anyone wrote back or picked up
 12 the phone. I've no idea.
 13 Q Okay.
 14 You've never seen a correction to that?
 15 A I've not seen another opinion.
 16 Q All right. All right, sir. You can set that
 17 aside.
 18 I'm going to try not to take a lot of time on
 19 this document. This is 89.
 20 MS FROST: This is 55?
 21 MR PANATIER: That's going to be 55, yeah,
 22 and there's two documents there, but they're one
 23 exhibit. They're one exhibit. You can clip them
 24 together if you want.
 25 (Exhibit 55 marked for identification)

Page 314 1 Q Here you go, sir. 2 A Thank you. 3 Q Okay. So if you want to turn to the third page 4 in -- 5 A Yes. 6 Q -- this is the September 8 report from Dr 7 Pooley, who was a microscopist and a geologist? 8 A He's a geologist. He's still alive. 9 Q Right, from the UK? Right? 10 A Yes. 11 Q Now, he's the one that in 1996 tells Bill 12 Ashton that anything containing either asbestiform or 13 non-asbestiform should be rejected, correct, and you 14 then got that memo from Mr Ashton; right? 15 A Yes. 16 Q So here he is in '72 and he's telling you guys 17 about the geology of the Italian mine; right? 18 A Yes. 19 Q Now, by now in '72, you guys are allegedly done 20 using Italian; right? 21 A In the US, yes. 22 Q Yeah. 23 Were you using Italian elsewhere? 24 A It was used in the UK until 1985. 25 Q '85. Okay. Thank you. All right.	Page 316 1 A Yes, yes. 2 Q Okay. 3 He identifies tremolite fibers throughout the 4 mine, doesn't he? 5 A He finds tremolite material in the area, but 6 not to my read -- not to my read of this -- he talks 7 about it, finding it in the foot wall and the areas 8 which are not talc, basically. 9 Q Okay. 10 A Yeah. 11 Q Now, in a mine -- you're not a miner, are you? 12 A No. 13 Q Neither am I. I know you're surprised about 14 that. 15 Foot wall is literally, if you have a shaft, 16 right, it's down at the base? 17 A Yes. 18 Q Hanging wall is up at the top; right? 19 A Yeah. 20 Q And then usually you have a vein going through 21 the middle; right? 22 A Yeah. 23 Q So hanging wall and foot wall are close; fair? 24 A They can be, yeah. 25 Q Yeah.
Page 315 1 So what that says on that page is: 2 "This document represents the completion 3 report of the Italian mine samples and other powders 4 supplied by Johnson and Johnson, Cosham, Portsmouth, to 5 the Department of Mineral Exploration [sic]". 6 And this is the lead -- the lead guy here is 7 Pooley; right? 8 A Yes, Prof Pooley, yeah. 9 Q Okay. 10 Now, there's a lot of different things we 11 could talk about on here, but have you reviewed this 12 before? 13 A I have read this before, yes. 14 Q Yeah. Okay. So maybe I can short circuit this 15 a little bit. 16 He goes through the Val Chisone mine; right? 17 A Yes. 18 Q And he analyzes all sorts of samples, including 19 talc ore, the foot wall, hanging wall, all the 20 different types of rock that can come in contact with 21 the ore in any way; right? 22 A Or not come in contact. 23 Q Right. 24 He samples some that you wouldn't expect to 25 come in contact with the ore; true?	Page 317 1 Now, when we talk about talc miners, we 2 aren't talking about sort of the classic visualization 3 of mining where there's a bunch of guys with pick-axes. 4 Generally, we're talking about machine-based mining; 5 correct? 6 A Yes. 7 Q Where whoever is operating the machine takes 8 the machine through the rock until he gets to the talc 9 and stops the machine? 10 A Yes. 11 Q Then they come in and they pull out the talc? 12 A Yeah. 13 Q Bring it back and sort it, float it, 14 beneficiate it, et cetera? 15 A Yes. 16 Q Right? 17 A Yeah. 18 Q So let's turn to the page, at the base it's 19 095. 20 And he's talking about -- we're going to see 21 this over and over -- he's talking about different 22 specimens; right? And we have a record of the 23 specimens I believe right on the few pages before. 24 So if you kind of want to keep those -- a 25 finger on those, starting at page 92, we can keep track

Page 318 1 of what he's talking about; okay? 2 A Okay. 3 Q We can look at where these samples came from. 4 So let's do this one first. So I46 is what 5 he's talking about. So we can turn to I46 and we can 6 see that it's just a face 3 colored specimen; right? 7 A Yes. 8 Q Now, when he talks about "face", what is he 9 talking about? 10 A I don't know. As I said, I'm not a miner. 11 Q Right. Okay. 12 In this sample he has identified that there's 13 tremolite as one of the minerals that's present; true? 14 A Yeah, yeah. 15 Q Okay. 16 A When you read the total report, you'll -- as 17 you've obviously read it -- 18 Q Mmm hmm? 19 A -- you'll realize that what he was doing was 20 looking at just about everything in the mine where he 21 could possibly -- possibly look finding the non-talc 22 areas and the talc mining areas. 23 Q Sure. 24 A He was looking at what could possibly be in the 25 geology of the mine.	Page 320 1 these, so if I take a moment I'm saving us time. 2 Okay. All right. So go ahead and turn, if 3 you will, to page number 132. 4 MS FROST: Bates number 132? 5 MR PANATIER: Yeah, 132 at the bottom, 6 because at the top they're kind of cut off. 7 Q All right, sir, I think you've got it. 8 So this one at the very top, this is specimen 9 I41; okay? 10 So we can see it says I41 is face 2 good 11 specimen; okay? 12 A Yes. 13 Q And this entry makes me think that "face" means 14 face of the talc ore itself, okay, because here's what 15 it says: 16 "This specimen of talc ore consists of a 17 coarse aggregate of feathery talc intimately intergrown 18 with minor chlorite (var. sheridanite), and enclosing 19 rare large porphyroblasts of subhedral garnet which 20 occasionally contain long prismatic inclusions of 21 tremolite". 22 Right? 23 A Yes. 24 Q So this is him saying this is a good sample of 25 talc ore that contains tremolite; right?
Page 319 1 Q Okay. 2 So do me a favour, please, and turn to page 3 it's at the bottom 117. 4 The middle one there, figure 17a. Do you see 5 that? 6 A Yes. 7 Q That's a thin section of sample I19; right? 8 A Yes. 9 Q Okay. 10 Now go back to I19 there, and that's shown to 11 be a tremolite quartz talc sample; correct? 12 A Yeah. 13 Q That's a talc sample that contained tremolite 14 and quartz; true? 15 A Well, it's a tremolite sample that contains 16 talc. 17 Q Okay. All right. 18 So he -- here he has found tremolite in 19 association with talc; correct? 20 A Yeah. 21 Q And he describes it as "coarse bladed 22 tremolite"; right? 23 A Yeah. 24 Q Okay. 25 Let's go to -- I'm going to skip some of	Page 321 1 A It contains prismatic tremolite. 2 Q Long prismatic inclusions of tremolite; right? 3 A Yes. 4 Q Okay. 5 Go to the next one, please. 6 Let's see ... Actually, we may be able to 7 skip ahead here. 8 All right. Go ahead and turn, if you will, 9 please, sir, to page 168, the Bates number. 10 Do you have it there? 11 A Yes. 12 Q Okay. 13 This is the section for electron micrographs 14 of particles produced from those specimens containing 15 amphibole mineral and also from the amphibole mineral 16 itself. 17 And then if you turn the page he's got -- 18 these are electron photomicrographs; correct? 19 A Yeah. 20 Q He's using an electron microscope; right? 21 A He is, yes, yes. 22 Q You see here tremolite carbon -- carbonate talc 23 sample at 3,000 magnification; right? 24 A Yeah. 25 Q Let's just check what I19 is.

