

ISTANBUL WATER QUALITY REPORT (FEBRUARY 2017)

| Parametre | Turkish Standards | World Health Organization | Environment Protection Agency (EPA) | Europe Community | TREATMENT PLANT WATER QUALITY AVERAGE VALUES | | | | |
|---|-------------------|---------------------------|-------------------------------------|------------------|--|----------|-----------|----------|------------|
| | TS 266 2005 | (WHO) 2011 | (EPA) 2008 | (EC) 1998 | B.çekmece | İkitelli | Kağıthane | Ömerli | Cumhuriyet |
| Turbidity (NTU) | 1,0 | 5,0 | 1,0 | 1,0 | 0,19 | 0,22 | 0,12 | 0,24 | 0,19 |
| PRIMARY STANDARDS (MICROBIOLOGICAL), cfu/100 mL | | | | | | | | | |
| E.coli | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Enterococci | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | 0 |
| Coliform Bacteria | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRIMARY STANDARDS (DISINFECTION BY-PRODUCTS), µg/L | | | | | | | | | |
| Total Trihalomethanes | 100 | 460 | 80 | 100 | 42,3 | 17,6 | 10,8 | 16,8 | 24,1 |
| Bromate | 3 | 10 | 10 | 10 | < 2,0 | < 2,0 | < 2,0 | < 2,0 | < 2,0 |
| PRIMARY STANDARDS (INORGANIC CHEMICALS), mg/L | | | | | | | | | |
| Aluminium | 0,200 | 0,100 | 0,200 | 0,200 | 0,037 | 0,041 | 0,018 | 0,046 | 0,013 |
| Arsenic | 0,01 | 0,01 | 0,01 | 0,01 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Boron | 1,0 | 2,4 | - | 1,0 | 0,070 | 0,018 | 0,032 | 0,023 | 0,031 |
| Nickel | 0,02 | 0,02 | - | 0,02 | 0,004 | 0,001 | 0,002 | 0,001 | 0,002 |
| Barium | - | 0,7 | 2,0 | - | 0,053 | 0,026 | 0,027 | 0,032 | 0,021 |
| Cadmium | 0,005 | 0,003 | 0,005 | 0,005 | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 |
| Chromium | 0,05 | 0,05 | 0,10 | 0,05 | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 |
| Bromide | - | - | - | - | 0,04 | 0,02 | 0,03 | 0,04 | < 0,01 |
| Fluoride | 1,5 | 1,5 | 2,0 | 1,5 | 0,13 | 0,05 | 0,05 | 0,04 | 0,06 |
| Cyanide | 0,05 | 0,07 | 0,20 | 0,05 | < 0,02 | < 0,02 | < 0,02 | < 0,02 | < 0,02 |
| Lead | 0,01 | 0,01 | 0,015 | 0,010 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Mercury | 0,001 | 0,001 | 0,002 | 0,001 | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 |
| Nitrate | 50 | 50 | 45 | 50 | 9,7 | 2,8 | 3,7 | 4,2 | 6,0 |
| Selenium | 0,01 | 0,01 | 0,05 | 0,01 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 | < 0,0003 |
| Silver | - | 0,10 | 0,10 | - | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 |
| Antimony | 0,005 | 0,020 | 0,006 | 0,005 | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 | < 0,0002 |
| Berillium | -- | -- | 0,004 | - | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 | < 0,0001 |
| SECONDARY STANDARDS-AESTHETIC STANDARDS (mg/L) | | | | | | | | | |
| Chloride | 250 | 250 | 250 | 250 | 80 | 39 | 62 | 23 | 53 |
| Color (PC units) | 20 | 15 | 15 | - | < 2,0 | < 2,0 | < 2,0 | < 2,0 | < 2,0 |
| Copper | 2,0 | 2,0 | 1,0 | 2,0 | < 0,001 | < 0,001 | < 0,001 | < 0,001 | < 0,001 |
| Iron | 0,2 | 0,3 | 0,3 | 0,2 | 0,013 | < 0,005 | < 0,005 | 0,005 | 0,009 |
| Manganese | 0,05 | 0,1 | 0,05 | 0,05 | 0,003 | < 0,002 | 0,002 | 0,002 | < 0,002 |
| Taste-Odor Causing Geosmin Compounds ng/L MIB | - | - | - | - | 2,1 | 1,8 | 2,0 | 1,9 | 1,9 |
| pH | 6,5-9,5 | 6,5 - 8,0 | 6,5 - 8,5 | 6,5 - 9,5 | 7,41 | 7,41 | 6,97 | 7,15 | 6,80 |
| Sulphate | 250 | 500 | 250 | 250 | 90,3 | 44,6 | 82,7 | 42,2 | 36,0 |
| Total Dissolved Solids | - | 1000 | 500 | - | 357 | 204 | 258 | 178 | 279 |
| Zinc | - | 3,0 | 5,0 | - | < 0,001 | < 0,001 | 0,001 | 0,017 | 0,149 |
| ADDITIONAL PARAMETERS (mg/L) | | | | | | | | | |
| Calcium | - | 300 | - | - | 64,7 | 45,3 | 49,9 | 40,1 | 41,5 |
| Hardness as (CaCO ₃) | - | 500 | - | - | 205 | 162 | 165 | 129,7 | 126 |
| Magnesium | - | - | - | - | 13,1 | 5,6 | 9,4 | 6,7 | 6,8 |
| Potassium | - | - | - | - | 4,1 | 2,2 | 2,8 | 2,4 | 2,3 |
| Sodium | 200 | 200 | - | 200 | 47,8 | 18,0 | 33,1 | 15,9 | 14,2 |
| Residual Chlorine | - | 5,0 | 4,0 | - | 1,17 | 1,10 | 1,41 | 1,33 | 1,60 |
| Ammonia | 0,5 | 1,5 | - | 0,5 | < 0,03 | < 0,03 | < 0,03 | < 0,03 | < 0,03 |

1 -Turbidity, pH, chloride, total hardness, and residual chlorine values are the monthly average values of the plant operation laboratory.

2 - Other parameters are the monthly average values performed at the Brunch Directorate of Clean Water Laboratory.

3 - The chlorine value shown here are the values of the end product, and the free chlorine level decreases over time.

This value is chosen to maintain a free chlorine at all points of the supply, and the free chlorine concentration level tested within the supply varies between 0.2 and 0.5 mg/L.