

## **APPENDIX F**

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### **SUMMARY OF LIMITS OF DETECTION FOR THE RECOMMENDED TARGET ANALYTES**



**Table F-1. Summary of Limits of Detection for the Recommended Target Analytes<sup>a</sup>**

<b>Target Analyte</b>	<b>Detection Limits<sup>b</sup> (ppb)</b>
<b>Metals</b>	
Arsenic (inorganic) <sup>c</sup>	5
Cadmium <sup>d</sup>	5
Mercury <sup>e</sup>	1.3
Selenium <sup>f</sup>	17
Tributyltin <sup>g</sup>	2
<b>Organochlorine Pesticides<sup>h</sup></b>	
Chlordane (total)	1
<i>cis</i> -Chlordane	
<i>trans</i> -Chlordane	
<i>cis</i> -Nonachlor	
<i>trans</i> -Nonachlor	
Oxychlordane	
DDT (Total)	
4,4'-DDT	0.1
1,4'-DDT	
4,4'-DDD	
2,4'-DDD	
4,4'-DDE	
2,4'-DDE	
Dicofol	1
Dieldrin	0.1
Endosulfan (Total)	5
Endosulfan I	
Endosulfan II	
Endrin	0.1
Heptachlor epoxide	0.1
Hexachlorobenzene	0.1
Lindane	0.1
Mirex	0.1
Toxaphene	3
<b>Organophosphate Pesticides<sup>i</sup></b>	
Chlorpyrifos	2
Diazinon	2
Disulfoton	2
Ethion	2
Turbufos	2

(continued)

Table F-1 (continued)

Target Analyte	Detection Limits <sup>b</sup> (ppb)
<b>Chlorophenoxy Herbicides<sup>h</sup></b>	
Oxyfluorfen	10
<b>PAHs<sup>i</sup></b>	1 ppt
<b>PCBs (Total Aroclors)<sup>h</sup></b>	20
<b>Dioxins/Furans (Total)<sup>k</sup></b>	1 ppt

PAHs = Polycyclic aromatic hydrocarbons.

PCBs = Polychlorinated biphenyls.

<sup>a</sup> Detection limit provided for analysis of tissue on a wet weight basis.

<sup>b</sup> Limit of detection shown is lowest value identified. For further information, see Table 8-4, Volume 1, of this series.

<sup>c</sup> Analysis by hydride generation atomic absorption spectrophotometry (HAA) with preconcentration (E. Crecelius, Battelle Pacific Northwest Laboratories, Marine Sciences Laboratory, Sequim, WA, personal communication, July 1999).

<sup>d</sup> Analysis by graphite furnace atomic absorption spectrophotometry (GFAA).

<sup>e</sup> Analysis by cold vapor atomic absorption spectrophotometry (CVAA).

<sup>f</sup> Analysis by hydride generation on atomic absorption spectrophotometry (HAA).

<sup>g</sup> Analysis by gas chromatography/flame photometric detection (GC/FPD) (E. Crecelius, Battelle Pacific Northwest Laboratories, Marine Sciences Laboratory, Sequim, WA, personal communication, July 1999).

<sup>h</sup> Analysis by gas chromatography/electron capture detection (GC/ECD), except where otherwise noted. GC/ECD does not provide definitive compound identification, and false positives due to interferences are commonly reported. Confirmation by an alternative GC column phase (with ECD), or by GC/MS with selected ion monitoring, is required for positive identification of PCBs, organochlorine pesticides, and chlorophenoxy herbicides.

<sup>i</sup> Analysis by gas chromatography/nitrogen-phosphorus detection (GC/NPD).

<sup>j</sup> Analysis by gas chromatography/mass spectrometry (GC/MS). Detection limits of  $\leq 1$  ppb can be achieved using high-resolution gas chromatography/mass spectrometry (HRGC/HRMS).

<sup>k</sup> Analysis by high-resolution GC/high-resolution mass spectrometry (HRGC/HRMS).