ANALYTICAL RESULTS FOR PERFLUORINTED COMPOUNDS IN FISH TISSUE SAMPLES

Analytical Analysis for perfluorinated compounds performed by:
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SAMPLES AND ANALYSIS:

Samples were received at the State Environmental Health Lab (EHL) on June 17, 2019. They were stored at -20°C and processed according to standard operation procedures (SOP) of the Fish Monitoring Program and EHL. Standard EHL QA/QC procedures were followed. Eight homogenate samples, 4 fillet and 4 liver were sent to SGS-AXYS Analytical on June 19, 2019 for Per- and Polyfluoroalkyl Substances (PFAS) analysis.

PFAS compounds reported by SGS-AXYS include: PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFNA, PFDA, PFUnA, PFDoA, PFTrDA, PFTeDA, PFBS, PFPeS, PFHxS, PFHpS, PFOS, PFNS, PFDS, PFDOS, 4:2 FTS, 6:2 FTS, 8:2 FTS, PFOSA, N-MeFOSA, N-EtFOSA, MeFOSAA, EtFOSAA, N-MeFOSE, N-EtFOSE, HFPO-DA, ADONA, 9Cl-PF3ONS, and 11Cl-PF3OUDS. Compounds in tissue were quantified using AXYS method MLA-043 which is an isotopic dilution method via HPLC/MS-MS. Detection limits range between 0.198 and 1.98 ng/g.

RESULTS:

A table of the data is provided below. Results are reported in ng/g (parts per billion) wet weight. PFAS Compounds (see above) not listed in Table 1 were not detected in the tissue samples.


Fish consumption guidelines for Alaska can be found at http://dhss.alaska.gov/dph/Epi/epb/Pages/fish/default.aspx
Figure 1: Sample Locations
Table 1: PFAS in Burbot from The Fairbanks Area 2019

<table>
<thead>
<tr>
<th>Site</th>
<th>ClientID</th>
<th>Tissue</th>
<th>COMPOUND</th>
<th>CONC</th>
<th>UNIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healy Lake</td>
<td>19-7B</td>
<td>Liver</td>
<td>PFOS</td>
<td>0.355</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Nenana River Confluence</td>
<td>19-2B</td>
<td>Fillet</td>
<td>PFOS</td>
<td>0.251</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Nenana River Confluence</td>
<td>19-2B</td>
<td>Liver</td>
<td>PFHxA</td>
<td>2.720</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Nenana River Confluence</td>
<td>19-2B</td>
<td>Liver</td>
<td>PFOS</td>
<td>1.180</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Nenana River Confluence</td>
<td>19-5B</td>
<td>Liver</td>
<td>PFOS</td>
<td>1.090</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Nenana River Confluence</td>
<td>19-5B</td>
<td>Liver</td>
<td>N-EtFOSA</td>
<td>0.592</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Tanana River- Middle</td>
<td>19-6B</td>
<td>Fillet</td>
<td>PFOS</td>
<td>0.441</td>
<td>ng/g (wet weight basis)</td>
</tr>
<tr>
<td>Tanana River- Middle</td>
<td>19-6B</td>
<td>Liver</td>
<td>PFOS</td>
<td>1.300</td>
<td>ng/g (wet weight basis)</td>
</tr>
</tbody>
</table>

*Note:*

Only samples with detectable levels are included in the table.