

Report of the Inter-laboratory Comparison Project 2020 on Wet Deposition

23rd attempt

(Preliminary Draft)

SAC 21 26-28 October, 2021

Web meeting by WebEx



Asia Center for Air Pollution Research
Japan Environmental Sanitation Center

Network Center for the EANET

Artificial Rainwater Samples

Samples	<p>No. 201w (high concentration sample*)</p> <p>No. 202w (low concentration sample*)</p> <p>* concentration levels were not displayed on the sample when they were distributed</p>
Quantity	100mL each
Container	polypropylene bottle
Parameters	pH, EC, 3 anions (SO_4^{2-} , NO_3^- , Cl^-), 5 cations (Na^+ , K^+ , Ca^{2+} , Mg^{2+} , NH_4^+)
Note	<ul style="list-style-type: none">• Samples are distributed as concentrated liquid.• Participating laboratories have to dilute the samples 100 times with deionized water before analysis.

Prepared Values and Flag

Unit: EC [mS m⁻¹], Ions [μmol L⁻¹]

	pH	EC	SO ₄ ²⁻	NO ₃ ⁻	Cl ⁻	NH ₄ ⁺	Na ⁺	K ⁺	Ca ²⁺	Mg ²⁺
No. 201w	4.70	2.76	35.8	29.8	58.1	38.0	48.1	4.0	16.8	7.9
No. 202w	5.30	1.09	18.5	15.8	15.4	16.6	15.4	3.6	10.2	3.6

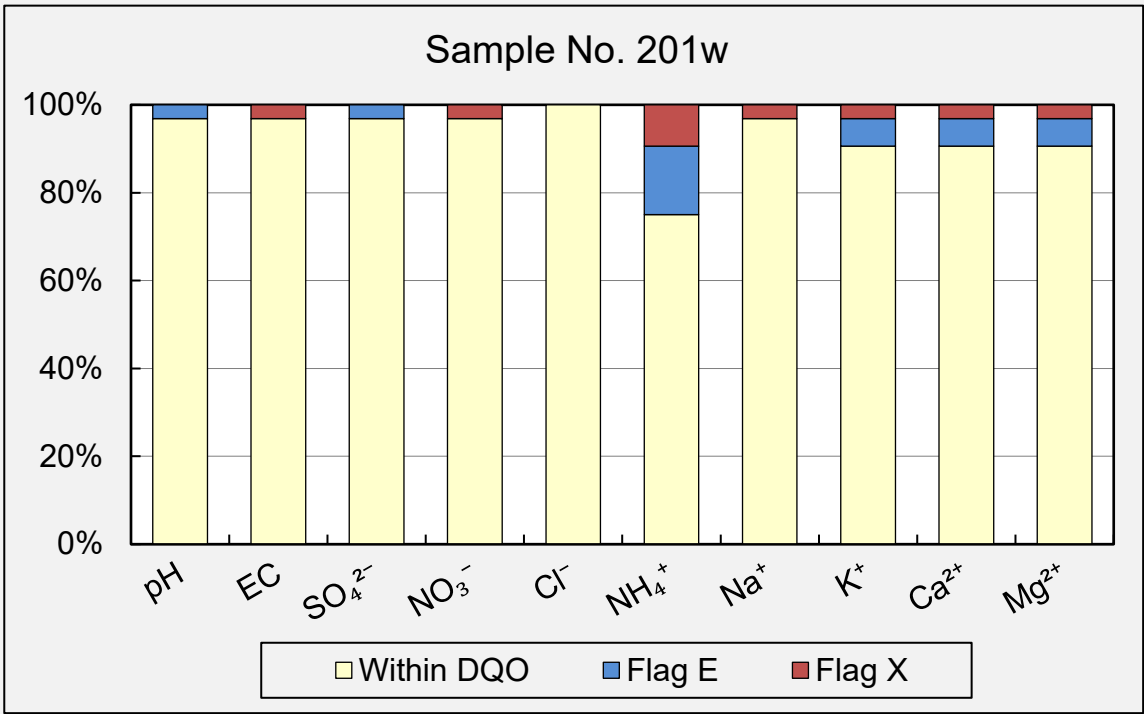
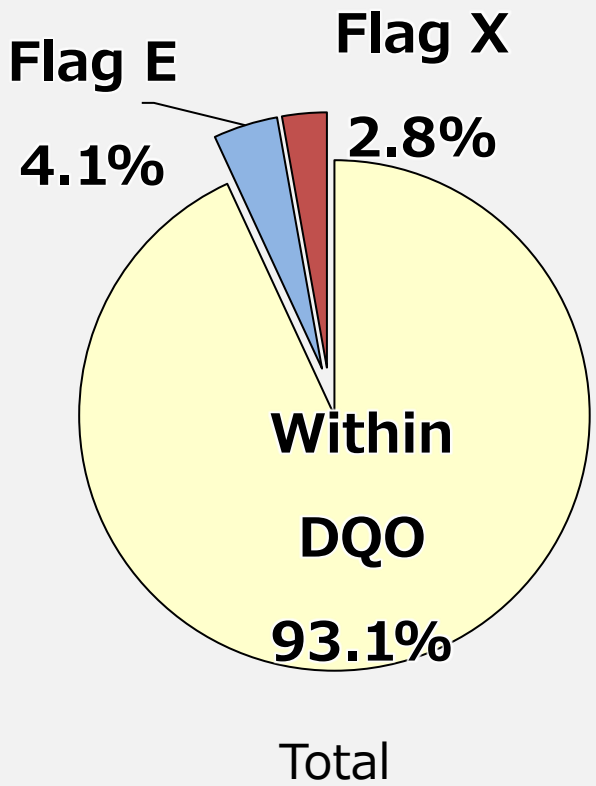
No Flag : Within $\pm 15\%$ (DQO)

