

ment agreements at the most logical places in terms of the opportunity for technology, in terms of the location of the resource, and so logically we should begin at those points to clear away the mining claims so we can lead to some of the others later. And the whole forward movement of this, it appears to me at this point, will move just as fast as we can clear away claims and get our leasing techniques perfected.

The CHAIRMAN. In connection with the blocking up program which is point No. 2, I do not envy your task in trying to ascertain the value of the property to be exchanged. Now, this phase is going to require, of course, a lot of core drilling, I assume, and extensive surveys by the appropriate agencies within the Department of the Interior to make sure that the exchange is fair and equitable and just, so as to prevent a situation in which there can be the accusation of an unequal exchange.

Mr. UDALL. Well, because of the tremendous values here, Senator, I think you are correct. We are probably going to have to refine and elaborate upon our land exchange techniques. This may involve a type of drilling or other mineral analysis that we would not normally do because the values are so tremendous. But if one follows the general assumption that you are going to have what we would call value for value exchanges, and if the technology of exploration enables you to ascertain what values are, you can make an exchange without fear or favor.

One of the things that any Secretary of the Interior blanches at normally is a land exchange. He always wants to know whether the values are equal and oftentimes when a controversy arises we have as many as two or three appraisals if it is surface land values that we are talking about.

So I want you to know I am very wary on this and it is one of the things that I and my predecessors have learned, that you better know what the values are when you start making the exchange or you could have a giveaway of resources which may lead to and certainly merits a public outcry.

The CHAIRMAN. The techniques by which you determine property values beneath the surface, of course, have not been fully perfected, I take it. There is a lot yet to be learned. And this is an area that has to be handled very carefully.

With reference to the fourth point, Mr. Secretary, I am concerned about the course of events in our Plowshare program. You know, we recently canceled one of the tests and I believe Mr. Kelly may be testifying on that. But I expressed concern at the time of the test ban treaty about its possible effect on the development of the peaceful uses of atomic energy. I have always felt that there is a tremendous opportunity for pushing this program forward through Plowshare, and possibly Mr. Kelly can address himself to that problem when he is called upon to testify, unless you care to say something at this time.

Mr. UDALL. I want to make two points, Senator. It is our judgment that the potential—at this point no one can describe it with precision—but the potential for using contained underground atomic explosions to enhance oil shale recovery may be very great. We do not know yet. This may be the key. This may be precisely what is needed to make the *in situ* process feasible.