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Case Number: AC 17-0694

DDV 06-761

Moos v. BNSF Railway Co.

Melvin L. Burda

January 25, 2007

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<p style="text-align: right;">Page 45</p> <p>1 BY MR. LEWIS: 2 Q Do you know what Zonolite is, sir? 3 A Yes, I do. 4 Q What is it? 5 A Zonolite is a mineral which is identified 6 as an ore that is mined from the Zonolite Mountain in 7 Montana. 8 Q Okay. Is Zonolite contaminated with 9 amphibole asbestos? 10 A Contaminated? 11 I would say that the ore contains 12 amphibole asbestos. It's a natural occurring material 13 in that form. 14 Q And the railroad has known that since the 15 1950's, right? 16 A I don't believe so. 17 Q Have you studied -- have you looked at 18 the study commissioned by the Great Northern Railroad 19 in the 1950's that demonstrated that the Zonolite on 20 Zonolite Mountain contained amphibole asbestos fibers? 21 A I'm familiar with the study. 22 Q Okay. And the railroad actually financed 23 it in the 1950's, right? 24 A They did, to see if there was any 25 marketable commodities that may potentially be shipped</p>	<p style="text-align: right;">Page 47</p> <p>1 into commercial use, would it be a potential 2 marketable service for that firm to basically need 3 shipping requirements to move that commercial product. 4 Q Okay. 5 A Asbestos was one of those that was 6 identified as a potentially marketable product that 7 may need shipping. 8 Q And we're talking about the asbestos, the 9 amphibole asbestos that was on Zonolite Mountain, 10 correct? 11 A The report, as I recollect it, referred 12 to that, that there was deposits of asbestos that, in 13 the region. 14 And I'm not specifically familiar if they 15 said, specifically, that it was in Zonolite Mountain. 16 Q I'm handing you State of Montana, Bureau 17 of Mines and Geology, E. G. Koch, K O C H, Director, 18 Bulletin 12, entitled, "Progress Report of Geologic 19 Investigations in the Kootenai, K O O T E N A I - 20 Flathead Area, Northwest Montana, Western Lincoln 21 County" by Willis Johns. 22 This report indicates that: 23 "This bulletin has been prepared by the 24 Montana Bureau of Mines and Geology under the 25 cooperative agreement with Great Northern Railway</p>
<p style="text-align: right;">Page 46</p> <p>1 in that region. 2 Q So, by the 1950's, the railroad knew that 3 Zonolite on the mountain, Zonolite Mountain near 4 Libby, had amphibole asbestos fibers in the Zonolite 5 ore, true? 6 A I don't believe that they did. 7 Q Well, they commissioned a study, they 8 reviewed a study -- 9 A Uh huh. 10 Q -- that was done by academics, correct? 11 A Uh huh. 12 MR. ROBERTS: Assumes facts not in 13 evidence. 14 Go ahead. 15 BY MR. LEWIS: 16 Q All right. I'll clear it up. You 17 understood the study was done by academics and 18 financed by Great Northern, correct, in the '50's? 19 A Academics? If you're referring to 20 geologists. 21 And if you're referring to the Great 22 Northern, it was commissioned by the Marketing 23 Department to see during a time of downturn economics 24 for the railroad to see if there was any potential 25 growth or any other commodities if it should ever come</p>	<p style="text-align: right;">Page 48</p> <p>1 Company and Pacific Power & Light, done at the Montana 2 School of Mines in Butte in 1959." 3 Is that correct? 4 A That is correct. 5 Q So, this study was done in cooperation 6 with the Great Northern Railroad. 7 Okay. Now, they're talking about on page 8 38, and I represent to Counsel that I do not have the 9 entire document. 10 We can produce the entire document. But 11 all I have here for the deposition are pages that 12 relate to the form of ore that was found on Zonolite 13 Company property up Rainy Creek at the location of the 14 mine. 15 And I have highlighted some things in 16 yellow, and I show them to Counsel first. Okay? 17 I know Counsel is familiar with this. 18 Would you read the description of the 19 form of mineral that was at this Zonolite mine that's 20 highlighted in yellow? 21 Read that into the record? 22 A "The pyroxenite is very coarse-grained 23 and composed of vermiculite, aegerine-augite, soft 24 fibrous amphibole asbestos (tremolite), magnetite and 25 locally a little biotite."</p>

