FINAL PLAYED

Reeves, William 01-23-2019
Reeves, William 01-24-2019

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10:11 - 10:21	**Reeves, William 01-23-2019 (00:00:19)** 10:11 Q. Good morning, sir. 10:12 A. Good morning. 10:13 Q. My name is Brent Wisner, and I represent 10:14 the plaintiff in this lawsuit. I understand you have 10:15 been put forward as a witness to testify on behalf of 10:16 Monsanto; is that correct? 10:17 A. That's correct. 10:18 Q. What is your understanding of what your 10:19 role is here? 10:20 A. My role here is to represent the company 10:21 and speak on their behalf.	REEVES_COMBINED_03.1
12:12 - 12:20	**Reeves, William 01-23-2019 (00:00:13)** 12:12 Q. You also understand that you're under oath 12:13 here? 12:14 A. Yes. 12:15 Q. What is your understanding of that oath? 12:16 A. My job is to tell the truth. 12:17 Q. Great. And although we are not in a 12:18 courtroom right now, you understand this is a formal 12:19 court proceeding? 12:20 A. Yes, I do.	REEVES_COMBINED_03.2
15:20 - 16:2	**Reeves, William 01-23-2019 (00:00:10)** 15:20 Q. Do you have a scientific background? 15:21 A. Yes, I do. 15:22 Q. What is that? 15:23 A. I have a PhD in toxicology and a 15:24 bachelor's degree in biology. 16:1 Q. And where did you get your PhD from? 16:2 A. Texas A&M.	REEVES_COMBINED_03.3
16:8 - 16:16	**Reeves, William 01-23-2019 (00:00:15)** 16:8 Q. And where did you go to undergrad? 16:9 A. University of Missouri. 16:10 Q. And how long have you been -- are you 16:11 employed at Monsanto? 16:12 A. Yes, I am. 16:13 Q. Now Bayer, I assume? 16:14 A. Bayer. That's right. 16:15 Q. How long have you worked there? 16:16 A. Twelve years.	REEVES_COMBINED_03.4

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33:15 - 33:20	**Reeves, William 01-23-2019 (00:00:12)** 33:15 Q. (By Mr. Wisner) And in the animal 33:16 toxicology realm, Monsanto has done two animal 33:17 toxicology studies; correct? 33:18 A. We have three there, so it's -- 33:19 Q. Two rat, one mouse? 33:20 A. That's right.	REEVES_COMBINED_03.5
154:5 - 154:22	**Reeves, William 01-23-2019 (00:00:40)** 154:5 Q. So we have the AHS. And I want to talk to 154:6 you a little bit about the AHS. And I understand it's 154:7 Monsanto's position -- correct me if I'm wrong -- that 154:8 you guys believe the AHS is the most reliable and best 154:9 of the epidemiological studies? 154:10 A. Our position is that the agricultural 154:11 health study with -- as envisioned -- as described at 154:12 the case control studies that they've done -- or I'm 154:13 sorry, as the cohort study -- provides the most 154:14 comprehensive look at pesticide exposure and health 154:15 risk, particularly with respect to glyphosate and 154:16 cancer. 154:17 Q. Do you believe there's any problems with 154:18 the study? 154:19 A. With the agricultural health study? Is 154:20 there a particular part of it? This is a very -- so 154:21 it's a very large study that looks at a lot of 154:22 different endpoints.	REEVES_COMBINED_03.6
155:12 - 155:19	**Reeves, William 01-23-2019 (00:00:18)** 155:12 Q. (By Mr. Wisner) Well, fair enough. I'm 155:13 not talking about the overall AHS study. I'm talking 155:14 about these two publications right here in front of us 155:15 that relate to glyphosate; right? 155:16 A. That is correct. 155:17 Q. And so my question is, does Monsanto right 155:18 now have any criticisms of the AHS's analysis of 155:19 Roundup?	REEVES_COMBINED_03.7
155:21 - 156:14	**Reeves, William 01-23-2019 (00:00:33)** 155:21 A. Could you help me understand your question 155:22 a little more? Just in terms of -- 155:23 Q. (By Mr. Wisner) What don't you understand 155:24 about my question?	REEVES_COMBINED_03.8

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	156:1 A. Well, is there a document that you're 156:2 talking about, or is it just in general speaking at a 156:3 very high level about these two studies? 156:4 Q. Listen, you're here to speak for Monsanto 156:5 about its views and positions regarding epidemiology; 156:6 right? 156:7 A. Yes, I am. 156:8 Q. And I'm talking about two epidemiology 156:9 studies, and I'm just asking you straightforward, do 156:10 you think there are anything wrong with those studies? 156:11 A. We believe that both of those studies are 156:12 of high quality and do provide valuable information. 156:13 Q. So there's no criticisms that you can 156:14 think of offhand?	
156:16 - 156:17	**Reeves, William 01-23-2019 (00:00:04)** 156:16 A. We would have to go through the study 156:17 line-by-line to understand that.	REEVES_COMBINED_03.9
156:24 - 157:5	**Reeves, William 01-23-2019 (00:00:13)** 156:24 Q. Now, it's true that numerous Monsanto 157:1 employees have made comments about the AHS before the 157:2 results were learned about; correct? 157:3 A. That is true. 157:4 Q. And those comments about the AHS were not 157:5 particularly flattering, were they?	REEVES_COMBINED_03.10
157:8 - 157:11	**Reeves, William 01-23-2019 (00:00:07)** 157:8 A. Sorry. Is there a document that you'd 157:9 like to discuss? 157:10 Q. (By Mr. Wisner) Sure, we can go through 157:11 them. I'll hand you Exhibit 20 to your deposition.	REEVES_COMBINED_03.11
157:16 - 158:14	**Reeves, William 01-23-2019 (00:00:40)** 157:16 Q. So this is a document. It's dated July 157:17 22nd, 1997; right? 157:18 A. That is correct. 157:19 Q. And this is obviously before Monsanto knew 157:20 of any of the results of the agricultural health study 157:21 as it relates to Roundup? 157:22 A. That is correct. 157:23 Q. And this was a document prepared by John 157:24 Acquavella? 158:1 A. Yes.	REEVES_COMBINED_03.12 EXHIBIT 169.1.2

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	158:2 Q. And he had at this time was an	
	158:3 epidemiologist employed by Monsanto?	
	158:4 A. That is correct.	
	158:5 Q. And just by curiosity, does Monsanto	
	158:6 currently employ any epidemiologists?	
	158:7 A. Not to my knowledge, no.	
	158:8 Q. After Dr. Acquavella left, do you know if	
	158:9 they ever hired an epidemiologist as an employee?	
	158:10 A. Not to my knowledge.	
	158:11 Q. So this is July 22nd, 1997, and he	
	158:12 prepares this document to the communications	
	158:13 subcommittee. Do you see that?	
	158:14 A. That is correct.	
159:11 - 159:15	**Reeves, William 01-23-2019 (00:00:08)**	
	159:11 Q. (By Mr. Wisner) Well, this was a document	
	159:12 produced to us by your company in this litigation, and	
	159:13 you agree that Dr. Acquavella is discussing the AHS in	
	159:14 this document?	
	159:15 A. Yes.	
160:15 - 161:22	**Reeves, William 01-23-2019 (00:01:08)**	
	160:15 Let's	
	160:16 go to the exposure assessment.	
	160:17 Do you see that?	
	160:18 A. I do see that.	
	160:19 Q. And you understand that one of the big	
	160:20 criticisms that our -- the plaintiff's experts have	
	160:21 raised with the AHS is specifically about exposure	
	160:22 misclassification.	
	160:23 Do you know that?	
	160:24 A. I do -- yes, I have heard that.	
	161:1 Q. Well, let's see what Dr. Acquavella has to	
	161:2 say. He says under exposure assessment, the exposure	
	161:3 assessment in the AHS will be inaccurate.	
	161:4 You see that?	
	161:5 A. I do see that.	
	161:6 Q. He doesn't say could be; right?	
	161:7 A. I understand -- seeing the words on the	
	161:8 page.	
	161:9 Q. He says will be inaccurate; right?	
	161:10 A. He used those words.	

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	161:11 Q. And that's what he said about the AHS 161:12 before he ever knew the results related to glyphosate, 161:13 or Roundup? 161:14 A. That's correct. 161:15 Q. And the next sentence reads inaccurate 161:16 exposure -- sorry, the next paragraph -- inaccurate 161:17 exposure classification can produce spurious results. 161:18 The conventional thinking in epidemiology is that 161:19 exposure misclassification will most often obscure 161:20 exposure disease relationships. 161:21 Do you see that? 161:22 A. I do see that.	
217:12 - 217:13	**Reeves, William 01-23-2019 (00:00:07)** 217:12 Q. I'm going to hand you the next document. 217:13 This is Exhibit 27?	
218:2 - 218:12	**Reeves, William 01-23-2019 (00:00:15)** 218:2 Q. So you've seen this document before; 218:3 right? 218:4 A. Yes, I have. 218:5 Q. This is a document from the EPA; correct? 218:6 A. That is correct. 218:7 Q. And it's -- the date on here is March 4th, 218:8 1985; do you see that? 218:9 A. Yeah, stamped at the top. 218:10 Q. And it's titled consensus review of 218:11 glyphosate; right? 218:12 A. That is correct.	
218:15 - 219:10	**Reeves, William 01-23-2019 (00:00:44)** 218:15 Q. It's a document that Monsanto has 218:16 considered in assessing its assessment of the safety of 218:17 glyphosate? 218:18 A. That's correct. 218:19 Q. It reads on February 11th, 1985, a group 218:20 of toxicology branch personnel met to evaluate and 218:21 discuss the database on glyphosate, and in particular 218:22 the potential oncogenic response of glyphosate. 218:23 Did I read that correctly. 218:24 A. That's correct. 219:1 Q. And then it says the following persons 219:2 were in attendance. Do you see that?	