Flag E : Over the DQO more than $\pm 15\%$ and within $\pm 30\%$

Flag X : Over the DQO more than $\pm 30\%$

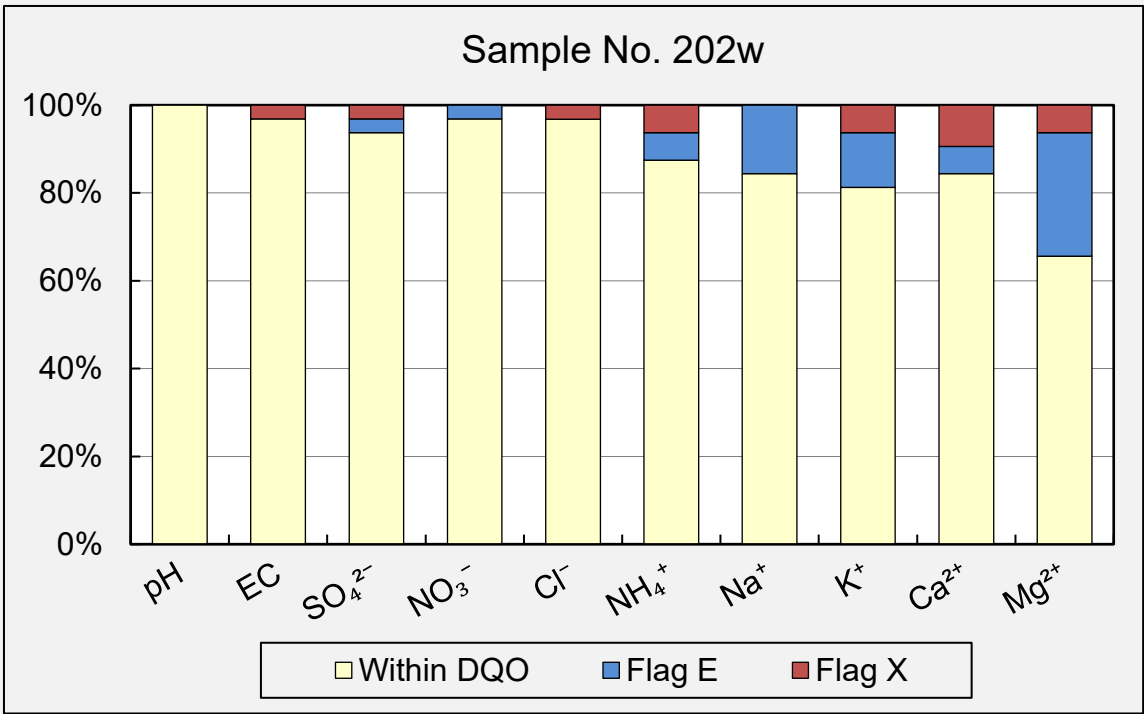
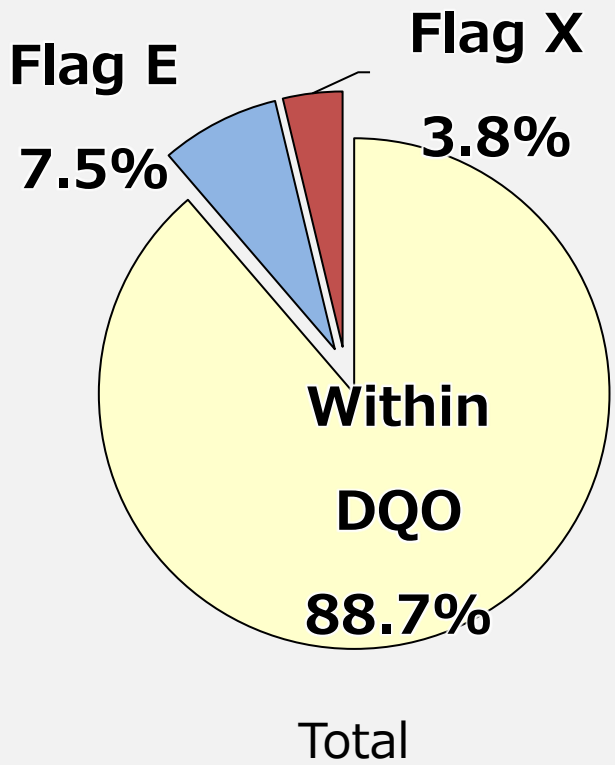
→ Compared to **prepared values**