(Pages 45 to 48)

<p style="text-align: right;">Page 49</p> <p>1 Q All right. Now, this is the study that 2 you're talking about, correct? 3 A I'm not totally certain, but I believe it 4 is. 5 Q It certainly is consistent with the fact 6 that the form of vermiculite found on Zonolite 7 Mountain, the ore is contaminated with amphibole 8 asbestos, as you earlier testified to, correct? 9 A It doesn't say it's contaminated. It 10 says it's present. 11 Q Okay. Well, and I'll stop using the term 12 "contaminated." I'll use that in a different context 13 later. That's a fair criticism, so I'll rephrase the 14 question. 15 This report which was done in cooperation 16 with the Great Northern Railroad in 1959 states 17 clearly that the vermiculite on Zonolite Mountain has 18 present with it, amphibole asbestos, true? 19 A That's what it says right there, yes. 20 Q And that's what you testified to earlier, 21 correct, without reference to this report? 22 A I believe I did, yes. 23 Q Okay. Now, you've heard me use the term 24 "contaminate." I'm going to go back to that term. 25 And I want to explain to you why I use</p>	<p style="text-align: right;">Page 51</p> <p>1 loading facility, so that the ore material could be 2 loaded onto the train cars, correct? 3 A That's correct. 4 Q All right. Do you know how the 5 vermiculite got from the mine down to that screening 6 plant on the other side of the river from the loading 7 facility? 8 A Okay. 9 Q Do you know that it was generally by 10 truck? 11 A Okay. And here we went from the Zonolite 12 ore to the term "vermiculite." 13 And so, I don't know if vermiculite ever 14 was transported that way. 15 Q Well, the problem here, you do not 16 recognize that Zonolite is a form of vermiculite? 17 A I recognize that vermiculite, when 18 expanded -- or Zonolite, when expanded, becomes 19 vermiculite. 20 Q You're sure about that? 21 A That's how I understand it, in my mind. 22 Q Okay. All right. Well, I can't do 23 anything about that, so we'll try to get it a 24 different way using different terminology. Okay. 25 Did you know that on the mine property,</p>
<p style="text-align: right;">Page 50</p> <p>1 that term. 2 And if it's not an acceptable term, I 3 won't use it again. 4 Did you know that before the vermiculite 5 was hauled by railroad cars, it had to be milled until 6 it was in the form of an unexpanded vermiculite 7 concentrate? 8 Did you know that? 9 A Run that by me one more time. I 10 apologize. 11 Q No, it's okay. 12 Were you ever at the vermiculite mine? 13 A I -- I viewed it from a distance, but 14 yes, I was in the proximity. 15 Q Were you at the vermiculite loading 16 facility where the railroad cars were loaded on the 17 other side of the river? 18 A I have been there, yes. 19 Q And there was what has been called a 20 screening plant at the bottom of Rainy Creek across 21 the river from the loading facility, do you recall 22 that? 23 A Yes, I do. 24 Q Okay. And then there's a conveyor that 25 ran from the screening plant across the river to the</p>	<p style="text-align: right;">Page 52</p> <p>1 the Zonolite ore was processed prior to shipment by 2 rail? 3 A Just by happenstance, yes. I read where 4 it was processed. 5 Q Do you know what unexpanded Zonolite 6 looks like? 7 A I have seen a sample representation of 8 it, yes. 9 Q Describe it, please? 10 A The materials I saw was granular -- I 11 guess we'll call "rock-like" in nature. 12 When crushed, it ranged in various sizes 13 from, you know, sand, up to pea, or larger. 14 Q Up to what? 15 A Pea size. 16 Q Oh, Pea. 17 A Or larger in the processed form. 18 I know that I have seen, you know, chunks 19 or larger, you know, what I'd call fist-sized rocks of 20 this material. 21 It ranged in color from dark browns, 22 grays, to black in nature. 23 But it was, in my opinion, a very 24 mineralized material. 25 Q Okay. Let me ask you this:</p>

