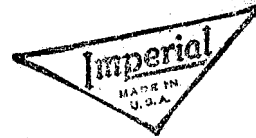


Standard Oil Co. of California,
El Segundo, California



Reorder No. 912-1/3

PARK BRAND FOLDER
MEDIUM HEAVY WEIGHT

KE 0018447

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Dear Dr. Prince:

I am sending you herewith analytical reports on the samples of blood and urine from the group of men referred to in my letter of September 18. A bit of interpretation may be useful to you in connection with these results. First, I say that there is somewhat more innate variation in results obtained on small samples of urine than would be the case if we had dealt with samples of large volumes. Actually we find that the variation in the rate of water excretion is an important factor in the lead concentration. Consequently spot samples obtained from normal individuals range from 0.01 to 0.03 per liter. This makes it a little difficult to differentiate normal from abnormal samples. It is for this reason that we make use of blood samples in conjunction with spot urine samples, for the variability of the blood samples is considerably less, the normal range extending from 0.01 to 0.03 per 100 grams. With these points in mind you will see that some of these individuals show some evidence of occupational lead absorption, although in the case of Todtman the values for blood and urine are within substantially normal limits. In the case of [REDACTED] the blood value is normal, but the urinary value is just a little elevated. [REDACTED] and [REDACTED] show evidence of elevated lead concentration in their blood, but the urinary values are within normal limits.

The meaning of these data taken together seem to me to be clear. These men are having some slight, and probably intermittent lead exposure in connection with their work, but the order of severity of this exposure has been so slight in the recent months that it cannot be regarded as actually hazardous. Certainly it is not to be anticipated that men excreting these quantities would be likely to develop lead intoxication.

Our experience with lead burners in recent years has demonstrated that they may be exposed to hazardous amounts of lead. This is particularly true when they work continuously on repair and maintenance jobs. On the other hand, if their exposure is intermittent, or if the jobs performed vary considerably in severity, lead poisoning is rare in its occurrence. If the jobs are conducted with care against exposure, poisoning can be avoided completely.

KE 0018448

RAK of

Enc.

Robert A. Kehoe, M. D.

KE 0018449