Page 322 1 I19. That's that tremolite quartz talc 2 sample we looked at before. So that's the actual 3 image; okay? 4 A Yes. 5 Q If you go to page 170, you've got particles 6 produced from single crystals of tremolite extracted 7 from specimen I19 and I20; right? 8 So we don't have to go through the rest of 9 these. 10 So there certainly is a good amount of 11 tremolite in the surrounding rock, and of course we've 12 actually seen it in the ore itself; correct? 13 A Yeah. 14 Q The talc ore? 15 A Yeah. 16 Q Right. 17 A And Prof Pooley describes it as crystal 18 tremolite. 19 Q Right. 20 A Yeah. 21 Q And long, needle-like inclusions; correct? 22 A Where did you read that? 23 Q That was one we -- you and I covered. 24 Let me see if I can find it again ... 25 It was for I41. It was the face where it	Page 324 1 asbestos. 2 Q I think we'll see how Johnson & Johnson defines 3 fiber here coming up, but not right now. 4 Number 90, please. 5 This is Exhibit 56. 6 (Exhibit 56 marked for identification) 7 So I'm going to go to the board and just get 8 us caught up. 9 So that was September of '72 was the Pooley 10 report. 11 And what I'm going to do is I'll just write: 12 tremolite in surrounding rock and talc ore. 13 Is that accurate, sir? 14 A Yes. 15 Q Okay. All right. 16 And now we have, from September 25, this is a 17 memo to the file from a meeting that Johnson & Johnson 18 had with the FDA; right? 19 A Yes. 20 Q From September 21, '72. 21 Down above the bottom paragraph, just for 22 some context, it says: 23 "The meeting was started on time and we were 24 asked to present our data. The data were presented by 25 our consultants in the order set up by Drs Shelley and
Page 323 1 said "good specimen". So I just have to find that 2 again ... 3 Yeah. Page 132. 4 A Thank you. 5 Q I don't remember what I said, but what he says 6 is: 7 "Contain long prismatic inclusions of 8 tremolite". 9 Right? 10 A That's right, yeah. 11 Q Okay. Right. 12 A Prismatic -- my understanding of prismatic 13 tremolite is non-asbestos tremolite. 14 Q Okay. 15 If it -- if it becomes a fiber, if it is a 16 fiber of tremolite, it is asbestos; correct? 17 A It could be, yes. 18 Q Okay. 19 A Yeah, but in this case it's prismatic. 20 Q How does -- how does Johnson & Johnson define 21 "fiber"? 22 A I've not seen a definition of "fiber" in 23 Johnson & Johnson. 24 The only definitions that the company has 25 around talc quality purity relate to absence of	Page 325 1 Goudie in a meeting on September 20 as follows ..." 2 And so they actually have Pooley at the FDA; 3 right? 4 A Yeah. 5 Q Okay. 6 It says: 7 "Dr Pooley reviewed in detail his 8 comprehensive examination of the Italian mine, showing 9 it contains no deposits of chrysotile asbestos and very 10 minor amounts of tremolite". 11 Right? 12 A That is correct. 13 Q So I'm just going to write here under the same 14 entry -- this is 9.21 -- Pooley reiterates tremolite to 15 the FDA. 16 A Yeah. 17 Q Okay? 18 A Using the term "prismatic tremolite". 19 Q Well, he just says: minor amount of tremolite 20 in the Italian mine? 21 A Yeah, but in the report that we just 22 reviewed -- 23 Q Yeah? 24 A -- 55, he uses the word "prismatic". 25 Q Go to the next page, please.