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<p style="text-align: right;">Page 53</p> <p>1 Is it your understanding that the 2 vermiculite, or Zonolite, whatever it was that was 3 transported from Lincoln County by rail, was in the 4 form that you just described? 5 A That's my understanding. It's the 6 material that the corporation is involved; introduced 7 into transportation for us to haul for them. 8 Q Is it your understanding that some of it 9 would be as big as your fist? 10 Is that what you just said? 11 A Well, I said the sample that I saw, that 12 was what I saw as represented as being the Zonolite 13 ore. 14 Q Have you ever seen, at any time, Zonolite 15 ore being transported by rail? 16 A I have not. 17 Q All right. Let's go back. 18 Do you know whether the Zonolite ore was 19 processed before it reached BN rail cars? 20 A I know that there was a processing by 21 them of forms. 22 Again, I don't believe that that was the 23 final processing by the Zonolite Company, or its 24 haulers. 25 Q Okay. Have you ever heard the term used</p>	<p style="text-align: right;">Page 55</p> <p>1 "This unusual stock has many minerals of 2 potential value. The vermiculite, of course, is being 3 actively marketed as present. Fibrous amphibole 4 asbestos, because its specific gravity is very near 5 that of vermiculite, causes much trouble in milling 6 the lower grade ores in which the asbestos is 7 abundant. If a process could be perfected to make a 8 clean separation of vermiculite and asbestos, both 9 products would be marketable, and much material now 10 mined and dumped as waste would be milled and made to 11 yield a profit." 12 Okay. Do you recall that language now 13 from the report? 14 A I remember it, yes. 15 Q So, I just went through about twenty 16 minutes and asking you a bunch of questions, when all 17 I really had to do was read this to you and ask you if 18 you were aware of the fact that there was difficulty 19 in the milling process separating Zonolite, 20 vermiculite, Zonolite Mountain vermiculite from the 21 fibrous amphibole asbestos. 22 You knew that was a problem, right? 23 A In the milling of it, yes; by that, yes. 24 Q All right. 25 A But -- go ahead.</p>
<p style="text-align: right;">Page 54</p> <p>1 for what was being hauled as "vermiculite 2 concentrate"? 3 Ever heard that term before? 4 A I have not. 5 Q Okay. Now, I'm going to get back to your 6 use of the term "contaminate," why I used that term. 7 Is it your understanding that it was not 8 possible to remove all of the asbestos, the amphibole 9 asbestos, from the ore before it was transported by 10 rail? 11 A I don't -- I don't know. 12 Q So, you don't know whether any, or part, 13 or none of the amphibole asbestos described by this 14 geological study could be removed, or was removed 15 before the ore was transported by rail, is that true? 16 A I guess that's true. 17 Q Okay. Do you know if the asbestos that 18 was transported by rail contained -- let me strike 19 that. 20 I'm going to show you another paragraph 21 in this report. I'll read it to you, okay, into the 22 record. 23 And for Counsel's reference, it's the 24 second paragraph on page 39 of this Bulletin 12 from 25 the State of Montana Bureau of Mines and Geology:</p>	<p style="text-align: right;">Page 56</p> <p>1 Q Now, have you seen expanded Zonolite? 2 A Yes. 3 Q Have you ever seen a sack of Zonolite? 4 A A full sack, no. 5 Q You've seen a sack where it's got red on 6 the brown sack, right? 7 A Yes. 8 Q It says "Zonolite"? 9 A Uh huh. 10 (The Witness nodded his head up and 11 down.) 12 Q It says, "Contains asbestos," right? 13 A Not the one that I saw. 14 Q Okay. And I think you're right. 15 I think, early-on, they did not mention 16 asbestos. I stand corrected -- at least the sacks did 17 not. 18 Q You never saw one that said "asbestos" on 19 it? 20 A No, I did not. 21 Q Where did you see that sack? 22 A It was actually in Libby. 23 Q Did you look inside the sack to see what 24 was present? 25 A I guess I did not look inside the sack.</p>

