

July 10, 1963

Mr. H. W. Volkman
Newmont Mining Corporation
300 Park Avenue
New York 22, N.Y.

Dear Mr. Volkman:

I appreciate the reasonableness of the comments of the Assistant General Manager of your Company, despite the experience which tells me that he is underestimating the difficulties which will be encountered in doing as he suggests. In any case, we shall go along with his and your wishes. I'll gather together, shortly, the necessary information and send it to you for forwarding to him. I am confident that they can meet the requirements, eventually, through correspondence.

Meanwhile, we shall supply the containers with instructions for the collection of samples of urine and blood. Before doing so, however, we need to know what numbers of persons are to be involved in the first round of analyses. It is difficult to give suitable advice at so great a distance, but perhaps I can make the objective clear, and then rely upon your people to make the initial decision. Not knowing the stage of the development of the smelter, I am at loss to know just what should be done at once.

1. It is possible that certain persons will be employed in the smelter who have not engaged previously in work involving occupational exposure to lead. If so some of these persons can be used to provide a base line for all subsequent observations. If this is the case, some of these men should be so examined (analytically) before they engage in such work.
2. Others may have had previous experience in work of the sort, and it would be useful to know just where they fit into the pattern that is to be created by the operation of the new smelter. A group of this type should be included in the initial round of sampling.
3. If the smelter is operating, various men are employed in various specific jobs at specific locations. Depending upon the total number of men in each category, all of those employed in certain jobs can be included (if the number is small), or those who can be regarded as representative of each group can be checked.

If the operations have not begun it may be possible

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to select men who will be representative of the various jobs, and so include them as to establish the base line for the new operation.

4. Some degree of care should be taken in the selection of truly representative personnel. We propose to use the data of periodic surveys to determine the severity and the hygienic significance of the occupational exposure to lead. This can best be done by the selection of reliable men who may be expected to continue to work at certain jobs in certain areas for more or less indefinite periods of time. One may carry out analyses of the air at all of the characteristic sites and obtain findings that will portray the state of affairs, so far as airborne lead is concerned at these points at the time of sampling. The investigation of the men, who, indeed, are the best of all sampling devices, on the other hand, will reveal the effects of their actual experience in terms of the relative severity of their exposure. These data will also show whether or not the individual man is in a safe or dangerous state, from the aspect of the absorption of lead. Thus every man so investigated reveals his own experience, and if one observes this man at the start of his occupational exposure and then observes him periodically, the observations will demonstrate the significance of the occupational exposure. Such data on individuals, when combined, reveal the pattern of the occupational exposure to lead which characterizes the industry. In order to do this, however, the individuals must be truly representative of their jobs, and therefore, the day by day information concerning their actual employment is essential.

I believe this communication will cover the essential points now under consideration. If you will advise me as to the number of containers to supply we shall get them on their way by such means as you advise. Incidentally, the analytical work will cost \$12.50 per analysis, whether of blood (duplicate samples regarded as one sample) or urine. Shipping charges will be billed to you additionally.

Very truly yours,

Robert A. Kehoe, M. D.

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