Page 326 1 Now, Dr Lewin is there; right? 2 A Yes. 3 Q Okay. 4 But, actually, before we get to Lewin, we can 5 see that Dr Brown and Dr Buerger have spoken on behalf 6 of J&J; right? 7 A Yes, they've spoken on -- with their results, 8 yeah. 9 Q Right. 10 They're consultants of Johnson & Johnson at 11 this point? 12 A They are. 13 Q Right. 14 Mr Caneer, he's a consultant to J&J; right? 15 A Yes. 16 Q McCrone is as well? 17 A Yes. 18 Q Ian Stewart is as well? 19 A Yes. 20 Q So we get to Dr Lewin, and at the bottom 21 they're talking about chrysotile and he said -- it 22 says: 23 "He proposed a theory that chrysotile was in 24 the process of being formed inside the talc platelets 25 in a new form. Drs Pooley and Hildick-Smith pointed	Page 328 1 Q Okay. 2 So this is to Dr RA Fuller. Do you know what 3 his job was? 4 A I think he was a senior research fellow. 5 Q Okay. 6 A Yes. 7 Q This is January 29, 73. 8 It says: 9 "Mr Stites told me on Friday that CTFA 10 received inquiries from a Mr Spivak, a Wall Street 11 Journal reporter, who told them that FDA is about to 12 issue regulations governing asbestos in talc and asked 13 them what ... industry [is] doing about it". 14 Now, as general context to all of this, the 15 FDA was involved in trying to figure out whether or not 16 there was an asbestos problem with consumer talcs; 17 right? 18 A They were, yes. 19 Q Okay. 20 And industry was responding to the FDA on 21 those issues; correct? 22 A They were and they were sharing the results 23 with FDA, as we've just seen. 24 Q That's right. 25 In fact, the FDA proposed regulating asbestos
Page 327 1 out that only fibrous chrysotile is implicated in lung 2 problems. Dr Lewin had no comment". 3 Is there any other type of chrysotile other 4 than fibrous? 5 A I'm not aware that there is, but yeah. 6 Q All right. 7 Okay. You can set that aside. 8 This will be Exhibit 57. 9 (Exhibit 57 marked for identification) 10 Okay. This is from Nashed to Fuller. 11 Nashed is pretty involved in all this stuff; 12 right? 13 A Yeah, yeah. I believe he's one of the 14 scientists at the time. 15 Q Yeah, and he's a doctor; right? 16 A I think he had a PhD, yeah. 17 Q All right. 18 Do you have a PhD? 19 A I do. 20 Q Okay. 21 And at no time in all these memos, especially 22 to all the people that these are to, does anyone pull 23 Nashed off this and say you're doing anything wrong, do 24 they? 25 A I'm not aware of that.	Page 329 1 in talc; correct? 2 A Yes, I believe that's the case. 3 Q Okay. 4 And it was the position of Johnson & Johnson 5 and the CTFA that the FDA should not regulate asbestos 6 in talc and that the industry would self-regulate; 7 correct? 8 A And that's been the position of the cosmetic 9 industry for generations. 10 Q In fact, even though we're seeing 11 correspondence with the FDA, the FDA does not regulate 12 cosmetics outside of color additives; isn't that true? 13 A FDA has a broad responsibility to ensure 14 cosmetics are safe, and particularly in the case of 15 talc, they've taken that responsibility very seriously. 16 They've done their own independent analyses 17 of products on the US market, certainly in the '70s and 18 again I think it was about 2009. 19 So they do take it seriously, even though 20 they may not formally have a regulation. 21 But they've got a broad, overarching 22 responsibility to ensure the consumer gets a safe 23 product. 24 Q And that is a good answer to the question, "Do 25 they take it seriously?"

Page 330 1 But that's not the question I asked. 2 The question I asked was: do they regulate 3 cosmetics outside of color additives? 4 A There's no formal regulation, no. 5 Q Okay. All right. 6 And companies are not -- under no obligation 7 to provide information to the FDA. If they do so, it's 8 because they volunteer to do so; correct? 9 A That's -- that's been the case for decades. 10 Q Well, forever, as far as the FDA goes; right? 11 A Yes, yes. 12 Q Okay. All right. 13 So Dr Nashed reports: 14 "Today I called Mr Wenninger, Chief, 15 Cosmetics Branch ..." 16 And that's at the FDA; correct? 17 A Yes, correct. 18 Q Okay: 19 "... who reports to Dr Weissler. I asked him 20 if FDA is about to issue talc/asbestos regulations. He 21 said to the best of his knowledge, his records show 22 that they plan on having a regulation written by March 23 19, 1973. However, he will confirm this information to 24 me. I told him that it is my understanding that Dr 25 Lewin's report will also be released at that time and	Page 332 1 XRD -- 2 A Yeah. 3 Q -- at least what he's telling the FDA here is 4 that 1 per cent isn't detectable; right? 5 A Yeah. 6 Q Okay. 7 A I believe that at the time, yeah. 8 Q Meaning that, if you have a lot of talc or you 9 have a talc product and you use XRD on it to see if 10 there is asbestos present, if the amount of asbestos 11 present is less than 1 per cent and that's your limit 12 of detection, you're not going to see it; right? 13 A Yeah. 14 Q Okay. 15 All right, sir. You can set that aside. 16 MS FROST: Are you doing okay? 17 THE WITNESS: I'm fine, yeah. 18 MR PANATIER: You all right? 19 THE WITNESS: How are we doing? Yeah, we're 20 okay. 21 MR PANATIER: Okay. All right. 22 THE WITNESS: Another hour yet. 23 MR PANATIER: This will be Exhibit 58. 24 (Exhibit 58 marked for identification) 25 Q So this is Colorado School of Mines,
Page 331 1 that our latest information from Dr Schaffner is that 2 Dr Lewis found J&J products to be freed of asbestos 3 with the exception of one medicated powder sample which 4 showed 'traces of asbestos'. I said that traces of 5 asbestos means that it is probably less than 1%, 6 i.e., not detectable by x-ray". 7 Okay. First of all, did I read that right? 8 A You read that correctly, yes. 9 Q Okay. 10 Then off the side there's a handwritten note. 11 It's kind of hard to read, but I think you can figure 12 it out. It says: 13 "Reports we said traces of tremolite". 14 Do you agree with my interpretation of the 15 handwriting? 16 A I think that's what it says, yeah. 17 Q Okay. 18 So perhaps he might have said traces of 19 tremolite, instead of asbestos, but he wrote "traces of 20 asbestos"; right? 21 A Yeah, that's what he wrote, yes. 22 Q Okay. 23 When we get down to the methods that are 24 being used to detect asbestos in talc, what Dr Nashed 25 says is that, if you're going to use x-ray diffraction,	Page 333 1 February 26, 1973, and they are reporting to Bill 2 Ashton; right? 3 A Yes. 4 Q Now, what was Bill Ashton's title? 5 A He was -- he had one job role that was to be 6 essentially head of talc, to know everything about 7 talc. 8 He was a senior scientist and he was what you 9 might call Mr Talc. 10 Q He was? 11 A He was the point person for talc. 12 Q And at one point -- I think we're going to see 13 a document -- but at one point there's a company 14 directive to funnel everything through Ashton; right? 15 A Yeah. 16 Q Yeah. Okay. 17 So here's the first time we've seen -- well, 18 we've seen his name before, but here he is with 19 Colorado School of Mines reporting to him, and it says: 20 "In compliance with your request, 21 mineralogical studies were made on the following 22 talc[s] ..." 23 And it's different names. 24 30-71, 30-B-71, et cetera, et cetera. 25 Okay. Now, do you know the source of these

