


CSIR WATER QUALITY AUDIT RESULTS OF WATER SUPPLIED BY RAND WATER

| CSIR randomly selected sample point | D-WELTE_N | D-WHITE_N | D-BRAKFON | D_GEZ | D_KWAGGA | |
|--|---|--|-----------|---------------|----------------------------|--|
| Sampling area | Johannesburg | Johannesburg | Tshwane | Johannesburg | Tshwane | |
| Sampling date : 09/03/2017 | | | | | Report date:05/04/2017 | |
| Parameter | Units of measure | Specifications (based on SANS241: 2015) | | No of results | Achieved compliance levels | |
| | | Required compliance | | | Class I | |
| | | 99% Class I | | | | |
| SPECIFICATIONS | | | | | | |
| Chemical and Physical properties | | | | | | |
| Colour | (mg / l as Pt) | < 15 | | 5 | 100.00% | |
| Conductivity | (mS / m) | < 170 | | 5 | 100.00% | |
| pH | (pH units) | ≥ 5.0 to ≤ 9.5 | | 5 | 100.00% | |
| Turbidity | (NTU) | < 5 | | 5 | 100.00% | |
| Total Dissolved Solids | (mg / l) | < 1200 | | 5 | 100.00% | |
| Taste | (TTN) | < 5 | | 5 | 100.00% | |
| Odour | (TON) | < 5 | | 5 | 100.00% | |
| Organic Determinants | | | | | | |
| Total Trihalomethanes | (ug / l) | <1 | | 5 | 100.00% | |
| Phenols as C ₆ H ₅ OH | (ug / l) | < 10 | | 5 | 100.00% | |
| Dissolved Organic Carbon | (mg / l) | N/A | | 5 | 100.00% | |
| Micro Elements | | | | | | |
| Antimony | (µg / l as Sb) | < 20 | | 5 | 100.00% | |
| Boron | (µg / l as B) | 2400 | | 5 | 100.00% | |
| Barium | (µg / l as Ba) | 700 | | 5 | 100.00% | |
| Arsenic | (µg / l as As) | 10 | | 5 | 100.00% | |
| Cadmium | (µg / l as Cd) | 3 | | 5 | 100.00% | |
| Chromium (Total) | (µg / l as Cr) | < 50 | | 5 | 100.00% | |
| Cobalt | (µg / l as Co) | N/A | | 5 | 100.00% | |
| Cyanide (Recoverable) | (µg / l as CN) | < 200 | | 5 | 100.00% | |
| Lead | (µg / l as Pb) | < 10 | | 5 | 100.00% | |
| Mercury | (µg / l as Hg) | < 6 | | 5 | 100.00% | |
| Nickel | (µg / l as Ni) | < 70 | | 5 | 100.00% | |
| Selenium | (µg / l as Se) | < 40 | | 5 | 100.00% | |
| Uranium | (µg / l as U*) | <30 | | 5 | | |
| Vanadium | (µg / l as V) | N/A | | 5 | 100.00% | |
| Macro Elements & Miscellaneous Determinants | | | | | | |
| Aluminium | (mg / l as Al) | < 0.3 | | 5 | 100.00% | |
| Ammonia | (mg / l as N) | < 1.5 | | 5 | 100.00% | |
| Calcium | (mg / l as Ca) | N/A | | 5 | 100.00% | |
| Chloride | (mg / l as Cl) | < 300 | | 5 | 100.00% | |
| Copper | (mg / l as Cu) | < 2 | | 5 | 100.00% | |
| Fluoride | (mg / l as F) | < 1.5 | | 5 | 100.00% | |
| Iron | (mg / l as Fe) | < 2 | | 5 | 100.00% | |
| Magnesium | (mg / l as Mg) | N/A | | 5 | 100.00% | |
| Manganese | (mg / l as Mn) | < 0.4 | | 5 | 100.00% | |
| Nitrate | (mg / l as N) | <11 | | 5 | 100.00% | |
| Nitrite | (mg / l as N) | <0.9 | | 5 | 100.00% | |
| Nitrate & Nitrite | (mg / l as N) | < 1 | | 5 | 100.00% | |
| Potassium | (mg / l as K) | N/A | | 5 | 100.00% | |
| Sodium | (mg / l as Na) | < 200 | | 5 | 100.00% | |
| Sulphate | (mg / l as SO ₄) | < 500 | | 5 | 100.00% | |
| Zinc | (mg / l as Zn) | < 5 | | 5 | 100.00% | |
| Microbiological | | | | | | |
| E. coli | (cfu per 100 ml) | minimum of 99% of the original results shall be non-detected | | 5 | 100.0% | |
| Other Determinants as required by supply contract | | | | | | |
| Free chlorine and monochloramine | (mg / l) | ≥ 0.2 | | 5 | 100.0% | |
| Notes : | | | | | | |
| (1) Specification date of effect : March 2015 | | | | | | |
| CSIR representative: | Name: MG Kirkpatrick | | | | | |
| | Title: Laboratory Supervisor | | | | | |
| | Contact number: 012-841 2261 | | | | | |
| Signature: |  | | | | | |