Page/Line	Source	ID
	219:3 A. I do see that.	
	219:4 Q. And there are -- one, two, three, four,	
	219:5 five, six, seven -- eight people listed. Do you see	
	219:6 that?	
	219:7 A. I do see that.	
	219:8 Q. And by my count, there's -- one, two,	
	219:9 three, four, five -- six different PhDs. Is that	
	219:10 right?	
219:11 - 220:23	**Reeves, William 01-23-2019 (00:01:12)**	
	219:11 A. Six -- yes, that's correct.	
	219:12 Q. And then there's a statistician in there?	
	219:13 A. That's correct.	
	219:14 Q. There's a DABT. Do you see that?	
	219:15 A. Yes, I do.	
	219:16 Q. What's a DABT?	
	219:17 A. That's a diplomate of the American Board	
	219:18 of Toxicology.	
	219:19 Q. Is that a really fancy degree?	
	219:20 A. It is a certification you can get for	
	219:21 taking a test.	
	219:22 Q. And that's specifically as it relates to	
	219:23 toxicology?	
	219:24 A. It's typically about -- it focuses on how	
	220:1 toxicology studies are conducted.	
	220:2 Q. Oh, okay. Well, that's appropriate.	
	220:3 We're dealing here with a toxicology study; right?	
	220:4 A. Yes, we are.	
	220:5 Q. And then you see it's actually signed by	
	220:6 every one of those people. Do you see it?	
	220:7 A. Yes, I do see that.	
	220:8 Q. And one of them was obviously Dr. Dykstra;	
	220:9 right?	
	220:10 A. That's right.	
	220:11 Q. And it says right underneath all their	
	220:12 signatures, the signatures above indicate concurrence	
	220:13 with this consensus report; right?	
	220:14 A. That's correct.	
	220:15 Q. And if we turn to Section E in this	
	220:16 report, there is a classification of glyphosate. Do	
	220:17 you see that?	

Page/Line	Source	ID
	220:18 A. I do see that.	
	220:19 Q. And it reads in accordance with EPA	
	220:20 proposed guidelines, the panel has classified	
	220:21 glyphosate as a Category C oncogen.	
	220:22 Do you see that?	
	220:23 A. I do see that.	
222:4 - 222:5	**Reeves, William 01-23-2019 (00:00:06)**	
	222:4 Q. I'm giving you Exhibit 28. This is an	
	222:5 internal Monsanto document.	
222:13 - 223:23	**Reeves, William 01-23-2019 (00:01:12)**	
	222:13 Q. So this is an internal Monsanto document.	
	222:14 It's dated February 22nd, 1985; correct?	
	222:15 A. Yes, that's correct.	
	222:16 Q. So this is after that February 11th, 1985,	
	222:17 consensus meeting; correct?	
	222:18 A. That's correct.	
	222:19 Q. And this was a document prepared in the	
	222:20 regular course of Monsanto's business; correct?	
	222:21 A. That's correct.	
	222:22 Q. And it says right here regarding meeting	
	222:23 February 21st, 1985. Do you see that?	
	222:24 A. I do see that.	
	223:1 Q. And it appears that there were different	
	223:2 people who were present at that meeting; right?	
	223:3 A. Yes, it lists a group of people.	
	223:4 Q. And it looks like there was people from	
	223:5 the EPA?	
	223:6 A. That's correct.	
	223:7 Q. And there were Monsanto employees;	
	223:8 correct?	
	223:9 A. That's correct.	
	223:10 Q. And one person by the name of Fred	
	223:11 Johannsen?	
	223:12 A. Yes, I see that name.	
	223:13 Q. And his initials would be F.J.; right?	
	223:14 A. Yes, that's correct.	
	223:15 Q. And in the document, it says the meeting	
	223:16 mood was relaxed, informal, and open. The toxicology	
	223:17 branch had decided on a course of action on February	
	223:18 11th.	

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	223:19 Do you see that?	
	223:20 A. I do see that.	
	223:21 Q. That's referring specifically to that	
	223:22 consensus document we just looked at?	
	223:23 A. Yes.	
224:18 - 226:9	**Reeves, William 01-23-2019 (00:01:17)**	
	224:18 Q. But anyway, if you turn the page, there is	
	224:19 a section that says concerns of toxicology branch.	
	224:20 Do you see that?	
	224:21 A. Yes, I see that.	
	224:22 Q. And it says Dr. Farber opened the meeting	
	224:23 by reciting the conclusions of the toxicology branch	
	224:24 internal peer review. Do you see that?	
	225:1 A. I do see that.	
	225:2 Q. And he says oncogenic in mouse, IARC	
	225:3 ranking C. Do you see that?	
	225:4 A. I do see that.	
	225:5 Q. Possible human carcinogen, one of the	
	225:6 weaker ones by that system. Do you see that?	
	225:7 A. Yes, I do.	
	225:8 Q. Company's letter was too weak to be	
	225:9 convincing. Did I read that right?	
	225:10 A. Yes, you did.	
	225:11 Q. Biologically significant rare tumors. Do	
	225:12 you see that?	
	225:13 A. I do see that.	
	225:14 Q. Statistically significant at an .05 level,	
	225:15 cited Tyrone at NTP. Do you see that?	
	225:16 A. I do see that.	
	225:17 Q. And NTP, that's the national toxicology	
	225:18 program?	
	225:19 A. That's correct.	
	225:20 Q. Historical controls not helpful. Do you	
	225:21 see that?	
	225:22 A. I do see that.	
	225:23 Q. And then it says will ask to resection	
	225:24 tissues, consider crystal formation, et cetera; right?	
	226:1 A. I do see that.	
	226:2 Q. And then if we turn to the next page, Page	
	226:3 3. Are you there, sir?	

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	226:4 A. Yes, I am.	
	226:5 Q. And then starting in the second paragraph,	
	226:6 F.J. summarized Monsanto's position forcefully and	
	226:7 well.	
	226:8 Do you see that?	
	226:9 A. I do see that.	
227:3 - 228:2	**Reeves, William 01-23-2019 (00:01:06)**	
	227:3 Q. So below that it says I asked	
	227:4 Dr. Farber if he had heard anything today that would	
	227:5 cause him to desire an additional meeting with Monsanto	
	227:6 scientists. He said no.	
	227:7 Do you see that?	
	227:8 A. I do see that.	
	227:9 Q. I asked if F.J. -- I asked F.J. if he had	
	227:10 detected any areas where we would obviously want to	
	227:11 come in quickly and discuss. He said no.	
	227:12 Do you see that?	
	227:13 A. I do see that.	
	227:14 Q. And if you go down, there is a paragraph	
	227:15 that reads F.J. do you see that?	
	227:16 A. There are a few. Can you go ahead?	
	227:17 Q. Yeah, just go down the paragraph that	
	227:18 begins F.J. asked.	
	227:19 A. Okay.	
	227:20 Q. It says F.J. asked, quote, short of a new	
	227:21 study or finding tumors in the control groups, what can	
	227:22 we do to get this thing off Group C?	
	227:23 Do you see that?	
	227:24 A. Just making sure I understand the full	
	228:1 context of what they're talking about here. All right.	
	228:2 Yes, I do see that.	
228:11 - 228:14	**Reeves, William 01-23-2019 (00:00:11)**	
	228:11 But it appears here that in a meeting with	
	228:12 the EPA, F.J. asked that short of finding a tumor in	
	228:13 the control group, what would get this thing off Group	
	228:14 C; correct.	
228:17 - 229:10	**Reeves, William 01-23-2019 (00:00:36)**	
	228:17 A. He also asked -- so the full statement is	
	228:18 short of a new study, so he's asking either a new study	
	228:19 or if there was something else in the control groups.	