Page 334 1 talcs, sir? 2 A I don't, no. But I do know that I worked -- 3 Bill Ashton reported to me back in the 1990s and I know 4 that he regularly, even then, was getting talc samples 5 from mining companies all over the world. 6 Q Okay. 7 A And he would maybe have them evaluated. 8 But I don't know where these came from or 9 what they are. 10 Q I think we'll see, and I'm going to write them 11 on the board, because I think we're going to see that 12 these designations typically were the Windsor mine 13 weekly samples, or periodic samples, the way that those 14 are written. 15 So I'm going to write a few of those down, 16 just so we can compare them for future. But what we'll 17 do now is we'll leave it ambiguous. 18 What we have is February 26, '73, and I'll 19 write the samples here. We have 30-71-S, 30-B-71-S, 20 30-C-71-S and 34-71-S. 21 Okay? 22 A Yeah. 23 Q And then we have results for each one. 24 Now, these were x-ray diffraction and 25 microscopic studies; correct?	Page 336 1 32-71-S, serpentine -- I'm just going to put "serp 2 chrysotile(?) question mark". 3 A Yeah. Maybe. Yeah. 4 Q Is that okay if I put a question mark? 5 A Yes. 6 Q Okay. 7 Right. So that's 73. 8 You can set that aside, or you can look at 9 it, as long as you wish. 10 A It's interesting, yeah. 11 Q It is all very interesting. I'll give you 12 that. 13 Okay, 111. This will be Exhibit 59. 14 (Exhibit 59 marked for identification) 15 This is -- the memo is called 16 Dispersion-Staining Examination of Retained Samples of 17 Johnson's Baby Powder -- Project No. 503. 18 Now, retained samples. It was J&J's policy 19 to retain for at least a certain amount of time 20 representative samples of its products; correct? 21 A Yes. 22 Q Right. 23 So if something came up, it could go back and 24 check those samples? 25 A Yeah, and that's -- that's current practice
Page 335 1 A Yes. 2 Q Right. Okay. 3 So they're using the x-ray and a microscope 4 to see what's in each of these samples; correct? 5 A Correct, yes. 6 Q So in 30-71-S, Colorado School of Mines reports 7 trace of tremolite actinolite; right? 8 A Yes. 9 Q In 30-B-71-S, again, another trace of tremolite 10 actinolite; right? 11 A Yeah. 12 Q In 30-C-71-S, doesn't report finding any 13 amphibole minerals; right? 14 A No, that's correct. 15 Q In 32-71-S, slight trace of anthophyllite; 16 right? 17 A Yeah, followed by a question mark. 18 Q Right. Okay. You're correct. 19 So we're going to do: trace anthophyllite(?), 20 question mark. Okay. 21 Then it says 32-71-S is suspected to contain 22 a very minor amount of serpentine which may be 23 chrysotile; right? 24 A That's what it says. 25 Q So that one -- I have to write that one down:	Page 337 1 across the whole industry with lotions, shampoos, you 2 keep a retain in case anyone has a question. 3 Q Yeah. 4 A Usually for a few years. 5 Q So this is April 19, 1973, and this is from 6 David Hamer. Do you know who that is? 7 A No, I don't. 8 Q Okay. 9 And by the way, down at the bottom it gives 10 us the dates of the retained samples, '72 and '73; 11 right? 12 A Yeah. 13 Q Four samples from the years '72 and '73. 14 A Yeah. 15 Q And there's again a lot of cc's, but they're at 16 the top on this one; right? 17 A Yes. 18 Q Looks like nine cc's. So nine other people got 19 this; right? 20 A Yes. 21 Q Including Ashton; right? 22 A Yeah. 23 Q April 19, '73. 24 And what it says here is: 25 "Twenty-five samples of JOHNSON'S ... Baby

Page 338 1 Powder representing retained samples from both ESDP 2 ..." 3 What's that? 4 A It stands for the Eastern Surgical Dressings 5 Plant, which was in North Brunswick, New Jersey. 6 Q "... and Chicago facilities were examined 7 microscopically by the Dispersion-Staining technique 8 for the presence of tremolite. Four of these samples 9 ..." 10 And then it's got a footnote saying which 11 ones: 12 "... are suspected of containing tremolite 13 based on the finding of one or two 'fibers' per sample 14 which satisfy the color/morphology criteria". 15 So four of 25 Johnson & Johnson Baby Powder 16 samples have tremolite, and I'll put it in quotes like 17 he does "fibers"; is that right? 18 A Well, it actually says "suspected of". 19 MS FRAZIER: Got disconnected again. 20 BY MR PANATIER: 21 Q That's fine. I'll put "(suspected)" in 22 parenthesis; is that okay? 23 A Yeah. 24 MS FRAZIER: Do you want to stop for just a 25 second? They got disconnected on the phone one more	Page 340 1 that? 2 A Yes. 3 Q That is eight days after the memo we just 4 looked at; right? 5 A Yeah. 6 Q And I believe this is the same four samples. 7 I'll just double check ... 8 A It is. 9 Q It is. Okay. 10 A It is, yeah. 11 Q All right. 12 So it's the same four samples that we just -- 13 you and I just looked at. 14 And what it says here is Microscopic 15 Examination of Johnson's Baby Powder for amphibole 16 (tremolite-actinolite). It's got the same lot numbers. 17 It says: 18 "Petrographic optical microscopy revealed 19 'trace' amounts of amphibole in each of the above 20 samples". 21 So that's been confirmed that they are 22 amphibole; correct? 23 A Yeah, that's what it says, yes. 24 Q Okay. All right. 25 I just want to make sure we have this
Page 339 1 time. 2 MR PANATIER: That's fine. That's fine. I 3 just wanted to finish that little tidbit. 4 Okay. Let's go off. 5 (Off the record 5:19 pm) 6 (On the record at 5:21 pm) 7 BY MR PANATIER: 8 Q Okay. 9 So they say we're not sure about these 10 results; right? 11 A Yeah. In fact, the very last paragraph says: 12 "The Dispersion-Staining method is by no 13 means infallible ..." 14 Described as: 15 "... an indefinite method for chrysotile or 16 tremolite ..." 17 Q Right. 18 A "... results should be considered as 19 preliminary screening rather than definitive analysis". 20 Q Right. Okay. 21 So let's look at more analysis. They 22 actually do analyze those more. 23 This will be Exhibit 60. 24 (Exhibit 60 marked for identification) 25 So this is from April 27 of '73. Can you see	Page 341 1 accurate. 2 So on 4.27, confirm amphibole in four 3 samples, and then it says: 4 "Based on the numbers of particles scanned, 5 we estimate [the] 'trace' amounts to be .001 to .1 ... 6 by weight". 7 Right? 8 A Yes. 9 Q Then let's go to the description of the 10 particles. 11 It says: 12 "Shape: Prismatic, columnar, parallel-sided 13 rods. 14 Size: From 20 x 4 microns to 200 x 30 15 microns". 16 Right? 17 A Yes, that's what it says. 18 Q So size. So I'm going to write "size". 19 I'll do it in a different color so we can 20 change this up. 21 Size: 20 x 4 is a 5-to-1 aspect ratio; right? 22 A Yes. 23 Q And 20 x 30? Can you do that? Is that about 24 -- 25 A That's a 6-to-1.

