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Statement on analytical results for wastewater samples collected in the vicinity of Éltex Kft., Nógrád, Salgotarjan, Hungary in March 2024.

17th June 2024

To whom it may concern,

This letter reports the results of chemical determinations on one of two duplicate samples of wastewater sent to the Greenpeace Research Laboratories by Greenpeace Hungary in March 2024. The analyses were performed with a view to confirming the presence of certain target analytes in the wastewater.

According to Greenpeace Hungary, the samples provided to us had been collected on 18th March 2024, in pre-cleaned glass bottles, as duplicate samples from a wastewater discharge located in the vicinity of the Éltex Kft. facility, Nógrád, Salgotarjan, Hungary.

Both samples consisted of approximately 500ml wastewater and were received at the Greenpeace Research Laboratories in the UK on 22 March 2024. The duplicate samples were assigned the sample identification numbers HU24001A and HU24001B. To date, only sample HU24001A has been subject to analysis in our laboratories. Sample HU24001B has been retained in cold storage for any subsequent verification analysis, if needed.

Sample HU24001A was analysed using a range of techniques, designed to screen for the presence of a wide range of metal and organic contaminants. Instrumental analytical methods used included ICP-MS, HPLC-MS and GC-MS (for both volatile and semi-volatile organic compounds). Further details of the methods used can be provided on request.

The results are presented below in Tables 1 & 2.

Table 1: The three chlorinated volatile organic compounds (VOCs) listed below were identified in sample HU24001A using Headspace GC-MS analysis. Initial identification through computer-based spectral matching was subsequently confirmed through analysis of commercially available standards for the same compounds, ensuring high quality match of both retention times and mass spectra. The concentrations reported are semi-quantitative only, based on comparison of peak areas against those external calibration standards.

Compound name	**CAS number**	**Approximate concentration in HU24001A (semi-quantitative, using external calibration standards) (μg/l)**
Vinyl chloride	75-01-4	1030
cis-1,2-Dichloroethylene	156-59-2	840
trans-1,2-Dichloroethylene	156-60-5	Trace: not possible to quantify

Table 2: The concentrations of metals and metalloids (μg/l) found in sample HU24001A are set out below. The table shows concentrations of each element in dissolved form in the filtered sample, together with total concentrations determined in the whole (unfiltered) sample. Of the metals and metalloids analysed, iron was present at by far the highest concentration, 57000 μg/l (57 mg/l).

Metal/metalloid		**HU24001A**	
		dissolved (filtered) (μg/l)	**total (unfiltered) (μg/l)**
Aluminium	Al	<10	25
Antimony	Sb	<0.2	<0.2
Arsenic	As	0.3	25.6
Barium	Ba	26.3	111
Beryllium	Be	<0.2	<0.2
Cadmium	Cd	0.08	0.52
Calcium	Ca	159000	201000
Chromium	Cr	<0.5	0.6
Cobalt	Co	0.2	0.4
Copper	Cu	<2	3
Iron	Fe	20	57000
Lead	Pb	<0.1	28.6
Lithium	Li	13	16
Magnesium	Mg	41100	57300
Manganese	Mn	3380	4420

Mercury	Hg	<0.2	<0.2
Molybdenum	Mo	2.3	3.1
Nickel	Ni	0.4	1.3
Potassium	K	9960	14600
Selenium	Se	<1	<1
Sodium	Na	42300	51400
Strontium	Sr	712	926
Thallium	Tl	<0.1	<0.1
Tin	Sn	<1	<1
Titanium	Ti	<1	<1
Uranium	U	0.44	0.56
Vanadium	V	<1	<1
Zinc	Zn	6	34

Yours faithfully,

Dr David Santillo, Greenpeace Research Laboratories