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	228:20 That's what he's saying here.	
	228:21 Q. (By Mr. Wisner) That's right. At this	
	228:22 point, the data from Bio/dynamics and the data that the	
	228:23 EPA reviewed didn't have any tumors in the control	
	228:24 group for the kidneys; right?	
	229:1 A. They did not, and there's a mention up	
	229:2 here of an agreement -- or a suggestion to relook at	
	229:3 tissues.	
	229:4 Q. Yeah, they're going to resection them;	
	229:5 right?	
	229:6 A. Resection, let's take a look.	
	229:7 Q. That's right. But as of -- I mean, he's	
	229:8 straight-up speculating, short of finding a new tumor,	
	229:9 what's going to get it off Group C? That's what he	
	229:10 says.	
229:13 - 229:14	**Reeves, William 01-23-2019 (00:00:02)**	
	229:13 A. That's not all that's there in that	
	229:14 statement.	
241:7 - 242:1	**Reeves, William 01-23-2019 (00:00:50)**	
	241:7 Q. (By Mr. Wisner) So following this study	
	241:8 and following that conversation that Monsanto had	
	241:9 with the EPA that we discussed earlier, Monsanto hired	
	241:10 a guy by the name of Dr. Marvin Kuschner; correct?	
	241:11 A. My understanding is that, yes, we did hire	
	241:12 Dr. Kuschner.	
	241:13 Q. What was the purpose of Monsanto hiring	
	241:14 him?	
	241:15 A. He was a pathologist.	
	241:16 Q. What did you want him to do?	
	241:17 A. A pathologist's job is to look at tissues	
	241:18 from animal studies to understand is there evidence	
	241:19 here of some disease outcome. Specifically Dr.	
	241:20 Kuschner looked at slides from this mouse study to	
	241:21 determine whether or not they were analyzed correctly	
	241:22 to begin with.	
	241:23 Q. And you would agree it would be highly	
	241:24 unscientific for him to have an opinion about what	
	242:1 those slides say before looking at them?	
242:4 - 242:13	**Reeves, William 01-23-2019 (00:00:15)**	
	242:4 A. Is there a document that you would like to	

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	242:5 discuss?	
	242:6 Q. (By Mr. Wisner) I'm asking you an	
	242:7 opinion. It has nothing to do with a document.	
	242:8 A. I'm sorry, I can't guess at the answer to	
	242:9 what you're asking about. If you have a document, I'd	
	242:10 be happy to review it.	
	242:11 MR. WISNER: Okay, I'm going to have him	
	242:12 reask the question, and we'll see if you can answer it;	
	242:13 okay.	
242:14 - 242:15	**Reeves, William 01-23-2019 (00:00:06)**	
	242:14 [The pending question was read.	
	242:15 by the reporter.]	
242:18 - 242:24	**Reeves, William 01-23-2019 (00:00:09)**	
	242:18 A. So what I'm saying is if you have a	
	242:19 document discussing Dr. Kuschner's views, I'd be happy	
	242:20 to look at it.	
	242:21 Q. (By Mr. Wisner) So you can't answer that	
	242:22 question without seeing a document?	
	242:23 A. I would like to see the document you're	
	242:24 referring to.	
243:22 - 244:1	**Reeves, William 01-23-2019 (00:00:13)**	
	243:22 So my question is this, sir. Is it	
	243:23 Monsanto's opinion that it would be appropriate for Dr.	
	243:24 Kuschner to have an opinion about those slides before	
	244:1 seeing them.	
244:5 - 244:8	**Reeves, William 01-23-2019 (00:00:04)**	
	244:5 A. If you have a document describing Dr.	
	244:6 Kuschner's views, I'd be happy to look at it.	
	244:7 Q. (By Mr. Wisner) So you can't answer that	
	244:8 question?	
244:10 - 244:13	**Reeves, William 01-23-2019 (00:00:07)**	
	244:10 A. Again, if you have a document describing	
	244:11 Dr. Kuschner's views, I'd be happy to look at it.	
	244:12 Q. (By Mr. Wisner) Sir, please answer my	
	244:13 question. Can you answer the question or not?	
244:16 - 244:20	**Reeves, William 01-23-2019 (00:00:14)**	
	244:16 A. I'd be happy to discuss any document you	
	244:17 have describing Mr. -- Dr. Kuschner's views.	
	244:18 MR. WISNER: Okay. So I'm just going to	
	244:19 make a formal objection that this witness has not	

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	244:20 responded to my question.	
244:21 - 244:21	**Reeves, William 01-23-2019 (00:00:01)**	
	244:21 Q. (By Mr. Wisner) Hand you Exhibit 30.	
246:3 - 246:12	**Reeves, William 01-23-2019 (00:00:11)**	
	246:3 Q. You recognize this document?	
	246:4 A. Yes, I do.	
	246:5 Q. Seen it before?	
	246:6 A. Yes, I have.	
	246:7 Q. This is an internal Monsanto document	
	246:8 dated April 3rd, 1985; correct?	
	246:9 A. That's correct.	
	246:10 Q. So this is after that meeting with the	
	246:11 EPA?	
	246:12 A. That's correct.	
248:4 - 248:6	**Reeves, William 01-23-2019 (00:00:05)**	
	248:4 Q. And this document was created in the	
	248:5 regular course of Monsanto's business; correct?	
	248:6 A. That's correct.	
248:11 - 249:4	**Reeves, William 01-23-2019 (00:00:41)**	
	248:11 Q. And it reads, starting in the second	
	248:12 paragraph, senior management at EPA is reviewing a	
	248:13 proposal to classify glyphosate as a Class C possible	
	248:14 human carcinogen because of kidney adenomas in male	
	248:15 mice.	
	248:16 Do you see that.	
	248:17 A. I do see that.	
	248:18 Q. Dr. Marvin Kuschner will review kidney	
	248:19 sections and present his evaluation of them to the	
	248:20 EPA -- I'm sorry, to EPA in an effort to persuade the	
	248:21 agency that the observed tumors are not related to	
	248:22 glyphosate.	
	248:23 Do you see that.	
	248:24 A. I do see that.	
	249:1 Q. So as of April 3rd, 1985, Monsanto is	
	249:2 going to be hiring Dr. Kuschner is an effort to	
	249:3 persuade the agency that the tumors are not related to	
	249:4 glyphosate?	
249:7 - 249:15	**Reeves, William 01-23-2019 (00:00:29)**	
	249:7 A. Yeah, I can't really speak to what Dr.	
	249:8 George Levinskas had in mind when he hired Dr.	

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	249:9 Kuschner. His statement here is to T. F. Evans. I	
	249:10 don't know what his conversation was with Dr. Kuschner.	
	249:11 Q. (By Mr. Wisner) I mean, we could	
	249:12 speculate, or we could read what he says; right? He	
	249:13 straight-up says right here in an effort to persuade	
	249:14 the agency that the observed tumors are not related to	
	249:15 glyphosate. That's what it says; right?	
249:18 - 250:1	**Reeves, William 01-23-2019 (00:00:13)**	
	249:18 A. Again, these are words from George	
	249:19 Levinskas to T. F. Evans. Nothing here tells me what	
	249:20 the conversation was with Dr. Kuschner.	
	249:21 Q. (By Mr. Wisner) So that's April 3rd,	
	249:22 1985; right?	
	249:23 A. That's correct.	
	249:24 Q. I'm handing you Exhibit 31.	
	250:1 [Exhibit 31 marked for identification.]	
250:2 - 251:4	**Reeves, William 01-23-2019 (00:01:11)**	
	250:2 Q. Have you seen this document before, sir?	
	250:3 A. Yes, I have.	
	250:4 Q. This is a document dated April 3rd, 1985;	
	250:5 right?	
	250:6 A. That's correct.	
	250:7 Q. Same date as the document we just looked	
	250:8 at?	
	250:9 A. That's correct.	
	250:10 Q. And it's a letter addressed to Dr. Marvin	
	250:11 Kuschner; correct?	
	250:12 A. Just make sure. It is directed -- it is	
	250:13 addressed to Dr. Kuschner.	
	250:14 Q. And it's from someone at the Bio/dynamics	
	250:15 lab?	
	250:16 A. Yeah, this is Knezevich, so this is one of	
	250:17 the authors, I believe, of the mouse study.	
	250:18 Q. And he says he's sending slides to -- God	
	250:19 bless you. He says here that he's sending slides to	
	250:20 Dr. Kuschner at the request of Dr. Long of Monsanto;	
	250:21 right?	
	250:22 A. That's correct.	
	250:23 Q. If you have any questions concerning the	
	250:24 shipment, please do not hesitate to contact me.	

Page/Line	Source	ID
	251:1 Do you see that.	
	251:2 A. Yes. He also acknowledges that he -- it	
	251:3 contains slides of all kidney sections from all animals	
	251:4 in the reference study.	
251:14 - 251:21	**Reeves, William 01-23-2019 (00:00:28)**	
	251:14 Q. So if we compare the dates of the letter	
	251:15 from Exhibit 30 and -- sorry -- the letter, which is	
	251:16 Exhibit 31, with the memo from Monsanto, it appears	
	251:17 that on the very date that Mr. Levinskas is saying that	
	251:18 they're going to have Dr. Marvin Kuschner help them	
	251:19 persuade the agency that the observed tumors are	
	251:20 not related to glyphosate, they're actually sending the	
	251:21 slides to Dr. Kuschner?	
251:24 - 252:7	**Reeves, William 01-23-2019 (00:00:21)**	
	251:24 A. So the date of the letter from George	
	252:1 Levinskas to T. F. Evans is the same as the date of the	
	252:2 letter from Bio/dynamics to Dr. Kuschner.	
	252:3 Q. (By Mr. Wisner) So unless George	
	252:4 "Kevinskas" somehow could see into the future, how	
	252:5 could he possibly know that Dr. Kuschner would help	
	252:6 them persuade the agency that the tumors were not	
	252:7 related to the glyphosate?	
252:10 - 253:21	**Reeves, William 01-23-2019 (00:01:19)**	
	252:10 A. I can't guess as to what was in George	
	252:11 Levinskas's thoughts at that time.	
	252:12 Q. (By Mr. Wisner) Beyond what he wrote?	
	252:13 A. Yeah, all we have is what he wrote. We	
	252:14 don't know that that's the conversation he had with Dr.	
	252:15 Knezevich or Dr. Kuschner.	
	252:16 Q. And if we look right here, at the back of	
	252:17 it is a laboratory receipt. You see that?	
	252:18 A. Yes, I do see that.	
	252:19 Q. And we have a sign -- it's signed by	
	252:20 Marvin Kuschner?	
	252:21 A. Yes.	
	252:22 Q. And it's actually on April 14th, 1985;	
	252:23 right?	
	252:24 A. That's correct.	
	253:1 Q. It's 11 days after the memo by Mr.	
	253:2 Levinskas?	