Page 342 1 Q 6-to-1? 2 A Give or take, yes. 3 Q Okay. 4 It says: 5 "The optical properties of the particles are 6 closer to actinolite than tremolite". 7 Right? 8 A That's what it says, yes. 9 Q Okay. You can set that aside, sir. 10 So let's talk a little bit about how Johnson 11 & Johnson defines asbestos internally; okay? 12 What is TM7024? 13 A TM stands for test method. I can't instantly 14 remember which one that related to -- 15 Q I believe -- 16 A -- of which there are many. 17 Q Sure. 18 I believe it's the TEM test method. 19 A Okay. 20 Q For asbestiform minerals. 21 (Exhibit 61 marked for identification) 22 Here's your copy. 23 A Thank you. 24 Q Now, this is from 1995. 25 Do you remember when TM7024 was issued?	Page 344 1 Q So Johnson & Johnson internally defines fiber 2 as an elongated particle with parallel sides and an 3 aspect ration of 3:1? 4 A They do, yes. 5 Q And I mean -- I assume that means at least 3:1? 6 A Yes. 7 Q Right. Okay. 8 So in the document we just looked at, we have 9 four samples that have parallel sided particles and 10 aspect ratios of 5:1 to 6:1. 11 Under Johnson & Johnson's own definition of 12 fiber, these are fibers; correct? 13 A They are, yes. 14 Q All right, sir. You can set that aside. 15 Okay. Here is the next one. This is Exhibit 16 62. 17 (Exhibit 62 marked for identification) 18 Right, sir. June 4, 1973. This is from 19 Shelley to seven different people, including Ashton, 20 Nashed, Goudie, Hildick-Smith, Fuller, people we've 21 seen before; right? 22 A Sure. 23 Q And it says: 24 "Dr Hildick-Smith and I met with our English 25 cohorts to discuss the talc program. Much of the
Page 343 1 A Well, on here it says 1995. 2 Q Well, that's -- okay. All right. 3 A I mean, this is revision 1. So there would 4 have been an earlier one. 5 Q Yeah. 6 Do you know when that earlier one started? 7 A I don't. No, I don't. 8 Q So let's look at definition of a fiber; okay? 9 If you go to page 7 of 9 at the bottom -- well, there's 10 like three different page numbers on there. It's the 11 one that is 5038. 12 A Yeah. 13 Q Okay. 14 Under TEM Analysis, it says: 15 "Definition of a fiber ..." 16 Right? 17 A Yes. 18 Q "An elongated particle with parallel sides and 19 an aspect ratio K3:1 ..." 20 That means three times longer than it is 21 wide; right? 22 A Yes. 23 Q The definition employed may vary with the needs 24 of the client; okay? 25 A Yes.	Page 345 1 discussion is outlined in the attached report. 2 One important point which was covered was 3 that the British Toilet Preparations Federation is 4 drafting specifications for the analysis of 'asbestos' 5 in talc. Their methods involve concentration 6 techniques and will therefore be much more sensitive 7 than our proposed specifications". 8 Now, are you conversant on what these 9 concentration techniques are? 10 A No. 11 Q Okay. 12 A 1973, I was not involved. 13 Q Okay. 14 Well, now, having reviewed the documents, 15 you're aware that Pooley specifically was proposing a 16 way to be able to pull out at least a percentage of the 17 talc particles to then be able to concentrate it 18 down -- 19 A Yes. 20 Q -- and see other minerals that were present; 21 right? 22 A Yes, yes. 23 Q And so that's what they're talking about here; 24 correct? 25 A Yeah.

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1 Q All right.

2 "Apparently the Italian 00000 talc passed

3 this test, and of course Vermont talc does too for

4 chrysotile."

5 A Yeah.

6 Q "However, I expressed my concern that Vermont

7 talc may occasionally show traces of tremolite by this

8 procedure."

9 Right? So Shelley is saying if Pooley uses

10 the concentration technique, we might actually see the

11 tremolite; right? In the Vermont talc; right?

12 A That's what he's suggesting.

13 Q Okay.

14 "I pointed out to Bob Dean that there was no

15 specific evidence that traces of tremolite in talc

16 posed any hazard, rather that the evidence indicated no

17 toxic problem".

18 Now, what research by June 4, 1973, had

19 Johnson & Johnson done to assess the hazard of

20 tremolite asbestos inhaled by children?

21 A Right. Okay. You've used the word tremolite

22 asbestos.

23 Q I have.

24 A My understanding is that the tremolite, if it

25 were found, is not asbestiform. It's in the massive or

Page 347

1 prismatic crystalline form.

2 Q Okay.

3 Well, the ones that we just looked at from

4 April of '73, which is two months before this, meet

5 Johnson & Johnson's definition of a fiber; correct?

6 A Of a fiber, yes.

7 Q Right.

8 A But not asbestos fiber.

9 Q Well, they're amphiboles. Is amphibole a

10 necessary prerequisite to asbestos, if you're not

11 talking about chrysotile?

12 A No, no. You can have amphibole materials that

13 are not asbestos.

14 Q But listen to my question.

15 Is having amphibole -- excluding chrysotile

16 for a second, you have to have an amphibole before you

17 can have asbestos?

18 A Yes.

19 Q Okay. That's what I'm asking.

20 And we have that there in '73; correct?

21 A You have, but it's not confirmed it was

22 asbestos.

23 Q By the way, did anybody write back -- did you

24 ever see anybody write back to the April 19 or 27 memo

25 that we just talked about where they said, "Well, is it

Page 348

1 asbestos or not?"

2 A I've not seen a memo.

3 Q Okay.

4 A There may well be one, but I've not seen it.

5 Q All right.

6 "Bob agreed to review the tremolite aspects

7 with TPF, and hopefully will be able to limit the

8 analytical method to chrysotile".

9 Do you see that?

10 A Yeah, that's what he's saying.

11 Q Okay.

12 So here Shelley at Johnson & Johnson -- this

13 is a Johnson & Johnson employee; right?

14 A Yeah.

15 Q He's saying that, well, Pooley's concentration

16 method doesn't see chrysotile in Vermont or Italian.

17 It may show traces of tremolite; right?

18 A It may.

19 Q So he said:

20 "... hopefully ... [we'll] be able to limit

21 the ... method to chrysotile".

22 Right?

23 A Yeah.

24 Q The reason for doing so is because if you

25 include tremolite, you might see it; right?

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1 A You'll still see it whether you deliberately

2 intend to include it or not.

3 As we've seen, or claim to see in so many of

4 these analyses, if tremolite's there, the existing

5 methods will pick it up.

6 You don't need to concentrate it to pick it

7 up.

