May 7, 1932

Mr. K. W. Gilmore
Humble Oil Company
Houston, Texas

My dear Mr. Gilmore:

I have delayed somewhat in replying to your letter in which you enclosed a brief of the [redacted] case.

After having gone over the matter, it seems quite clear to me that from a medical point of view the case has no merit. Nevertheless I recognize that such cases are not always settled on their merit.

Such testimony as I would be disposed to present would be based on certain primary considerations.

1. The diagnosis of acute nephritis was an entirely justifiable diagnosis. The type of nephritis present was in no way characteristic of the kidney conditions which are occasionally seen in association with lead intoxication. In addition to the evidence of their physicians, my assistant Dr. Schradin saw [redacted] and diagnosed the case with his physicians and established the following points which are of importance. Onset began with headache and abdominal cramps, swelling of the feet and shortness of breath. Very early in the course of his illness, his urine was discolored, of a brick dust color. He had fever and he described a sore throat a day or two previous to the onset. (Immediately after having made this statement, he retracted it and admitted on questioning that he had had sore throat.) Furthermore, Dr. Tucker stated that he had had trouble with his throat for years and had advised a tonsilectomy repeatedly. It thus seems quite clear to me that this was a case of acute infectious nephritis. Thus one need not look for any unusual circumstance as the background for this illness.

2. The character of [redacted] work was not of the type which is associated with significant lead exposure. There is a huge background of experimental evidence to show that the handling of Ethyl gasoline does not bring about an appreciable absorption of lead through the skin. Furthermore, in the course of distillation of the type Mr. [redacted] carried out, there is no occasion whatever for inhalation of lead. The distillate is quantitively reclaimed so that even very small amounts of lower boiling point petroleum products are lost. Therefore, it is obvious that no measureable quantity of high boiling point Tetra-ethyl lead escapes into the air. The background of experiment and experience here is so good and so complete that I have not regarded it as necessary to see to it that distillations of this type are carried out in a hood.

The specific instance of exposure which has been stressed apparently, has to do with a fire with which some Ethyl gasoline burned in the laboratory. Under these circumstances any Tetra-Ethyl lead present in the gasoline was burned away in the same general manner as it would have been burned in a motor, producing a certain amount of finely divided lead in the form of lead bromide and lead oxide. From the amount of gasoline actually burned, one could readily compute the amount of such lead compounds which were formed. Undoubtedly the amounts were of no consequence but when one considers the fact that such lead compounds are discharged in the exhaust gases of automobiles without injury and without measureable lead absorption on the part of persons who are working with motors, this exposure described for Mr. Castleberry becomes quite insignificant.

The diagnosis of lead poisoning and lead absorption can be made only on the basis of the establishment of the existence of significant exposure as well as characteristic symptoms and signs. In this instance, it is quite clear that neither of these two necessary elements are present as a basis for diagnosis. That is to say, there is no evidence of his having had significant exposure to lead and there is no evidence that he had any characteristic symptoms or signs of lead intoxication. On the other hand, he did have a hephritis of a not unusual type which is sufficient in itself to explain one or all of his symptoms and his eventual death.

I do not believe that there should be any great difficulty in establishing the soundness of this position. From both clinical and experimental point of view, the case is a very clean cut one. I shall be prepared to testify as I have indicated as to my opinion and I should be able to support my opinion with satisfactory clinical evidence and a large amount of experimental information which is available in medical literature.

Very truly yours,

RA K:IS