Page/Line	Source	ID
	253:3 A. Yes, that's correct.	
	253:4 Q. So subsequent to this, Dr. Kuschner	
	253:5 reviewed the kidney tumor slides; right?	
	253:6 A. Yes, that is correct.	
	253:7 Q. And he --	
	253:8 A. He actually looked at slides from all the	
	253:9 kidneys --	
	253:10 Q. That's right.	
	253:11 A. -- just to understand if they were any.	
	253:12 Q. And he discovered a tumor in the control	
	253:13 group; correct?	
	253:14 A. In addition to some others, yes.	
	253:15 Q. And Monsanto then had him prepare a	
	253:16 report, and they submitted that report to the EPA;	
	253:17 correct?	
	253:18 A. Yes. And that report showed the	
	253:19 additional tumor in the control groups as well as some	
	253:20 additional tumors that he found in the treated groups	
	253:21 as well.	
254:20 - 254:20	**Reeves, William 01-23-2019 (00:00:02)**	
	254:20 Q. I'm handing you Exhibit 32 to your	
254:21 - 255:4	**Reeves, William 01-23-2019 (00:00:16)**	
	254:21 deposition, sir. Have you seen this document before?	
	254:22 A. Yes, I have.	
	254:23 Q. This is an internal Monsanto memorandum;	
	254:24 correct?	
	255:1 A. Yes, it is.	
	255:2 Q. Provided -- prepared by or signed by Mr.	
	255:3 Gingerich?	
	255:4 A. Yes, Lyle Gingerich.	
255:7 - 256:6	**Reeves, William 01-23-2019 (00:00:51)**	
	255:7 He was the same person who prepared the	
	255:8 memo regarding the EPA's meeting with Monsanto.	
	255:9 A. That's correct.	
	255:10 Q. This is dated August 20th, 1985. Do you	
	255:11 see that?	
	255:12 A. Yes, I see that.	
	255:13 Q. And the first sentence of this memo reads	
	255:14 if the results of the kidney resectioning do not	
	255:15 resolve the glyphosate issue with an OPP, we will be	

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	255:16 faced with an adverse OPP decision.	
	255:17 Do you see that.	
	255:18 A. I do see that.	
	255:19 Q. And OPP is a division within EPA that	
	255:20 stands for office of pesticide programs; correct?	
	255:21 A. That's correct.	
	255:22 Q. It is likely that OPP will ask the SAP for	
	255:23 concurrence in this determination that there is a	
	255:24 treatment-related effect in the glyphosate mouse study.	
	256:1 Do you see that.	
	256:2 A. I do see that.	
	256:3 Q. And the SAP is a scientific advisory	
	256:4 panel; right?	
	256:5 A. That is my understanding of how they use	
	256:6 that term.	
256:12 - 256:15	**Reeves, William 01-23-2019 (00:00:06)**	
	256:12 The SAP is a group of scientists that	
	256:13 review things for the EPA.	
	256:14 A. That's right, who don't work for the	
	256:15 agency.	
257:21 - 258:1	**Reeves, William 01-23-2019 (00:00:10)**	
	257:21 Q. In any event, Mr. Gingerich is talking	
	257:22 about changing the focus of the SAP to that question;	
	257:23 correct?	
	257:24 A. That is the question that Mr. Gingerich is	
	258:1 asking in this letter.	
258:8 - 259:1	**Reeves, William 01-23-2019 (00:00:46)**	
	258:8 Q. And he goes, if so, I recommend we bring	
	258:9 all 10 of the toxicologists to the SAP meeting. There	
	258:10 is a tendency to, quote, count the votes, end quote, at	
	258:11 SAP meetings. We can make a difference by lining up a	
	258:12 large number of experts on our side.	
	258:13 Do you think -- you see that.	
	258:14 A. I do see that.	
	258:15 Q. And then it goes on, Dr. Moore and Dr.	
	258:16 Farber may be misreading the consensus of their	
	258:17 professional colleagues on this issue. With the	
	258:18 importance of this decision to Monsanto, I don't think	
	258:19 we can leave any doubts in the minds of the EPA or SAP	
	258:20 of what the consensus of the professional toxicologists	

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	258:21 is on this issue.	
	258:22 Do you see that.	
	258:23 A. I do see that.	
	258:24 Q. So this appears to be a strategy to line	
	259:1 up a series of experts to appear at the SAP; correct?	
259:4 - 259:8	**Reeves, William 01-23-2019 (00:00:16)**	
	259:4 A. What he does is he starts -- Lyle	
	259:5 Gingerich has set up this question of are there 10	
	259:6 respected toxicologists who agree with us, and then he	
	259:7 goes on to speculate about what you could do if you had	
	259:8 such a group, and so that's really all he's doing.	
259:22 - 260:2	**Reeves, William 01-23-2019 (00:00:15)**	
	259:22 Monsanto believed at this time that it was	
	259:23 important to identify and contact these potential	
	259:24 experts and make sure that they could testify on behalf	
	260:1 of Monsanto at the EPA and at the SAP to say that	
	260:2 glyphosate's not oncogenic; correct.	
260:5 - 260:7	**Reeves, William 01-23-2019 (00:00:08)**	
	260:5 A. Yeah, I would be guessing as to whether or	
	260:6 not Monsanto at this time shared the opinion of Dr.	
	260:7 Gingerich. He's expressing his own views here.	
263:1 - 263:3	**Reeves, William 01-23-2019 (00:00:06)**	
	263:1 Q. (By Mr. Wisner) Just handed you Exhibit	
	263:2 33. Please let me know when you feel free you can talk	
	263:3 about it.	
263:4 - 264:6	**Reeves, William 01-23-2019 (00:00:53)**	
	263:4 [Exhibit 33 marked for identification.]	
	263:5 A. All right.	
	263:6 Q. You had a chance to review it?	
	263:7 A. Yes, I have.	
	263:8 Q. So this is an internal Monsanto document;	
	263:9 correct?	
	263:10 A. That's correct.	
	263:11 Q. It's dated August 28th, 1985?	
	263:12 A. That's correct.	
	263:13 Q. Six days after the last document we saw?	
	263:14 A. That's correct.	
	263:15 Q. And this was a document that was prepared	
	263:16 in Monsanto's regular and ordinary course of business?	
	263:17 A. That's correct.	

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	263:18 Q. And it appears, if you look at the back,	
	263:19 to be written by a person named Frank Serdy?	
	263:20 A. Yes, that's correct.	
	263:21 Q. Do you recall who Frank Serdy was?	
	263:22 A. My understanding is that Frank Serdy was	
	263:23 in our toxicology group.	
	263:24 Q. And he's writing to Tim Long. Do you see	
	264:1 that?	
	264:2 A. Or act -- you know what, I believe he may	
	264:3 have been in government affairs. So we'd have to -- we	
	264:4 could double-check on that.	
	264:5 Q. Well, he worked at Monsanto; right?	
	264:6 A. He was a Monsanto employee, yes.	
264:9 - 266:11	**Reeves, William 01-23-2019 (00:02:04)**	
	264:9 Q. And he writes the news you relayed to us	
	264:10 on the preliminary results of the resections was very	
	264:11 encouraging. We continue to believe that the result of	
	264:12 all of these effort will be that glyphosate is not	
	264:13 shown to be oncogenic.	
	264:14 Do you see that.	
	264:15 A. That's correct.	
	264:16 Q. And then he goes on, we now feel it is	
	264:17 important to begin to make plans and begin to prepare	
	264:18 our strategy on how we will both submit the results and	
	264:19 respond if the EPA does not accept our results.	
	264:20 Do you see that.	
	264:21 A. I do see that.	
	264:22 Q. We ask your cooperation with the	
	264:23 following, colon. Do you see that, sir?	
	264:24 A. I do see that.	
	265:1 Q. So it appears that he's going to discuss	
	265:2 Monsanto's plans and strategies; right?	
	265:3 A. He says it's to begin to make -- it is	
	265:4 important to begin to make plans, begin to prepare our	
	265:5 strategy.	
	265:6 Q. So he's talking about plans and strategy;	
	265:7 right?	
	265:8 A. Yes, he is talking about plans and	
	265:9 strategies.	
	265:10 Q. Number 1, we continue to feel it is	

