

**Dongjiang Water Quality for the Period of April 2018 - March 2019
as received in Hong Kong at Muk Wu Raw Water Pumping Station**

Points to Note:

- The Guangdong authorities commenced the construction of the Dong-shen dedicated aqueduct from Dongjiang Taiyuan to the Shenzhen Reservoir in 2000. Dongjiang water is delivered via the dedicated aqueduct and Shenzhen Reservoir to Hong Kong. Since its commissioning in 2003, the quality of the Dongjiang water supplied to Hong Kong has significantly improved.
- Under the current Dongjiang water supply agreement, the Guangdong authorities are dedicated to maintaining the quality of the Dongjiang water supplied to Hong Kong to meet the national standard set out for Type II standard (applicable to the abstraction for human consumption in first class protection area) in the "Environmental Quality Standards for Surface Water (GB3838-2002)".
- According to the international practice, compliance in water quality of the Dongjiang water supplied to Hong Kong is based on the benchmarking of the annual average of the monitoring data against the standard values. There might be occasional deviations of certain water quality parameters of the Dongjiang water supplied to Hong Kong from the standard values of GB3838-2002 Type II standard. For instance, from June to September of 2018, there were flood discharges from Shenzhen Sha Wan River due to heavy rainstorms, thus leading to deviations of certain water quality parameters of the Dongjiang water supplied to Hong Kong in a short period of time. However, the received Dongjiang water quality was still within the treatment capability of water treatment works of the Water Supplies Department (WSD). In fact, all raw water including Dongjiang water has to go through a series of stringent treatment processes at water treatment works of the WSD, including filtration and disinfection, prior to distribution to consumers. During this period, the chemical, bacteriological and radiological qualities of the treated water fully complied with the Hong Kong Drinking Water Standards. For details, please refer to the information on drinking water quality data.
- All samples for monitoring the quality of the Dongjiang water supplied to Hong Kong were taken at the Muk Wu Raw Water Pumping Station.
- The quality of the Dongjiang water supplied to Hong Kong for this period complied with the national standard set out for Type II standard in the "Environmental Quality Standards for Surface Water (GB3838-2002)".

Parameters	Unit	Monitoring Data (04/2018 - 03/2019)			GB3838-2002 Type II Standard Value	Compliance (Please see general points above)
		Minimum	Maximum	Average		
pH	pH	7.2	8.0	7.5	6 - 9	✓
Dissolved Oxygen	mg/L	4.9	10.0	7.6	≥ 6	✓
Permanganate Index	mg/L	1	2	2	≤ 4	✓
Chemical Oxygen Demand (COD)	mg/L	< 5	14	6	≤ 15	✓
5-Day Biochemical Oxygen Demand (BOD ₅)	mg/L	< 2.0	2.5	< 2.0	≤ 3	✓
Ammoniacal Nitrogen	mg/L	< 0.02	0.18	0.04	≤ 0.5	✓
Total Phosphorus (as P)	mg/L	0.019	0.097	0.054	≤ 0.1	✓
Copper	mg/L	< 0.003	< 0.003	< 0.003	≤ 1.0	✓
Zinc	mg/L	< 0.01	< 0.01	< 0.01	≤ 1.0	✓
Fluoride (as F ⁻)	mg/L	0.16	0.28	0.22	≤ 1.0	✓
Selenium	mg/L	< 0.003	< 0.003	< 0.003	≤ 0.01	✓
Arsenic	mg/L	0.001	0.002	0.002	≤ 0.05	✓
Mercury	mg/L	< 0.00005	< 0.00005	< 0.00005	≤ 0.00005	✓
Cadmium	mg/L	< 0.001	< 0.001	< 0.001	≤ 0.005	✓
Chromium (VI)	mg/L	< 0.001 (Note 1)	< 0.001 (Note 1)	< 0.001 (Note 1)	≤ 0.05	✓
Lead	mg/L	< 0.001	0.002	< 0.001	≤ 0.01	✓
Cyanide	mg/L	< 0.01	< 0.01	< 0.01	≤ 0.05	✓
Volatile Phenols	mg/L	< 0.001	< 0.001	< 0.001	≤ 0.002	✓
Petroleum Hydrocarbons	mg/L	< 0.013	< 0.013	< 0.013	≤ 0.05	✓
Anionic Surfactants	mg/L	< 0.1	< 0.1	< 0.1	≤ 0.2	✓

Parameters	Unit	Monitoring Data (04/2018 - 03/2019)			GB3838-2002 Type II Standard Value	Compliance (Please see general points above)
		Minimum	Maximum	Average		
Sulphides	mg/L	< 0.05	< 0.05	< 0.05	≤ 0.1	✓
Faecal Coliforms	no./L	0 (Note 2)	60,000 (Note 2)	950 (Note 2)	≤ 2,000	✓
Sulphate (as SO ₄ ²⁻)	mg/L	10	21	14	≤ 250	✓
Chloride (as Cl ⁻)	mg/L	7	14	10	≤ 250	✓
Nitrate (as N)	mg/L	1.2	2.2	1.6	≤ 10	✓
Iron	mg/L	0.03	0.21	0.05	≤ 0.3	✓
Manganese	mg/L	< 0.01	0.47	0.03	≤ 0.1	✓
Benzo[a]pyrene	mg/L	< 2.0 x 10 ⁻⁶	< 2.0 x 10 ⁻⁶	< 2.0 x 10 ⁻⁶	≤ 2.8 x 10 ⁻⁶	✓

Notes:

(1) Analytical results for chromium(III) and chromium(VI).

(2) Analytical result for *E. coli*.