Data Evaluation based on DQO for No. 201w



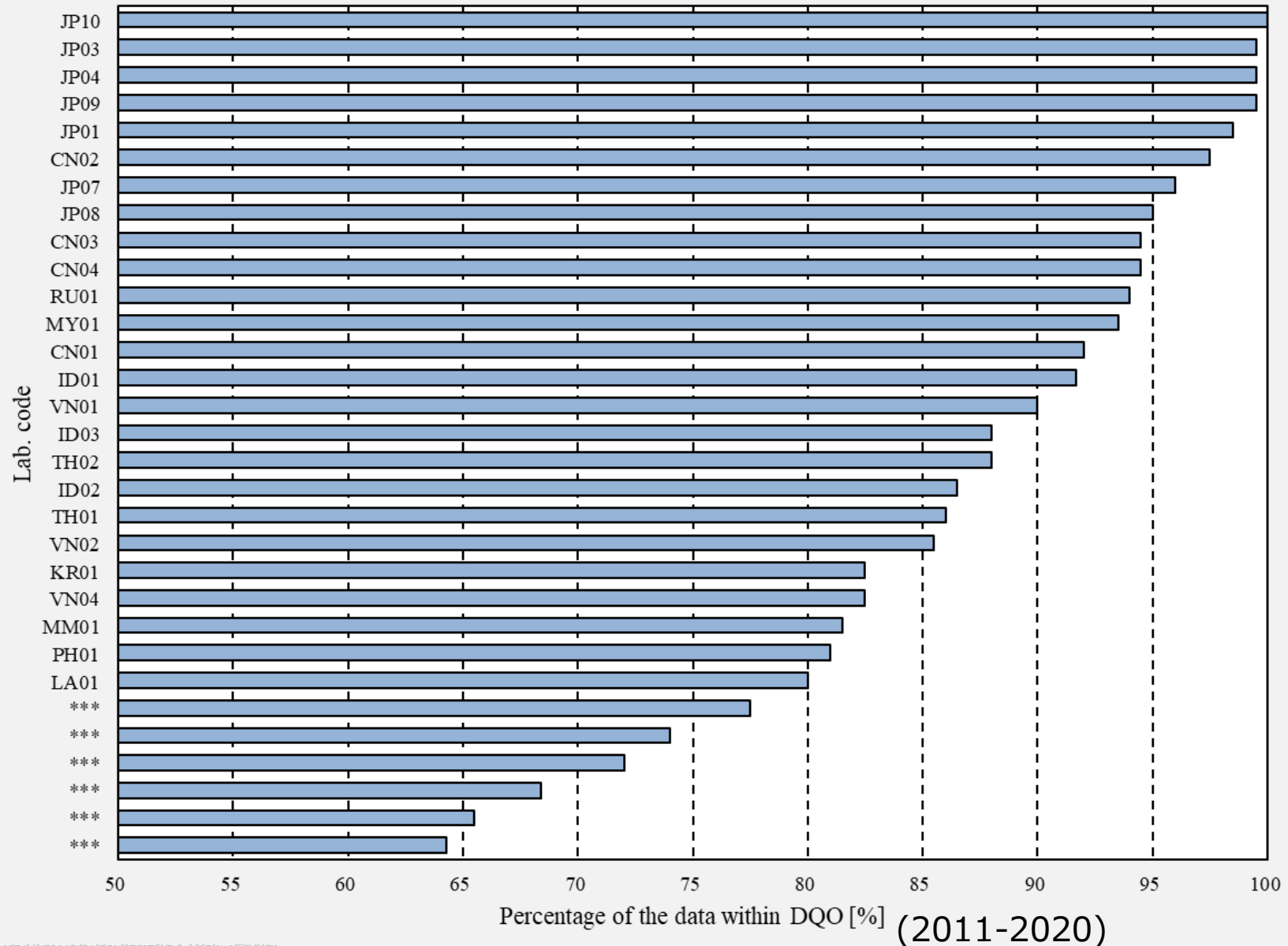
Percentage of flagged data

Data Evaluation based on DQO for No. 202w



Percentage of flagged data

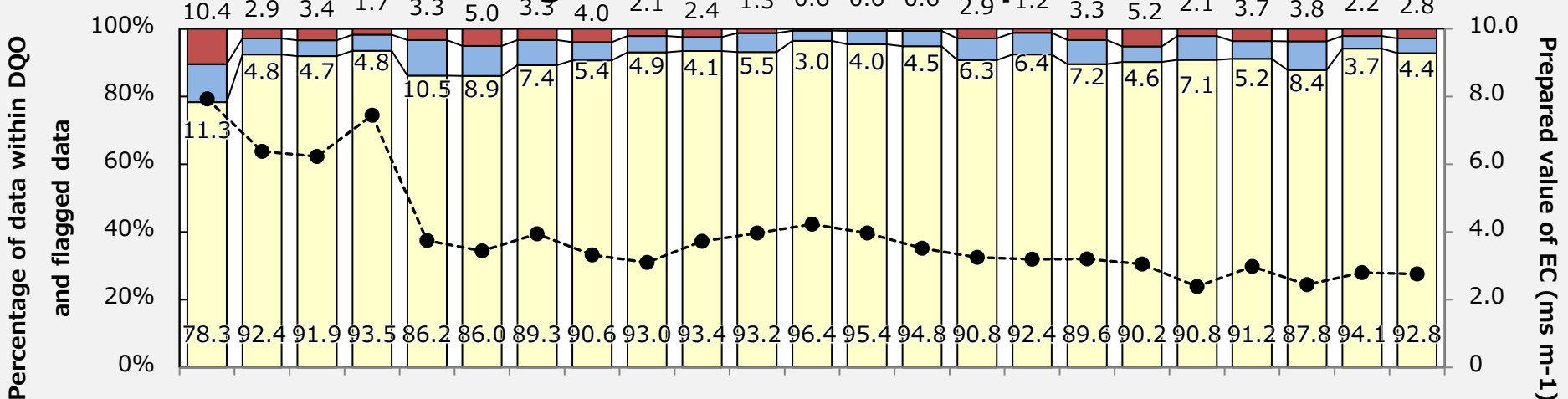
Percentage of the data within DQO



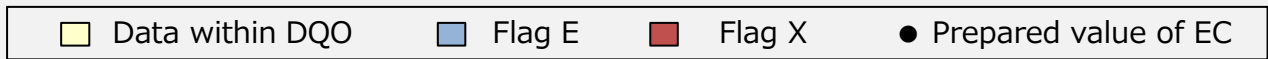
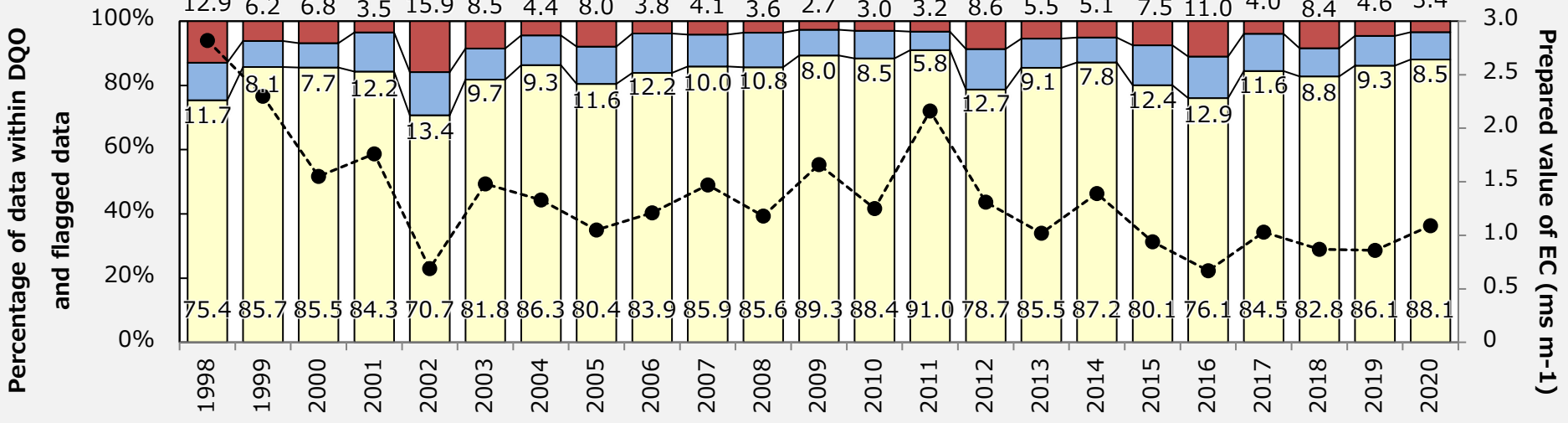
Lab. code is indicated as "***" in case that percentage of the data within DQO is below 80%.

Comparison with past surveys

<High concentration samples>



<Low Concentration samples>



Re-analysis

- NC asked participant laboratories to re-analyze artificial rainwater samples and submit the results.
- NC will analyze condition of laboratory, chromatograms and calibration curves etc. and will provide technical guidance.

**Thank you for
your attention.**



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