8 Q Well, what if it's below the limit of

9 detection, sir? That's the whole point.

10 A Well, the limit of detection, let's say it's

11 .0001 per cent, the essence of science is that if you

12 do a study once, you get a result; if you do it ten

13 times, your assurance of getting the finding or not

14 finding is increased ten-fold. If you do it a hundred

15 times and you can be pretty sure that that result will

16 reflect the equivalent of concentrating. It's another

17 way of looking at it.

18 Statistically, you do a test a certain number

19 of times; the more you do it, the higher your level of

20 assurance that what you've got is what you're going to

21 find.

22 Q A couple of issues with that.

23 First of all is, since the mines change,

24 what's in the actual ore coming out changes; correct?

25 A That's correct.

Page 350 1 Q Okay. 2 And, as sources change, obviously what's in 3 the talc changes; true? 4 A Yes. 5 Q Okay. 6 And if we're talking about limit of 7 detection, right -- we'll go back to my magnifying 8 glass example, okay, because it's easy to understand -- 9 if I look a hundred, a thousand, a million times at my 10 skin with that magnifying glass, I am never going to 11 see bacteria; right? 12 A Correct. 13 Q Never, ever, ever. 14 A Yeah. 15 Q It's just not going to happen. 16 A Yeah. 17 Q That is not scientifically reliable because I 18 am not using a method that is sensitive enough; right? 19 A Correct. 20 Q Okay. 21 When we get to the issue of concentrating the 22 talc samples, what they are trying to do is to lower 23 the limit of detection for amphibole minerals; correct? 24 A That is a suggestion of the value of 25 concentrating.	Page 352 1 A Because -- there is a reason, and the reason is 2 that, in parallel, we know the industry was working on 3 the CTFA J4 test method, which would have given you the 4 same result as going through this hypothesis of 5 concentration. 6 It was a hypothesis and it's not been proven. 7 Q J4 wasn't passed for three more years? 8 A Correct, but Johnson & Johnson was using it 9 in -- at this point in time. 10 '73, '74, it was being used within J&J. 11 Q I don't agree with you, but we'll talk about 12 when they started using it. 13 If they were using it already, I expect he 14 would have mentioned it here. 15 But here's what we have: we have a guy saying 16 this method concentrates the ability -- this 17 concentration method lowers the limit of detection; 18 right? 19 A That's what he's saying, yes. 20 Q Right? 21 And when we apply it to Vermont, we see 22 tremolite. So let's limit it to chrysotile? 23 A Yeah, but, equally, I refute by saying that he 24 claims already to be finding tremolite in Vermont talc. 25 Q Yeah.
Page 351 1 But in parallel with this, we're very aware 2 that the CTFA specification was being worked up. In 3 fact, Johnson & Johnson were already pretty well using 4 it, so that you use other test methods. 5 And by using two or three additional test 6 methods, you would have achieved the same result as 7 whether you had concentrated it and analyzed it by 8 simple microscope, as these appear to be. 9 So the alternative was to use a range of more 10 sensitive test methods other than concentration. 11 Q I want to talk to you about this document. 12 A Yeah. 13 Q I don't what to talk to you about what you 14 think was going on outside of this document, because I 15 want to talk to you about this exchange between these 16 people. 17 And what Shelley says is: we want to limit 18 the method to chrysotile, and the reason is because 19 when we apply it to our Vermont talc, we find 20 tremolite; right? 21 A Well, that's what he's saying. 22 Q That is what he's saying? 23 A Yeah, yeah. 24 Q And there could be no good reason for doing 25 that, could there be?	Page 353 1 A You've shown me some results earlier, so you 2 don't need to concentrate it. 3 Q What about the fact that the ore changes, sir? 4 You have to continually monitor it; right? 5 A And certainly part of the requirement of the 6 mine audit is that there's a regular audit of the mine, 7 as well as the final product. 8 Q And they've come up with a way of auditing it 9 at a lower sensitivity to see it if it is there. 10 And Johnson & Johnson in this memo is saying: 11 let's not do it for tremolite because we can see it. 12 A Again, I think that's a misinterpretation. I 13 think the mine was already using a range of 14 sophisticated tests, x-ray diffraction, optical 15 microscopy, transmission electron microscopy, which 16 would pick it up if it were there. 17 Q Okay. 18 A So -- 19 Q Does he say that? 20 A No, but -- 21 Q Does he say the reason -- 22 A You know -- 23 Q -- we shouldn't do it -- hold on let me finish 24 the question. 25 Does he say the reason we shouldn't do it is

Page 354 1 because we already have this covered? 2 He doesn't say that at all, does he? 3 A No, but maybe he didn't -- wasn't aware. 4 I don't know. I'm not going to speak for 5 someone who's probably long dead. 6 Q Okay. 7 Well, sir, you are offering a plethora of 8 reasons why someone might say what he said, but -- 9 A I am. 10 Q -- right -- but you don't actually have any 11 evidence that that is why he said it; correct? 12 A No, I don't know what was in his mind when he 13 said this. 14 Q Right. Okay. 15 We only have his words; right? 16 A We have his words, yeah. 17 Q And we only have, if we're lucky enough to have 18 it, what someone else wrote back to him if they did; 19 right? 20 A Yes. 21 Q Okay. 22 So what we have here is we have the 23 opportunity for Johnson & Johnson to be able to 24 concentrate a sample and look for chrysotile and 25 tremolite, and the Johnson & Johnson guy says: let's	Page 356 1 A Yes. 2 Q And it is from AM Frank; correct? 3 A Yeah. 4 Q It's to Mr G Lee; right? 5 A Yes. 6 Q And who's G Lee? 7 A He was a scientist in our research and 8 development in Johnson & Johnson. George Lee. 9 Q Okay. 10 He says at the top: 11 "To formalize the audit testing currently 12 performed to ensure the absence of asbestos in Windsor 13 66 Talc ..." 14 That's the talc that was going into all the 15 products; right? 16 A Sure. 17 Q "... the follow protocol is currently being 18 used ..." 19 And it has the scope here, yada yada. 20 But they define asbestos below: 21 "Asbestos is defined to be the fibrous 22 serpentine, chrysotile ..." 23 Right. So the fibrous serpentine, 24 chrysotile: 25 "... and the fibrous forms of the amphibole
Page 355 1 just do chrysotile because when we apply it to 2 tremolite, we see it. 3 Correct? 4 A That's what he's saying. 5 Q Okay. 6 A And I offered an explanation that if we're 7 already using a series of other tests which would pick 8 up tremolite if it were present, why would you use 9 another method? 10 Q And he doesn't mention any other tests at all? 11 A He's not mentioned it, no. 12 Q Okay. You can set that aside, Sir. 13 This will be 64. 14 MS FROST: 64 or 63? 15 MR PANATIER: 63, like I said. 16 (Exhibit 63 marked for identification) 17 All right. 18 Folks on the phone, can you guys please make 19 sure that your stuff is muted. 20 Q All right. 21 The reason I am bringing up this document, 22 even though it's a little bit out of place in time, is 23 because we've been talking about how Johnson & Johnson 24 defines asbestos; okay? 25 And here is a memo from June 28, 1977; right?	Page 357 1 group as represented by amosite, anthophyllite, 2 crocidolite, tremolite asbestos and actinolite". 3 Right? 4 A That's the definition, yeah. 5 Q Okay. 6 So if it's a fiber and it's amphibole, it's 7 asbestos; right? 8 A By that definition, yes. 9 Q Okay. 10 And we know how Johnson & Johnson defines 11 fiber. They define it as parallel sides 3:1 or 12 greater; right? 13 A Back in whenever that was, '95. 14 Q That was '95; right? 15 A Yes, yes. 16 Q And here in '77, they're just saying if it's 17 fibrous? 18 A Yes. 19 Q But they don't tell us what they mean by fiber? 20 A They don't, no. 21 Q But between the two documents, certainly they 22 didn't advocate a lower aspect ratio in the '70s than 23 3:1, did they? 24 A I'm not aware of that, no. 25 Q Okay.

