Monsanto

COMPANY CONFIDENTIAL

H. L. Campbell - WGK

September 11, 1974

Anniston Alabama Fish Survey - PCB Residue Analysis Work Proposal 2542

M. J. Horner
K. Schutzenhofer/T.Osthoff

TO

E. E. Stewart

The results of the special survey of fishes for PCB residues are enclosed. Only the preferred samples have been analyzed, as indicated by the surveyor, Dr. Gunning.

The analyses were performed by our technicians, K. Schutzenhofer and T. Osthoff following a standard, written procedure. In all cases the entire sample was taken and ground; however where the wet sample weights exceeded the recommended amount, a well mixed portion was taken for the analysis. The determinative step was by electron capture gas chromatography, with the HP-3352 data reduction system used to identify the Aroclor and quantify the result. At least two analytical blanks were run during the course of the analyses.

The remaining samples will be kept in cold storage for at least two months before discarding.

H. L. Campbell

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I. Shoal Creek, tributary to Choccolocco Creek, 2.3 miles east of White Plains, Alabama - June 11, 1974

| Species | PCB's (ppm) Lipid | Wet |
|---|---|---|
| Lepomis Megalotis (longear Sunfish) | 1.79 | 0.04 |
| Lepomis Macrochirus (bluegill) | 32.6 | 0.35 |
| Micropterus Coosae (coosa bass) | 5.30 | 0.09 |
| Percina Nigrofasciata (blackbanded darter) | 1.74 | 0.06 |

II. Choccolocco Creek at Highway 9, 1 mile south of White Plains, Alabama, Fish Station 3 - June 11, 1974

| | | |
|---|---|---|
| Notropis Venustus (blacktail shiner) | 79.3 | 2.93 |
| Notropis Stilbus (silverstripe shiner) | 26.4 | 0.94 |
| Campostoma Anomalum (stoneroller) | 15.8 | 0.67 |
| Lepomis Microlophus (redear sunfish) | 22.9 | 0.32 |
| Lepomis Cyanellus (green sunfish) | 18.6 | 0.30 |

III. Choccolocco Creek, Fish Station 7, Highway 95, Martha H. Williams Bridge - June 11, 1974

| | | |
|---|---|---|
| Dorosoma Cepedianum (gizzard shad) | 6600 | 62.2 |
| Carassius Auratus (goldfish) | 4570 | 889 |
| Notemigonus Crysoleucas (golden shiner) | 877 | 19.6 |
| Notropis Venustus (blacktail shiner) | 1320 | 80.5 |
| Lepomis Cyanellus (green sunfish) | 2020 | 53.7 |
| Lepomis Macrochirus (bluegill) | 2430 | 26.2 |
| Lepomis Microlophus (redear sunfish) | 2840 | 36.0 |
| Percina Nigrofasciata (blackbanded darter) | 1580 | 48.3 |

IV. Choccolocco Creek, Fish Station 8, Highway 93 Bridge, 3 miles south of I-20 - June 11, 1974

| Species | PCB's (ppm) Lipid | Wet |
|---|---|---|
| Compostoma Anomalum (stoneroller) | 338 | 11.4 |
| Notropis Stilbus (silverstripe shiner) | 855 | 26.2 |
| Notropis Venustus (blacktail shiner) | 731 | 39.7 |
| Lepomis Macrochirus (bluegill) | 897 | 43.5 |
| Percina Nigrofasciatus (blackbanded darter) | 1620 | 22.7 |

V. Choccolocco Creek, Highway 77 Bridge, Fish Station 10 - June 12, 1974

| | | |
|---|---|---|
| Dorosoma Cepedianum (gizzard shad) | 860 | 15.6 |
| Campostoma Anomalum (stoneroller) | 524 | 18.5 |
| Notamigonus Crysoleucas (golden shiner) | 825 | 9.30 |
| Lepomis Megalotis (longear sunfish) | 1050 | 43.6 |
| Lepomis Microlophus (redear sunfish) | LOST SAMPLE | |

