

November 27, 1940

Mr. John S. Cole
828 East Second Street
Casper, Wyoming

Dear Jack:

I am enclosing herewith the analytical report on the material obtained from a section of pipe from the Casper Refinery. The discrepancy between our analytical findings and those of the refinery chemist may be easily explained by variation in samples taken at different levels or from different portions of the pipe; both are, however, in agreement in that significant amounts of lead are present.

In so far as the occurrence of charring is concerned, this may not be taken as evidence of the presence of organic lead, which will be volatilized or decomposed to inorganic lead by heat without intermediary charring. On the other hand, charring of hydrocarbons may occur, which would explain the carbon found in his sample. The results for organic lead are low and indicate that no great hazard is to be expected unless these pipes are handled in enclosed places. On the other hand, any hot work would vaporize not only the organic, but the inorganic lead, and suitable precautions should be taken whenever this is done. It is important to remember that at the temperatures of the oxy-acetylene torch, inorganic lead compounds such as those found in paint will be vaporized and lead poisoning may result from the fumes so liberated. In the case of the pipe, this hazard is of much greater importance than that from the small amounts of organic lead present.

Cordially,

WM:vr

Willard Machle, M.D.

cc - Dr. L. W. Sanders