

**Annex B: Sampling and analysis methods**

Sample	Sample type	Sampling protocol	Method of Preparation	Method of Analysis
<b>Water</b>	Surface Water	<p><b>APHA Method 3010B:</b></p> <p>Samples were collected and stored in Polypropylene bottles which have been previously washed and soaked overnight in 2% HNO<sub>3</sub>, as per requirements for metal analysis.</p> <p>Samples were digested on the same day of collection as per Method EPA 1631E and analysed within 2 days.</p>	<p>As per EPA method 1631E: Digestion was conducted with conc. Hydrochloric acid (Trace metal analysis grade) on the day of collection</p>	<p><b>EPA Method 1631E:</b></p> <p>Mercury in Water by Oxidation, Purge and Trap, and Cold Vapor Atomic Fluorescence Spectrometry.</p> <p>Analysis was done on PSA Millenium under the millennium</p>
	Ground water			
	Wastewater			
	Effluent			
	Leachate (landfill)			
	Coal ash leachate	<p><b>Grab samples</b> of Coal ash were collected and stored in Polypropylene bottles, previously washed and soaked overnight in 2% HNO<sub>3</sub>, as per requirements for metal analysis. Process for leachate preparation was started on the day of collection.</p>	<p><b>BS EN 12457-1:2002:</b></p> <p>Characterization of waste – Leaching – Compliance Test for leaching of granular waste materials and sludges</p> <p>Part 1: one stage batch test at a liquid to solid ratio of 2L/Kg for materials with high solid content and with particle size below 4 mm (without or with size reduction)</p>	<p>merlin mode which detects down to 0.1 ppb of mercury in water samples.</p>