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<p style="text-align: right;">Page 57</p> <p>1 Q Did you notice the material in the sack 2 was extremely light? 3 A The sack was empty that I saw. 4 Q Oh, it was empty, okay. 5 So, you've never seen expanded 6 vermiculite after it's packaged for resale to the 7 public, or for use, right? 8 A Not from -- from Libby, no; I have not. 9 Q All right. Did you know that up until 10 sometime in the late '50's or early '60's that some 11 Zonolite was being expanded in Libby near the Rail 12 Yard? 13 A I've read that, yes. 14 Q Where did you read that? 15 A It was in an EPA report that simply went 16 through the process, some of the history. 17 Q Okay. Now, what I want to clarify -- 18 let's go back to the yard -- is that you understand me 19 that what was being abated was some form of 20 vermiculite in an unexpanded state? 21 A We're back to this same term that -- that 22 was unexpanded Zonolite materials that were in the 23 yard. 24 Q Okay. That's good enough. 25 And the shine was the unexpanded bits --</p>	<p style="text-align: right;">Page 59</p> <p>1 that for a minute. 2 Did you actually observe them excavating? 3 A Yes, I did. 4 Q Okay. And were there barriers or signs 5 or warnings of some type put out around the yard so 6 workers and unauthorized persons did not enter the 7 abatement area? 8 A Yes. 9 Q And what did the warnings say? 10 A Well -- 11 Q If you recall? 12 A Yeah. 13 In conjunction with the EPA, we agreed 14 upon using barriers that were commonly available that 15 says, "contains asbestos." 16 And so we didn't have anything other to 17 say -- it contains vermiculite, or anything else. 18 So, it was agreed upon in our work order 19 that that's how we would designate a barrier; as if we 20 were conducting a normal Asbestos Abatement Project. 21 Q Well, in fact it was a normal Asbestos 22 Abatement Project. That's how you would excavate for 23 asbestos on any site which had excessive levels of 24 asbestos in the ground, correct? 25 A That's correct.</p>
<p style="text-align: right;">Page 58</p> <p>1 bits of unexpanded vermiculite that was on the surface 2 of the ground, the sparkle, correct? 3 A I guess, yeah, among other things, yeah. 4 Q Well, were you at the yard when they had 5 barriers up during abatement? 6 A Yes, I was. 7 Q Did you see the little red wire things 8 sticking up in the yard? 9 A I guess I don't recall that one. 10 Q Did you know that there's a report in 11 your records indicating, in the railroad records, not 12 your records, but the railroad records, indicating 13 that there was an area -- in the area where the 14 material was sparkling, they did not even test that 15 for asbestos, because they knew it was there because 16 of the sparkling? 17 A It was used as an Indicator, yeah. 18 Q And then where the sparkling was not 19 present, they tested soil that they were excavating. 20 And then they excavated down to a level 21 where the asbestos -- no asbestos fibers could be 22 found. 23 Is that your understanding? 24 A That's correct. 25 Q Okay. All right. Now, let's talk about</p>	<p style="text-align: right;">Page 60</p> <p>1 Q Okay. All right. And so, and this sign 2 said, "Danger: Asbestos may cause lung disease and 3 cancer," something -- words to that effect? 4 A Again, that's a required posting. 5 But yes, right on the Regulations, said 6 it just as required under OSHA and AHERA Standards, 7 yes. 8 Q Okay. So, what was posted was the 9 approved EPA or AHERA sign that for asbestos says, 10 "Danger -- asbestos. Asbestos may cause asbestosis, 11 cancer." 12 Did it also include the term 13 mesothelioma, if you know? 14 A I don't know. I can't remember. 15 Q We can find that sign in the OSHA 16 Regulations, correct? 17 A Correct. 18 Q Okay. So, we don't need to go there any 19 more. 20 I want to talk about the excavation 21 itself. 22 I assume you used various pieces of 23 equipment to excavate? 24 A Certainly, yes. 25 Q Now, the first thing you had to do, I</p>

(Pages 57 to 60)