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	265:11 important to identify and contact those outside, quote,	
	265:12 experts, unquote, who we feel would testify on our	
	265:13 behalf both to EPA and SAP that, based on the results,	
	265:14 glyphosate is not oncogenic.	
	265:15 Do you see that.	
	265:16 A. Yes, I do.	
	265:17 Q. And then Number 2, we do not have a lot of	
	265:18 faith that, presented with the same evidence, Ted	
	265:19 Farber will want to back off and change his mind.	
	265:20 Did I read that right.	
	265:21 A. That is correct.	
	265:22 Q. Ted Farber, he was the head of the OPP at	
	265:23 the EPA; correct?	
	265:24 A. I'd have to go back and check. He was --	
	266:1 I know he was with the EPA.	
	266:2 Q. He was somebody with the EPA?	
	266:3 A. He was with the EPA.	
	266:4 Q. Hence we feel that it is equally as	
	266:5 important to identify and contact, quote, experts,	
	266:6 unquote, in the area of statistics who would be willing	
	266:7 to testify both to the EPA and SAP that 1-0-1-3 cannot	
	266:8 be considered significant. Also we will need opinions	
	266:9 on the proper way to handle historical controls.	
	266:10 Do you see that.	
	266:11 A. I do see that.	
269:11 - 270:3	**Reeves, William 01-23-2019 (00:00:38)**	
	269:11 Q. (By Mr. Wisner) All right, Doctor, I've	
	269:12 handed you a document, Exhibit 34 to your deposition.	
	269:13 Do you recognize this document?	
	269:14 [Exhibit 34 marked for identification.]	
	269:15 A. Yes, I do.	
	269:16 Q. This is a document. It's been produced by	
	269:17 Monsanto in this litigation, and it's in a memo from	
	269:18 the Environmental Protection Agency. Do you see that?	
	269:19 A. I do see that.	
	269:20 Q. And it's dated December 12th, 1985; right?	
	269:21 A. That's correct.	
	269:22 Q. So this is after those internal memos that	
	269:23 we reviewed from Monsanto; correct?	
	269:24 A. Yes.	

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	270:1 Q. And as you can see, it is from William 270:2 Dykstra, a PhD at the EPA? 270:3 A. That's correct.	
270:10 - 274:5	**Reeves, William 01-23-2019 (00:03:40)** 270:10 Q. And this was a document that Monsanto had 270:11 obviously reviewed and considered as part of its 270:12 understanding of the regulatory history of Roundup? 270:13 A. That's correct. 270:14 Q. Background. Glyphosate was considered 270:15 oncogenic in male mice, causing renal tubule adenomas, 270:16 a rare tumor, in a dose-related manner. The incidence 270:17 of this tumor was zero, zero, one, and three in the 270:18 control, low-, mid-, and high-dose groups respectively. 270:19 Do you see that? 270:20 A. Yes, I do. 270:21 Q. And this is what this is referring to -- 270:22 is typically in these sort of animal carcinogenicity 270:23 studies, there are four separate groups; right? 270:24 A. Yes, that's typical. 271:1 Q. The first group is the control group; 271:2 right? 271:3 A. That's right. 271:4 Q. They don't get exposed to the chemical? 271:5 A. That's right. 271:6 Q. And then you have a low-dose, a mid-dose, 271:7 and a high-dose group; right? 271:8 A. That's correct. 271:9 Q. And one of the things you're looking at 271:10 is, because it's in a laboratory, everything is highly 271:11 controlled -- you use that control to sort of compare 271:12 the rodents that are exposed to the chemical to the 271:13 ones that are not; right? 271:14 A. That's correct. 271:15 Q. And this reference to zero, zero, one, 271:16 three, that's referring to the incidence of the kidney 271:17 tumors that we were discussing in the original review? 271:18 A. That's correct. 271:19 Q. And it goes on. Additional evaluation of 271:20 all original renal sections identified a small renal 271:21 tubular in one control male, Animal Number 1028, which	

271:22 was not diagnosed as such in the original pathology
271:23 report.
271:24 Do you see that?
272:1 A. Yes, I do.
272:2 Q. Subsequently -- sorry -- so it's talking
272:3 about the identification of this new tumor in -- sorry,
272:4 I shouldn't say new tumor. I'm not trying to
272:5 suggest -- so what he's saying here is they've
272:6 identified a potential tumor in the control group;
272:7 correct?
272:8 A. Yes, that they have -- essentially when
272:9 they went back, they looked at the control animals,
272:10 looked at their kidneys, they found an additional tumor
272:11 there that they had not noticed previously.
272:12 Q. Goes on, subsequently, toxicology
272:13 branch recommended that additional renal sections be
272:14 cut and evaluated from all control in
272:15 glyphosate-treated male mice. See that?
272:16 A. Yes, I do.
272:17 Q. And so that's your understanding? The EPA
272:18 went back and recut all of the tissues in the kidneys
272:19 for the male mice.
272:20 A. They made that actually a requirement for
272:21 Monsanto. So we had the laboratory -- let's resection
272:22 these tissues and then have a pathology working group
272:23 take a look at them.
272:24 Q. This review contains the evaluation of the
273:1 submitted results of the additional sectioning in
273:2 pathological data. See that?
273:3 A. I do see that.
273:4 Q. On the second page is the conclusion. Do
273:5 you see that?
273:6 A. Yes, I do see that.
273:7 Q. The results of the additional pathological
273:8 evaluation on recut kidney sections in male mice
273:9 demonstrated no additional tumors were present. Do you
273:10 see that?
273:11 A. I do see that.
273:12 Q. And then if you go down, you see the
273:13 actual review section of his document. You see that?

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	273:14 A. I do see that.	
	273:15 Q. And again, it reflects zero in the	
	273:16 control, zero in the low dose, one in the mid dose, and	
	273:17 three in the high dose; correct?	
	273:18 A. I do see that.	
	273:19 Q. And then it goes, the additional tumor in	
	273:20 the control group, which had been diagnosed from the	
	273:21 reevaluation of the original slides, was not present in	
	273:22 the recut kidney sections. Do you see that?	
	273:23 A. I do see that statement.	
	273:24 Q. So they went back and they recut it and	
	274:1 they didn't see this tumor in the control group?	
	274:2 A. That's right. So this is prior to the	
	274:3 path -- the -- yeah, the independent pathology working	
	274:4 group, who looked at the slides without any information	
	274:5 about which one was which.	
274:6 - 274:8	**Reeves, William 01-23-2019 (00:00:05)**	
	274:6 Q. So as Monsanto predicted, there was in	
	274:7 fact a scientific advisory panel convened; correct?	
	274:8 A. Yes. And this was following the discovery	
274:9 - 274:10	**Reeves, William 01-23-2019 (00:00:06)**	
	274:9 by the pathology working group, and their conclusion	
	274:10 that indeed these tumors were there.	
275:4 - 275:19	**Reeves, William 01-23-2019 (00:00:40)**	
	275:4 Q. And just for the jury's understanding, a	
	275:5 scientific advisory panel -- what happened there was	
	275:6 various people testified about this issue related to	
	275:7 the mouse study?	
	275:8 A. So I can speak to generally at a science	
	275:9 advisory panel, EPA brings independent scientists in,	
	275:10 they want them to essentially conduct a peer review of	
	275:11 the agency's work and then provide feedback on what	
	275:12 needs improvement, clarification, anything like that.	
	275:13 Q. Exactly. And at this meeting, Monsanto	
	275:14 sends people to represent its interests; right?	
	275:15 A. Yes. Anyone they send -- anyone may go	
	275:16 and comment publicly.	
	275:17 Q. Exactly. And then the EPA sends	
	275:18 scientists as well to testify?	
	275:19 A. That's correct.	

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283:6 - 283:16	**Reeves, William 01-23-2019 (00:00:18)**	
	283:6 Q. This is a guidance document for	
	283:7 glyphosate; right?	
	283:8 A. Yes.	
	283:9 Q. From the EPA?	
	283:10 A. That is correct.	
	283:11 Q. Dated June 1986; right?	
	283:12 A. That's correct.	
	283:13 Q. Just about five months after the SAP	
	283:14 meeting?	
	283:15 A. Let me just make sure of the date. About	
	283:16 four months.	
285:4 - 285:4	**Reeves, William 01-23-2019 (00:00:01)**	
	285:4 Q. Turn to Page 6. You there?	
285:5 - 288:4	**Reeves, William 01-23-2019 (00:02:44)**	
	285:5 A. Yes, I am.	
	285:6 Q. And this is describing the mouse study;	
	285:7 right?	
	285:8 A. At the very top?	
	285:9 Q. Yeah. The first paragraph.	
	285:10 A. Yes.	
	285:11 Q. It goes on. It says the chronic	
	285:12 feeding/oncogenicity study in mice tested dosages of	
	285:13 1,000, 5,000, and 30,000 parts per million. Glyphosate	
	285:14 produced an equivocal oncogenic response in the mouse,	
	285:15 causing a slight increase in the incidence of renal	
	285:16 tubular adenomas -- benign tumor in the kidney -- in	
	285:17 males at the highest dose treated of 30,000 PPM. See	
	285:18 that?	
	285:19 A. Yes, I do.	
	285:20 Q. Toxicology branch ad hoc oncogenicity	
	285:21 committee tentatively classified glyphosate as a Class	
	285:22 C oncogen. See that?	
	285:23 A. I do see that.	
	285:24 Q. The studies were reexamined by a	
	286:1 consulting pathologist and data were submitted	
	286:2 indicating that an additional kidney tumor had been	
	286:3 found in the control males. No renal tumors were found	
	286:4 in controls in the original examination. You see that?	
	286:5 A. Yes, I do.	