VI. Cheaha Creek, Tributary to Choccolocco Creek, 3.6 miles south of I-20, Highway 93, - June 11, 1974

| | | |
|---|---|---|
| Campostoma Anomalum (stoneroller) | 81.0 | 5.52 |
| Notropis Venustus (blacktail shiner) | 108 | 6.69 |
| Lepomis Cyanellus (green sunfish) | 14.5 | 0.22 |
| Lapomis Macrochirus (bluegill) | 15.2 | 0.27 |
| Lepomis Megalotis (longear sunfish) | 78.7 | 2.94 |
| Percina Nigrofasciata (blackbanded darter) | 5340 | 56.8 |

VII. Cane Creek, Tributary to Coosa River, Alabama, 8.6 miles north of Lincoln, Alabama - June 12, 1974

| | PCB's (ppm) Lipid | Wet |
|---|---|---|
| *Dorosoma Cepedianum* (gizzard shad) | 62.0 | 2.10 |
| Cyprinus Carpio (carp) | 837 | 7.34 |
| Lepomis Macrochirus (bluegill) | 362 | 6.98 |
| Lepomis Megalotis (longear sunfish) | 173 | 3.23 |

VIII. Aker Creek, Tributary to Coosa River, 6.6 miles north of Lincoln, Alabama - June 12, 1974

| | | |
|---|---|---|
| Campostoma Anomalum (stoneroller) | 3.87 | 0.25 |
| Notropis Venustus (blacktail shiner) | 32.0 | 1.02 |
| Micropterus Coosae (Coosa bass) | 25.6 | 0.25 |
| Percina Nigrofasciata (blackbanded darter) | 52.9 | 0.55 |

IX. Coosa River at Stemley Bridge (Logan Martin Reservoir), Highway 34 - June 12, 1974

| | | |
|---|---|---|
| Lepomis Megalotis (longear sunfish) | 550 | 17.2 |
| Lepomis Cyanellus (green sunfish) | 1250 | 13.6 |
| Lepomis Macrochirus (bluegill) | 1010 | 21.7 |
| Micropterus Punctulatus (spotted bass) | 416 | 6.70 |

X. Clear Creek, Tributary to Coosa River (Logan Martin Reservoir), Highway 42 - June 12, 1974

| | | |
|---|---|---|
| Notemigonus Crysoleucas (golden shiner) | 68.0 | 0.95 |
| Lepomis Megalotis (longear sunfish) | 89.8 | 2.91 |
| Lepomis Macrochirus (bluegill) | 180 | 2.99 |
| Lepomis Microlophus (redear sunfish) | 159 | 3.54 |
| Micropterus Punctulatus (spotted bass) | 177 | 1.48 |

| | Type | | Total |
|---|---|---|---|
| C. Grab samples of water and sludge obtained outside the plant on 3/28/74 | | | |
| a) Bridge upstream of Martha Williams bridge on Choccolocco Creek | | | |
| 1) Water | 1242 | Trace | <10 ppb |
| 2) Sediment | 1248<br>1254 | 288 ppb<br>404 ppb | 691 ppb |
| b) At Martha Williams Bridge on Choccolocco Creek | | | |
| 1) Water | 1242 | Trace | <10 ppb |
| 2) Sediment | 1248<br>1254 | 448 ppb<br>556 ppb | 1000 ppb |
| c) Choccolocco Creek at Highway 93 | | | |
| 1) Water | 1242 | Trace | <10 ppb |
| 2) Sediment | 1248<br>1254 | 8360 ppb<br>13350 ppb | 21,700 ppb |
| d) Stemley Bridge on Logan Martin Lake | | | |
| 1) Water | 1242 | Trace | <10 ppb |
| 2) Sediment | 1242<br>1254 | 188 ppb<br>125 ppb | 313 ppb |