

Monsanto

OCT 2 1980

FROM
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DATE : October 1, 1980

bcc D. R. Bishop - A3NB

SUBJECT : POLYCHLORINATED BIPHENYLS IN SAMPLES
FROM CAULK'S CREEK SITE

C. E. Callins - B3CA

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TO : John H. Craddock

File
PCD

We have completed our analyses of the five composited drum samples and one soil sample from sites near Caulk's Creek, which were delivered by a representative of Rosalie Investment Company. Five of the samples (four composite drum samples and one soil sample) did not contain polychlorinated biphenyls above our experimental detection limit of five parts per million (ppm). These samples were subjected to standard cleanup techniques and the polychlorinated biphenyls were measured by gas chromatography/mass spectrometry (GC/MS). One composite drum sample was not amenable to GC/MS analysis because of the nature of the material in the sample. After the sample was cleaned up, the polychlorinated biphenyls were measured by electron capture gas chromatography (EC-GC). This sample contained 4 ppm polychlorinated biphenyls. (The lower detection limit for this technique resulted from reduced background contamination for this chromatographic detector for this sample.) If we assume this composite represents seven drums, then the most any one drum could contain is still less than 30 ppm polychlorinated biphenyls, which is below the 50 ppm EPA action level. Each of the samples was "spiked" with 5 ppm polychlorinated biphenyls to demonstrate our ability to measure the polychlorinated biphenyls at the stated detection limit.

These spiked samples were analyzed identically to the unspiked samples. Our recovery of the polychlorinated biphenyls averaged 94% at the 5 ppm level.

The complete report, including experimental details, will be issued as soon as possible.

Robert G. Kaley
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