286:6 Q. And that consulting pathologist was Dr.
286:7 Kuschner; right?
286:8 A. Yes.
286:9 Q. The agency then requested that additional
286:10 kidney sections from the mouse study be prepared and
286:11 examined. You agree with that; right?
286:12 A. I do see that, yes.
286:13 Q. The resultant microslides were examined by
286:14 a number of pathologists. Those examinations revealed
286:15 no additional tumors, but confirmed the presence of the
286:16 tumors identified in the original study report.
286:17 Do you see that?
286:18 A. I do see that.
286:19 Q. The apparent lesion in the control kidney
286:20 was not present in any of the additional sections.
286:21 After examination of the slides, the agency concluded
286:22 that this lesion did not represent a pathologically
286:23 significant change.
286:24 Do you see that?
287:1 A. I do see that.
287:2 Q. So that was the agency's conclusion about
287:3 this tumor in the control slide?
287:4 A. Yeah, this is their account of the
287:5 historical information regarding that.
287:6 Q. So then it goes on in the bottom paragraph
287:7 specifically discussing the SAP. Do you see that?
287:8 A. I do see that.
287:9 Q. And if you turn to the next page, this is
287:10 what I wanted to get at. Let me know when you're
287:11 ready.
287:12 A. Yes, I am.
287:13 Q. It reads, after consideration of the
287:14 expert opinion of the SAP and reconsideration of all
287:15 relevant data for this compound, in particular the
287:16 statistical assessment provided by the SAP, the agency
287:17 agrees that available data are not sufficient to
287:18 adequately address the question of whether the apparent
287:19 effects noted in the mouse study are biologically
287:20 relevant. Therefore, in order to fully address this
287:21 question, the agency is requiring that this study be

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	287:22 repeated with a larger number of animals in each test 287:23 group so that the statistical power of the study is 287:24 increased. 288:1 Do you see that? 288:2 A. I do see that. 288:3 Q. So the agency did in fact require an 288:4 additional study?	
288:7 - 288:8	**Reeves, William 01-23-2019 (00:00:02)** 288:7 A. So what they're saying is the agency is 288:8 requiring.	
288:10 - 288:17	**Reeves, William 01-23-2019 (00:00:20)** 288:10 A. Well, it would come in the forms -- so 288:11 earlier on this document discusses data call-in, so 288:12 that's the mechanism by which they would do it. This 288:13 could be -- this document would be recounting perhaps 288:14 conversations that the agency has had, but it's the 288:15 official data call-in authority that the agency uses to 288:16 say submit a study. So that would be a separate 288:17 document.	
289:13 - 289:14	**Reeves, William 01-23-2019 (00:00:03)** 289:13 Q. I'm handing you a document, Exhibit 37 to 289:14 your deposition.	
289:20 - 291:12	**Reeves, William 01-23-2019 (00:01:23)** 289:20 Q. So you've seen this document before? 289:21 A. Yes, I have. 289:22 Q. This is an internal Monsanto memo; 289:23 correct? 289:24 A. That is correct. 290:1 Q. And it's dated August 28th, 1986? 290:2 A. That's correct. 290:3 Q. Month or so after the registration 290:4 document? 290:5 A. About two months. 290:6 Q. And it -- I mean, it says subject, 290:7 glyphosate registration standard. Do you see that? 290:8 A. I do see that. 290:9 Q. And this was written by Timothy Long. Do 290:10 you see that? 290:11 A. Yes, I see T. J. Long as he signed it -- 290:12 Timothy J., yes.	

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	290:13 Q. And this was a document made in the	
	290:14 regular course of Monsanto's business; right?	
	290:15 A. That's correct.	
	290:16 Q. He writes, after reviewing the referenced	
	290:17 document, I would like to make the following	
	290:18 suggestions for our response to the requirements for	
	290:19 additional testing. Do you see that?	
	290:20 A. I do see that.	
	290:21 Q. And the first section is rat and mouse	
	290:22 oncogenicity studies. See that?	
	290:23 A. Yes, I do.	
	290:24 Q. And it says several approaches could be	
	291:1 taken; right?	
	291:2 A. That's correct.	
	291:3 Q. First approach is, present arguments for	
	291:4 not repeating either study based on the principles	
	291:5 discussed in the agency's MTD position paper,	
	291:6 attachment one. See that?	
	291:7 A. Yes, I do.	
	291:8 Q. Option 2, agree to repeat the rat study	
	291:9 and vehemently argue the lack of justification for a	
	291:10 repeat mouse study. See that?	
	291:11 A. I do see that.	
	291:12 Q. And then Option 3 -- it's on the third	
291:13 - 291:17	**Reeves, William 01-23-2019 (00:00:08)**	
	291:13 page. You see that?	
	291:14 A. Yes, I do.	
	291:15 Q. Repeat only the mouse study and only to a	
	291:16 maximum dosage level of 7,000 PPM. You see that?	
	291:17 A. I do see that.	
292:6 - 293:4	**Reeves, William 01-23-2019 (00:01:02)**	
	292:6 7,000 PPM is less than a	
	292:7 third of what the Knezevich and Hogan study had;	
	292:8 correct?	
	292:9 A. That is correct, but I think it's	
	292:10 important to have that context of they're saying this	
	292:11 is already wildly above any human exposure.	
	292:12 Q. Number 4, as a final fallback position if	
	292:13 necessary, we could agree to repeat the oncogenic rat	
	292:14 study as discussed in Point 2 above and agree to a	

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	292:15 partial mouse oncogenicity repeat. Do you see that?	
	292:16 A. I do see that.	
	292:17 Q. Last sentence, I feel this should be the	
	292:18 last and least desirable position that we should take	
	292:19 on the issue of repeat studies. Do you see that?	
	292:20 A. I do see that. And he provides the	
	292:21 context in the middle.	
	292:22 Q. So he's discussing all these potential	
	292:23 options that Monsanto can take regarding	
	292:24 the requirement that Monsanto do another rat and mouse	
	293:1 study; right?	
	293:2 A. They're providing a series of options we	
	293:3 have to provide additional data to make sure EPA has an	
	293:4 accurate assessment of this molecule.	
742:15 - 743:9	**Reeves, William 01-24-2019 (00:00:35)**	
	742:15 Q. Okay. Let me -- let's -- we'll come	
	742:16 back to some other issues about Roundup and its	
	742:17 safety in a little while but I want to get into a	
	742:18 little of your personal background.	
	742:19 A. Okay.	
	742:20 Q. Let's start with your education.	
	742:21 Where did you go to college?	
	742:22 A. At the University of Missouri.	
	742:23 Q. What was your degree in at the	
	742:24 University of Missouri?	
	742:25 A. It was a Bachelor's of Science in	
	743:1 biology.	
	743:2 Q. Did you get a -- a subsequent degree?	
	743:3 A. Yes, I did.	
	743:4 Q. What was the subsequent degree?	
	743:5 A. That was a PhD in toxicology from	
	743:6 Texas A&M University.	
	743:7 Q. Did you get the -- your PhD in	
	743:8 toxicology in 2000?	
	743:9 A. I did.	
744:17 - 750:24	**Reeves, William 01-24-2019 (00:06:35)**	
	744:17 Q. (BY MR. BRENZA) What was the next	
	744:18 job you had?	
	744:19 A. Following that, I worked for the	
	744:20 University of Missouri, and that was as an	

744:21 environmental health technician.
744:22 Q. And was that in -- from 1995 to 1996?
744:23 A. That's correct.
744:24 Q. What did you do as an environmental
744:25 health technician at the University of Missouri?
745:1 A. I -- I had two parts to that role.
745:2 One was doing fire and safety inspections in
745:3 laboratories, and then the other one was hazardous
745:4 materials management. And so that was any kind of
745:5 hazardous material that laboratories or farms would
745:6 have and we would help them make sure it was being
745:7 handled appropriately.
745:8 Q. What was the next job you had?
745:9 A. Following that I was a research -- a
745:10 graduate research associate at Texas A&M University
745:11 as part of going to graduate school there.
745:12 Q. So that was from 1996 to about 2000?
745:13 A. That's correct.
745:14 Q. What did you do as a graduate
745:15 research assistant at Texas A&M University?
745:16 A. So mainly what you're doing in those
745:17 roles is conducting research, you know, that earns
745:18 you your PhD, and so I had two aspects of my
745:19 research. We were trying to understand could there
745:20 be refinements to risk assessments for -- for
745:21 contaminated sites, specifically sites contaminated
745:22 with petroleum products. Would there be any way to
745:23 understand which sites needed clean up the most.
745:24 You know, right now, and at that
745:25 time, it was analytical data. Say you have this
746:1 many contaminants of this type, the one with the
746:2 most has the most priority.
746:3 We were trying to understand is there
746:4 a better way to score that, you know, are these
746:5 materials binding to soil. You know, these are
746:6 present as a mixture. Is there something about
746:7 those mixtures that we could understand that would
746:8 help say this one is more important than that one.
746:9 Q. So you mentioned mixtures. Was part
746:10 of your job there to evaluate the behavior of

746:11 mixtures in a toxicological way?
746:12 A. Yes, it was.
746:13 Q. Did you reach conclusions about the
746:14 hydrocarbon mixtures that you were working with,
746:15 about how they behaved as mixtures?
746:16 A. Yes, we did. So the conclusion was
746:17 that the -- what we were doing was separating them
746:18 out, you know, so there were components of these
746:19 mixtures, certain chemicals that are alike, they're
746:20 part of the same class.
746:21 We would separate those and then do
746:22 studies with them to understand, do the activities
746:23 of the individual mixture components predict
746:24 overall mixture toxicity. And our conclusion was
746:25 yes, they did.
747:1 Q. Did you reach conclusions generally
747:2 about the toxicological properties of mixed
747:3 compounds as a result of your work?
747:4 A. Yes, my -- my hope was that I'd be
747:5 able to find that there was some sort of
747:6 interaction that we didn't know about that needed
747:7 to be accounted for, but I did not. And one of the
747:8 things I learned as part of that is such
747:9 interactions are rare.
747:10 Q. And when you say "such interactions
747:11 are rare," what does that tell you about how
747:12 mixtures or formulations behave relative to their
747:13 components?
747:14 A. So based on our understanding of that
747:15 and other information from the scientific
747:16 literature, it -- it tells us that, you know,
747:17 generally speaking, when I have two substances or
747:18 more substances where I know about how they behave
747:19 in the body, that is going to be predictive of how
747:20 the mixture itself behaves overall in the body.
747:21 Q. What was the next position you worked
747:22 in?
747:23 A. After that I was a postdoctoral
747:24 researcher at the University of California at
747:25 Davis.