Page 358 1 So between the two documents, we have both 2 the definition of fiber -- 3:1, parallel sides -- and 3 we have the definition of asbestos which is fibrous and 4 the various minerals; correct? 5 A Correct. 6 Q All right. 7 Now, I actually have another question about 8 this, which is, if you go down under Testing 9 Requirements where it says Test Method, and it says. 10 "Characteristic: Fibrous Amphibole Forms, 11 CTFA J4-1 ..." 12 Now, that's '77? 13 A Yes. 14 Q And we know that J4 has been passed; correct? 15 A Yes, yes. 16 Q "Serpentine Forms: TM7019 ..." 17 Right? 18 A Yeah. 19 Q And: 20 "Asbestiform Minerals (fibrous forms) ... 21 7024 ..." 22 TEM; right? 23 A Yeah. 24 Q And it says the requirement is none detected? 25 A Yeah.	Page 360 1 (Exhibit 64 marked for identification) 2 There you are. All right. 3 So this is from June 4, 1973, Shelley to 4 Rolle. 5 Now, we've seen Shelley a few times; right? 6 A Yeah. 7 Q And this one actually has a received stamp for 8 Dr Nashed; right? 9 A Yes. 10 Q Cc'd were Ashton, Goudie, Nashed and Petterson; 11 true? 12 A Yeah. 13 Q Now, he's talking about the British Toilet 14 Preparations Federation again; right? 15 A Yeah. 16 Q Do you guys still have that here? 17 A It's now called CTPA, which is the equivalent 18 of CTFA. 19 Q Okay. 20 A Same -- same group, just changed the name. 21 Q All right. 22 So The British Toilet Preparations Federation 23 was the British equivalent of the CTFA? 24 A Correct. 25 Q I understand.
Page 359 1 Q Right? 2 Which means you don't see any? 3 A Yes. 4 Q Right. 5 But for any test method, if your level of 6 detection is not absolute zero, you can never know 7 whether there's actually zero asbestos there; isn't 8 that true? 9 A It's true with an additional statement, and 10 that is, as we said a little while ago, that when you 11 do test methods and test methodologies, if you're 12 dealing with parts per billion or parts per million, 13 you need to look at the overall trend. 14 If you do it on a two-weekly basis, whatever 15 that may be, or regular sampling, regular auditing, you 16 develop a very high level of confidence that if it says 17 non-detected and you don't find any week after week 18 after week, your statistical level of probability is 19 such that there ain't none there. It's non-detected. 20 Q So long as the level of sensitivity is 21 sufficient to detect what you're looking for; correct? 22 A Yes. 23 Q Okay. 24 You can set that aside, sir. 25 This will be 64.	Page 361 1 So it's not a government agency? 2 A No, no. 3 Q All right. 4 They are: 5 "... in the process of drafting 6 specifications on talc. These will involve density 7 concentration techniques followed by x-ray analysis. 8 Fred Pooley has developed the methods and checked the 9 Italian talc for chrysotile and other asbestos 10 contaminants. He found none; however, I am concerned 11 that our Vermont talc will from time to time show 12 traces of tremolite". 13 Now, that's the second time Mr Shelley has 14 said this? 15 A Yes. 16 Q Right? That, using Fred Pooley's concentration 17 techniques, they're going to see tremolite. 18 And he's not saying here: we've checked it, 19 we know it has tremolite, or we're doing lots of other 20 tests. 21 He's saying: I'm concerned that the result 22 will be we will see tremolite; right? 23 A That's what he's saying. 24 Q Okay. 25 "In order to check this, please send samples

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1 of Vermont talc from different batches directly to Fred
 2 Pooley, with the request that he check for tremolite by
 3 the proposed TPF method. I would suggest you send
 4 samples which we recently ran, if you have enough."
 5 Blah, blah, blah. Last paragraph:
 6 "Also, Fred Pooley would like about 250 grams
 7 of our process on the talc so that he may study the
 8 removal of tremolite. Please handle this".
 9 Right?
 10 A Yeah.
 11 Q So, one, this is Shelley reiterating that he's
 12 concerned that Pooley's concentration technique is
 13 going to show the tremolite that he believes to be
 14 there.
 15 And, two, they're going to send some samples
 16 to Pooley to see if he can study how to get it out;
 17 right?
 18 A Yeah. He's suggesting that there may be
 19 tremolite there and that Pooley's process may pick it
 20 up.
 21 Q Okay.
 22 A Yeah.
 23 Q Now, we know from just the mine sampling that
 24 there is tremolite in both the Italian and the Vermont
 25 mines; correct?

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1 A We know there is tremolite --
 2 Q Okay.
 3 A -- which is in the -- after so many, many
 4 examinations, is in the non-asbestos form. It's
 5 prismatic form.
 6 Q Right, and you and I are fighting over that,
 7 okay, because you have volunteered it many times, and
 8 I'm trying not to object to non-responsive, but we are
 9 going to talk about that.
 10 Next one is 123.
 11 VIDEOGRAPHER: Excuse me, you've got five
 12 minutes of film time.
 13 MR PANATIER: Okay, and that will probably be
 14 it.
 15 MS FROST: Perfect.
 16 MR PANATIER: And that will be it. Okay.
 17 Five more minutes, sir, and then you can
 18 forget about me for about 18 hours or so.
 19 THE WITNESS: I can never forget about you.
 20 (Briefly off the record)
 21 MR PANATIER: This will be Exhibit 65.
 22 (Exhibit 65 marked for identification)
 23 June 6, 1973. This is from DR Petterson.
 24 Now, I don't think I've asked you about who
 25 he was. Who is he?

