

Senator Moss. Your hope is that the Congress can rather quickly clear up this problem of withdrawal of some of the minerals so that you can move into actual production; is that right?

Mr. SMITH. We were a little discouraged listening to the description of the "legal thicket" yesterday. We do not think we are as involved in that as possibly some other areas are. We feel that it might be possible for us to move ahead faster. However, we are not ready for production at all. We would certainly have to go through a pilot plant phase before we go to a commercial plant. This is the proposal we made to the Secretary of the Interior.

Senator Moss. Are you part of the group which has agreed to support the research and development work in the *in situ* experiment?

Mr. SMITH. We have agreed to help support the AEC atomic explosion, but we are not involved in the Anvil Point group.

Senator Moss. Would your company concentrate on the extraction of nahcolite and dawsonite and work in conjunction with one of the oil companies on the oil part, or would your company do all three?

Mr. SMITH. We are not sure which route we would go ahead with. It depends a good deal on what the next step in our research and development program develops.

Senator Moss. You have not made that decision as yet?

Mr. SMITH. We have not committed ourselves; no, sir.

Senator Moss. Well, your testimony certainly is helpful and enlightening. We appreciate it very much. Probably there will be some questions from the other Senators.

Senator Allott?

Senator ALLOTT. Yes. I realize the hour is late, Jim. I want to congratulate you on a very, very fine statement, but I would like to clarify something I am not quite sure about, from Mr. Nielsen—on account of the sound system we have here.

Did I understand you to say, Mr. Nielsen, that there were sufficient deposits of dawsonite and nahcolite, which were essentially separated from the oil shale itself, that would permit or had promise of permitting a viable industry to develop in just this area alone?

Mr. NIELSEN. I am not sure I understand your question, but—

Senator ALLOTT. Okay. I will put it another way, then.

Did I understand you to indicate that there were sufficient deposits of dawsonite and nahcolite which were essentially separated from the deposits, the oil shale deposits themselves, that you could operate in the foreseeable future and develop a considerable industry without getting into the production of oil itself?

Mr. NIELSEN. No. That is not—

Senator ALLOTT. The reason I ask this is that Mr. Smith, in his testimony, talked about the overall strata of the Green River formation, but he also spoke about vertical areas, which were relatively a small part of the whole Green River formation, in which the dawsonite and nahcolite were very prevalent. Perhaps it would help if you would geologically explain this situation.

Mr. NIELSEN. All right.

The dawsonite and nahcolite occur intermingled in oil shale. It is not possible to extract dawsonite and nahcolite under most conditions without extracting the host rock, oil shale, which is one and the same, in effect.