748:1 Q. And what did you do there?
748:2 A. At -- at UC Davis I was a -- I was
748:3 working with the entomology department and the
748:4 toxicology department. The idea was we wanted to
748:5 be able to determine the amino acid sequence of
748:6 very small amounts of protein.
748:7 We have -- we had the, at that time,
748:8 we had the ability to isolate small proteins, you
748:9 know, ones that are being used in signaling, that
748:10 are only present for a short period of time in the
748:11 cell, and the idea was if you could isolate those
748:12 and then sequence them, you could understand more
748:13 about how they functioned, how they were encoded in
748:14 DNA.
748:15 Q. What was the -- so after you finished
748:16 your postdoc research efforts, what was the next
748:17 job you had?
748:18 A. Then I -- after that I worked for the
748:19 California EPA, and this was for the State Water
748:20 Resources Control Board. I was an environmental
748:21 scientist but my focus was on fresh water
748:22 standards.
748:23 Q. What -- what office of the California
748:24 EPA did you work at?
748:25 A. So that was the State Water Resources
749:1 Control Board. This is the over -- this is the
749:2 office within California EPA that's responsible for
749:3 protecting water quality across the state.
749:4 Q. And was there a physical location
749:5 where you worked?
749:6 A. Yes. That was in Sacramento.
749:7 Downtown Sacramento.
749:8 Q. Did you live near -- near where you
749:9 were working?
749:10 A. I did. I lived in Woodland -- well,
749:11 at first I lived in Davis. And then we moved -- my
749:12 wife and I moved to Woodland in 2002.
749:13 Q. And are Woodland and Davis, they --
749:14 they are both close to San Francisco, west of San
749:15 Francisco? Or east? East of San Francisco?

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749:16 A. East, yeah, east of San Francisco.
749:17 Q. Yeah. West is in the ocean.
749:18 A. It's a little tough out there. And
749:19 they are --
749:20 MR. WISNER: It's in the bay.
749:21 A. They -- yeah, they are. They're
749:22 about two miles east of San Francisco. Or I'm
749:23 sorry, two hours.
749:24 Q. (BY MR. BRENZA) So you were working
749:25 in, at the California EPA on fresh water standards.
750:1 How -- how did that -- what exactly did you do with
750:2 respect to protecting the clean water of
750:3 California?
750:4 A. We had two functions in our group and
750:5 -- and I worked on both. One was developing new
750:6 water quality standards, you know, whether there --
750:7 there was one that the state was proposing to come
750:8 up with itself. So this would be, you know, a -- a
750:9 limit on some pollutant in water when I -- I worked
750:10 on a heavy metal called selenium, was one of them.
750:11 The other part of it -- so that was, let's -- you
750:12 know, we were adopting a new water quality standard
750:13 or -- or number for a contaminant.
750:14 The other half of it was reviewing
750:15 actions by the Regional Water Quality Control
750:16 Boards. They are the part of the -- of Cal EPA
750:17 that issues permits, say to a -- a wastewater
750:18 discharge. Like a sewage treatment plant. And if
750:19 the entities they had issued the permit to
750:20 disagreed with the permit, they could appeal to the
750:21 state and then I would provide a technical review
750:22 of the complaint and the response to it.
750:23 Q. About how long did you work
750:24 protecting California's clean water?

751:3 - 751:4 **Reeves, William 01-24-2019 (00:00:01)**

751:3 A. It was about two years and eight
751:4 months.

764:11 - 766:17 **Reeves, William 01-24-2019 (00:02:31)**

764:11 Q. What was the next position you held
764:12 at Monsanto?

764:13 A. Starting in November of 2018, I
764:14 joined our agricultural affairs and sustainability
764:15 team and in that -- in that organization I am the
764:16 global health and safety issues management lead.
764:17 And so it's -- it's similar to the work I was doing
764:18 before but it has a -- responsibilities across our
764:19 portfolio of products rather than just crop
764:20 protection alone.
764:21 Q. Okay. So let's -- let's discuss a
764:22 little bit about glyphosate itself.
764:23 A. Sure.
764:24 Q. Is glyphosate an herbicide?
764:25 A. Yes, it is.
765:1 Q. What is an herbicide?
765:2 A. Those are -- herbicides are molecules
765:3 that you can use or a chemical you can use to kill
765:4 a weed.
765:5 Q. What's the a -- what's the history in
765:6 -- of the -- of realizing the weed control
765:7 potential of glyphosate?
765:8 A. This is a molecule that Monsanto
765:9 initially discovered its weed control properties.
765:10 Other companies had developed ways to synthesize
765:11 glyphosate over the years as part of their own work
765:12 but they did not realize it could work as a
765:13 herbicide.
765:14 Monsanto, as part of research into
765:15 herbicidal compounds, was synthesizing molecules,
765:16 looking at different ideas we had internally about
765:17 would -- trying to answer the question of would
765:18 this chemical structure work as a herbicide. And
765:19 after a few rounds of work, glyphosate was
765:20 identified and it was tested under greenhouse
765:21 conditions and found to actually be effective.
765:22 Q. Who discovered the herbicidal
765:23 properties of glyphosate?
765:24 A. It was Dr. John Franz.
765:25 Q. When did he make that discovery?
766:1 A. That was in -- he was doing the
766:2 synthesis work and I believe the -- the discovery

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	766:3 of its -- of its ability to act as a herbicide was 766:4 1970. 766:5 Q. Was there anything unusual about the 766:6 herbicidal properties of glyphosate? 766:7 A. Yes. Glyphosate was act -- 766:8 glyphosate acts on a broad spectrum of weeds, so 766:9 that means it kills grasses as well as broadleafs, 766:10 which are the plants like clover. It also acts 766:11 systemically. So when it's absorbed by the plant, 766:12 it goes down to the root and it can kill a weed at 766:13 the root so it won't grow back. 766:14 And this -- this combination is -- 766:15 I'm not sure there was another product on the 766:16 market like that at the time, and I don't believe 766:17 there is now.	
766:23 - 767:15	**Reeves, William 01-24-2019 (00:00:43)** 766:23 Let me -- well, let me ask you this. What happens 766:24 to glyphosate once it's sprayed and does its job 766:25 killing weeds? 767:1 A. There -- there are two things that 767:2 can happen to it. One, it'll be degraded by 767:3 bacteria or fungus in the soil. The other thing is 767:4 that it -- it can bind to soil, so it will actually 767:5 just physically, you know, form a very strong 767:6 attraction to a soil particle or even just bond 767:7 with it. 767:8 Q. And why is that good? 767:9 A. And that -- that means it's not going 767:10 to be, you know, running off or leaching into 767:11 groundwater. And then the fact that it -- that it 767:12 actually is broken down by soil bacteria or fungus 767:13 means it's not going to accumulate in the food 767:14 chain. You're not going to see it, you know, over 767:15 time building up in people or the environment.	
769:2 - 769:10	**Reeves, William 01-24-2019 (00:00:22)** 769:2 Q. Was the discovery of glyphosate and 769:3 the safety testing that accompanied it, did that 769:4 result in glyphosate being registered for use in -- 769:5 in various countries? 769:6 A. That's correct.	