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1 A He was -- I believe he was Medical Director.
 2 Q All right.
 3 A He was a medically qualified guy.
 4 Q Okay.
 5 A He worked at baby products company.
 6 Q All right.
 7 This is to Mortimer, Miller, Johnston and
 8 Stolzer.
 9 Now, I believe Miller is with Windsor?
 10 A Yes.
 11 Q Is he not?
 12 A Yes, he was.
 13 Q All right.
 14 Here is all I want to get to. This is
 15 June 6, '73, and this is two days after the memo we
 16 just saw; right?
 17 And it says:
 18 "Shelley reports that Pooley has found
 19 actinolite in our Vermont talc by his concentrating
 20 technique. Italian talc[s], by the same technique,
 21 appears to be free of amphiboles. I have sent the
 22 report -- the report referred of IW Sloan on to Roger
 23 Miller for their study".
 24 Did I read that right?
 25 A You read that correctly, yes.

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1 Q So here in -- this is June 6, '73.
 2 Report ... and the report is Pooley found
 3 actinolite in the Vermont talc; correct?
 4 A That's -- that's what he states, yes.
 5 Q And by the way, the -- yeah, okay.
 6 Now, they don't take issue in this memo. Now
 7 we have a follow up memo to something Shelley has said,
 8 but no one takes issue with the fact that what is being
 9 reported actually happened; right?
 10 A Yeah.
 11 Q Right?
 12 And no one is saying: yeah, we don't need to
 13 do this anyway because we already tested it; right?
 14 A Yeah, there's no response this letter, if
 15 that's what you're asking, yeah.
 16 Q Well, this is sort of -- this is the follow up
 17 to Shelley two days earlier --
 18 A Sure.
 19 Q -- talking about it; right?
 20 A Yeah.
 21 Q Okay. Right. You can set that aside, sir.
 22 Three minutes. Okay. I'm going to do it.
 23 124. This will be Exhibit 66.
 24 (Exhibit 66 marked for identification)
 25 All right. This is the same day, June 6;

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1 right?

2 A Yeah.

3 Q And this is from Robert Rolle, cc'ing a bunch

4 of people to Pooley, and he says:

5 "[In this shipment I'm sending you] ... will

6 be 3 three-hundred gram samples of production Vermont

7 Talc for your study to remove tremolite".

8 Right?

9 A Yeah.

10 Q So same day. J&J to Pooley: please study

11 removal of tremolite; right?

12 A Yes.

13 Q Okay.

14 Because if they couldn't figure out a way to

15 remove it, they knew it would be detected by his

16 concentration technique; correct?

17 A Yeah.

18 Q Okay.

19 And why remove it if it's not a -- if it's

20 not a hazard?

21 A I don't know. It's probably not ideal, but --

22 Q It's a good question; right?

23 A -- the -- as we've said before, the reports

24 from many, many examinations of Vermont talc indicated

25 that there was not asbestos there or asbestiform

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1 tremolite.

2 Q From their consultants; right?

3 A Well, from independent experts, yeah.

4 Independent, surely?

5 You don't buy Princeton University or you

6 don't buy the United States Bureau of Mines or the

7 Colorado School of Mines.

8 Q Okay.

9 A You just don't buy those people.

10 Q And we'll get to that tomorrow.

11 But the bottom line is they sure are taking a

12 lot of trouble to try to get the tremolite out of the

13 talc, aren't they?

14 A It's a research project.

15 Q Okay.

16 A These research guys often do that kind of those

17 thing. They go off a little side alley and say, "Let's

18 examine this".

19 Q And at Johnson & Johnson, you could just do

20 whatever side projects you want?

21 A It wasn't unusual.

22 Q Okay. All right.

23 Those are all the questions I have right now.

24 We'll come back tomorrow.

25 (Whereupon the deposition was adjourned at 5:50 pm)

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1	CERTIFICATE OF DEPONENT
2	
3	I, JOHN HOPKINS, hereby certify that I have read the
4	foregoing pages, numbered 1 through 366, of my
5	deposition of testimony taken in these proceedings on
6	Tuesday, August 15, 2017, and, with the exception of
7	the changes listed on the next page and/or
8	corrections, if any, find them to be a true and
9	accurate transcription thereof.
10	
11	Signed:
12	Name: JOHN HOPKINS
13	Date:
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1 CERTIFICATE OF COURT REPORTER

2
3 I, DEIRDRA JORDAN, an Accredited Court Reporter,
4 hereby certify that the testimony of the witness, JOHN
5 HOPKINS, in the foregoing transcript taken on Tuesday,
6 August 15, 2017, was recorded by me in machine
7 shorthand and was thereafter transcribed by me; and
8 that the foregoing transcript is a true and accurate
9 verbatim record of the said testimony.

10
11
12 I further certify that I am not a relative, employee,
13 counsel or financially involved with any of the
14 parties to the within cause, nor am I an employee or
15 relative of any counsel for the parties, nor am I in
16 any way interested in the outcome of the within cause.

17
18
19 Signed:

20 Name: DEIRDRA JORDAN

21 Date:
22
23
24
25

1 ERRATA SHEET

2 Priority-One Court Reporting/Veritext
718-983-1234

3 ASSIGNMENT NO. P1-2657967

4 CASE NAME: Herford, Verdolotti, Teuscher & Etheridge v.

Asbestos/Johnson & Johnson

5 DATE OF DEPOSITION: 8/15/2017

6 WITNESS' NAME: Dr. John Hopkins Vol 1

7 PAGE/LINE(S)/ CHANGE REASON

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21 Dr. John Hopkins Vol 1

(Notary not required in California)

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OF , 2017.

24 NOTARY PUBLIC

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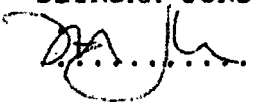
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shorthand and was thereafter transcribed by me; and
that the foregoing transcript is a true and accurate
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parties to the within cause, nor am I an employee or
relative of any counsel for the parties, nor am I in
any way interested in the outcome of the within cause.

Signed: August 25, 2017

Name: DEIRDRA JORDAN

Date: 

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any way interested in the outcome of the within cause.

Signed: August 25, 2017
Name: DEIRDRA JORDAN
Date: 

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