REFERENCES


DISCUSSION

DELBKE: Is the extraction procedure valid for amphetamine-like substances? Have you any idea about the analysis of amphetamine-like compounds due to the solubility of the hydrochloride in ether?

HAYWOOD: The extraction procedure is used to detect amphetamine-like substances. This method will detect 10 micrograms of amphetamine added to 100 millilitres of urine.

MAYNARD: We ran into a great number of pyrocresols in urine samples, these are depressed by the use of mercuric chloride in the urine sample. Our samples are sometimes as much as 48 hours in transportation and temperatures in some areas of Canada during the Summer ranges between 90 and 95°F. Therefore we are getting degradation of the urines and this has been attributed mainly to the fact that stallion urines give the greatest amount of pyrocresol, geldings next and mares least. We do find two other sources of phenolics, one of course is antiseptics, used in washing down and getting into the urine sample. The other is cough medicines using guaiachol, although you can small guaiachol if it is there.

HAYWOOD: In fact we have only detected cresol once and the sample was from Africa.

MAYNARD: This could quite possibly be a high temperature degradation product.

CLARKE: Some 20 years ago I received a sample of urine from Trinidad which had travelled by sea, there was so much phenolic acid in it the specimen resembled a sample of tar.

CHAPMAN: I would like to comment that some years ago we did extract phthalates from horse urine and we got the impression these were probably from the bottles we collected the samples in since the horses were under our own control. In this case it was dibutyl phthalate and we confirmed it by mass spectrometry. It was in the acidic fraction extracted with ethyl acetate, but it was quite a regular contaminant.

JOHNSTON (Canada): Probably the largest number of times that something comes up on the mis-match scan of our GC/MS it is butyl phthalate. It is always there in some quantity and we use plastic containers.

MAYNARD: I would like to suggest in some future meeting a session should be devoted to extraneous substances because we have quite a long list of extraneous substances that have been extracted in the three official laboratories in Canada. Some have been definitely identified, some we don’t know what they are although we hope to use the mass spectrometer to identify these too.

TOBIN: Does your Racing Authority take action when you report phthalates?

HAYWOOD: No, I did not report the phthalate, it was really the subject of a procaine enquiry and there seems to be a perfectly rational explanation for its presence.