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	769:7 Q. Was it registered for use in the 769:8 United States? 769:9 A. Yes, in the United States in 1975, 769:10 with the first sales occurring in 1976.	
776:7 - 776:12	**Reeves, William 01-24-2019 (00:00:11)** 776:7 Q. (BY MR. BRENZA) So, Doctor, I want 776:8 to pick up where we left off. We were going to 776:9 talk about the benefits of glyphosate and Roundup 776:10 for landscaping use at home. 776:11 A. Yes. 776:12 Q. Okay.	REEVES_COMBINED_03.76
776:15 - 777:6	**Reeves, William 01-24-2019 (00:00:37)** 776:15 Q. (BY MR. BRENZA) What's the benefits 776:16 of Roundup for home use? 776:17 A. In home settings one of the things it 776:18 can do, glyphosate-based herbicides are effective 776:19 at controlling poison ivy. And so when you think 776:20 about, you know, having a poison ivy plant in your 776:21 yard, I have actually had this situation quite a 776:22 lot, you know, or poison oak is another one, you 776:23 just don't want to come into contact with these 776:24 plants, you know, you don't want to get -- grab 776:25 them with your hands or -- or try to get them out, 777:1 you know, in a way that's going to cause you to 777:2 come into contact with them. 777:3 So the way I use glyphosate-based 777:4 herbicides and other people do is controlling 777:5 poison ivy in a way that keeps you from having to 777:6 come into contact with it.	REEVES_COMBINED_03.77
784:20 - 786:24	**Reeves, William 01-24-2019 (00:02:32)** 784:20 Q. All right. So if -- do you remember 784:21 that you were asked a number of questions about the 784:22 mouse and rat studies that were originally -- well, 784:23 not originally used but were eventually used by 784:24 Monsanto to register glyphosate with the EPA? 784:25 A. I do. 785:1 Q. And there was a 1983 mouse study by 785:2 Knezevich and Hogan? 785:3 A. I do remember that. 785:4 Q. And as a result of that mouse study,	REEVES_COMBINED_03.78

785:5 did the -- did the EPA reach a conclusion about --
785:6 a preliminary conclusion about the carcinogenicity
785:7 of glyphosate?
785:8 A. They -- they did have some
785:9 preliminary conclusions. They were not made final
785:10 by the agency.
785:11 Q. Do you remember that there was a
785:12 document you were shown where Monsanto had hired
785:13 somebody called Dr. -- named Dr. Kushner to review
785:14 the mouse biopsies?
785:15 A. I do recall that.
785:16 Q. Did Monsanto tell Dr. Kushner what he
785:17 should find with respect to his review of those
785:18 mouse biopsies?
785:19 A. No, Monsanto did not do that.
785:20 Q. How do you know that?
785:21 A. The -- so Monsanto, when we work with
785:22 external experts, you know, the -- you know, when
785:23 you're talking about the science experts, the idea
785:24 is that you want to find someone who knows their
785:25 field, who understands the material that you're
786:1 asking them to investigate and advise us on, but we
786:2 also make sure, you know, we're not -- we're not
786:3 going out there and telling them, you know -- we
786:4 don't engage an expert and say this is what we want
786:5 you to find, please do the following. It's please
786:6 look into this and tell us what you find.
786:7 Q. Now, why -- it may be obvious but why
786:8 wouldn't you tell an expert what to find?
786:9 A. So if -- if you're doing that, you
786:10 know, they are not really acting as an expert, but
786:11 more importantly, when you're doing something as
786:12 serious as dealing with the regulatory agency, you
786:13 know, putting information in front of them for them
786:14 to make a conclusion, if you give them, you know,
786:15 information that's false, that's not going to --
786:16 they're going to spend their -- they're going to
786:17 waste their time reviewing that and then they're
786:18 going to come back to you and say not only did you
786:19 waste our time, you gave us false information.

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	786:20 This isn't -- that's not a productive 786:21 interaction with the regulatory agency. You want 786:22 to make sure you're giving them as much factual 786:23 information as possible so that you're able to 786:24 obtain the registration or the approval.	
787:14 - 789:1	**Reeves, William 01-24-2019 (00:01:43)** 787:14 Q. Is Exhibit 95 the conclusion of the 787:15 EPA about the proper classification of glyphosate 787:16 based on mouse and rat studies? 787:17 A. Yes. Following the -- the two rat 787:18 studies and the mouse study we discussed 787:19 previously. 787:20 Q. So let's -- let's talk about those 787:21 studies for a moment. The -- the first rat study 787:22 was found to have inadequate dosing of rats; right? 787:23 A. That's correct. The -- the agency at 787:24 the time expressed concern that the doses were too 787:25 low to really inform full assessment, and since 788:1 that time other regulatory agencies around the 788:2 world have -- have concluded the same thing about 788:3 it. That they're -- we have better data to rely on 788:4 than this. 788:5 Q. Did Monsanto commission a replacement 788:6 or repeat rat study to dose the rats with more 788:7 glyphosate? 788:8 A. Yes, we did. 788:9 Q. And at the same time they also 788:10 performed the mouse study that we heard so much 788:11 about yesterday? 788:12 A. Yes, the mouse study was underway 788:13 first, and the rat study began later on. So the 788:14 mouse data were available first. 788:15 Q. Now, when the mouse study -- the 788:16 mouse study received a number of different reviews 788:17 at the EPA; right? 788:18 A. That's correct. 788:19 Q. And there was some disagreement along 788:20 the way about what the mouse study -- that first 788:21 mouse study really showed? 788:22 A. That's correct.	[redacted]

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	788:23 Q. But in the end, the -- a number of 788:24 experts reviewed those, reviewed that mouse study 788:25 and concluded that it -- it provided evidence that 789:1 glyphosate was not a carcinogenic?	
789:7 - 789:9	**Reeves, William 01-24-2019 (00:00:04)** 789:7 Q. (BY MR. BRENZA) What did the -- what 789:8 did the EPA ultimately conclude about that first 789:9 mouse study?	
789:12 - 792:2	**Reeves, William 01-24-2019 (00:02:55)** 789:12 A. So based on -- on the documents that 789:13 I've seen, they concluded that they wanted, you 789:14 know, at -- as we discussed yesterday, they wanted 789:15 a repeat of the mouse study. Through conversations 789:16 with them we said we're having -- we have a rat 789:17 study coming. Let's see what that study shows. 789:18 And then at that time decide do we need to do 789:19 another mouse study. 789:20 Q. (BY MR. BRENZA) Okay. And is that 789:21 recorded on page 4 of Exhibit 95? Do you -- well, 789:22 let me -- let me ask it this way. Do you see the 789:23 second full paragraph on page 4 of Exhibit 95 -- 789:24 A. Yes, I do. 789:25 Q. -- beginning with "HED"? 790:1 A. I do see that. 790:2 Q. It says, "HED deferred a decision on 790:3 the repeat of an additional mouse oncogenicity 790:4 study until the 1990 rat feeding study had been 790:5 evaluated by the Peer Review Committee." 790:6 A. That is correct. That's what it 790:7 says. 790:8 Q. Did -- did the EP -- so we heard the 790:9 questions yesterday about the EPA wanting a mouse 790:10 and a rat study and -- and Mr. Wisner suggested 790:11 that Monsanto refused to do one of the studies the 790:12 EPA wanted. 790:13 Is that a fair understanding of what 790:14 happened here? 790:15 A. No. What -- what the EPA is 790:16 describing here is that the health effects division 790:17 is HED. They deferred their decision about whether	

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790:18 we needed another repeat mouse study until they
790:19 could see the results of this repeated rat study.
790:20 Q. So are you familiar with the results
790:21 of the repeated rat study?
790:22 A. Yes, I am.
790:23 Q. And what did the repeated rat study
790:24 show about the safety of glyphosate?
790:25 A. EPA concluded that -- that this
791:1 repeated rat study, along with the existing mouse
791:2 study, supported a conclusion that glyphosate could
791:3 be classified in group E.
791:4 Q. What's -- and Group -- what is Group
791:5 E? Well, let me -- let me just direct your
791:6 attention to the -- the final page of Exhibit 95
791:7 says Classification.
791:8 Do you see that?
791:9 A. I do see that.
791:10 Q. And there it says, "Considering
791:11 criteria confined EPA guidelines for classifying a
791:12 carcinogen, the committee concluded that glyphosate
791:13 should be classified as a Group E (evidence of
791:14 non-carcinogenicity for humans), based on lack of
791:15 convincing carcinogenicity evidence in adequate
791:16 studies in two animal species."
791:17 You see that?
791:18 A. I do see that. That's what they
791:19 concluded here.
791:20 Q. And so a Group E means what?
791:21 A. Group E, their description is
791:22 "evidence of non-carcinogenicity for humans," that
791:23 -- and that was their -- their definition here in
791:24 1991 following that review.
791:25 Q. What were the two species in which
792:1 non-carcinogenicity had been proven by studies?
792:2 A. Rat --

792:5 - 793:1 **Reeves, William 01-24-2019 (00:00:58)**

792:5 A. In rats and mice. Those were the two
792:6 species.
792:7 Q. (BY MR. BRENZA) Are you aware of any
792:8 rat or mice studies the EPA wanted Monsanto to

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792:9 perform that it didn't perform?
792:10 A. No, I am not.
792:11 Q. Was that even a feasible thing to
792:12 have happen?
792:13 A. To conduct a rat or a mouse study?
792:14 Q. To refuse to conduct a rat or mouse
792:15 study that the EPA asks you to perform?
792:16 A. Once -- once they issue -- we talked
792:17 yesterday about a data call in. And so that's the
792:18 way -- that's how EPA can order a registrant to
792:19 turn in data.
792:20 You can -- you can have discussions
792:21 about EPA, with EPA about data requirements and
792:22 whether things are needed, but, you know, if -- if
792:23 they decide you're going to do something, you don't
792:24 have a -- you don't have a choice in that. In
792:25 order to maintain your product registration, you
793:1 have to give them the data they're asking for.

[redacted]

Total Time = 00:56:19

Documents Shown
EXHIBIT 100
EXHIBIT 505
EXHIBIT 506
EXHIBIT 508
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EXHIBIT 514
EXHIBIT 515
MONSANTO 95