

| SERVIÇOS MUNICIPALIZADOS DE PENICHE | | DADOS DO CONTROLE DA QUALIDADE DA ÁGUA PARA CONSUMO HUMANA NO CONCELHO DEPENICHE | | | | | | | 3º Trimestre | | |
|--|---|--|------------------------|--------------------------|-----------------------------------|------------------------|-------------------------------|--------------------|--------------|------------------------------|------------------------------|
| | | Zona de Abastecimento: ZA1_TC_2022 | | | | | | | 2022 | | |
| Em conformidade com o Decreto-Lei n.º 306/2007, de 27 de agosto, alterado pelo Decreto-Lei n.º 152/2007, de 7 de dezembro, procedeu-se à verificação da qualidade da água da rede pública, através de análises periódicas na torneira do consumidor, segundo o Programa de Controle da Qualidade da Água (PCQA) aprovado pela autoridade competente (ERSAR). | | | | | | | | | | | |
| Grupo | Parâmetro | Nº Amostras PCQA | | | Unidades | Valor Paramétrico (VP) | Valor Recomendado (Indicador) | Resultados Obtidos | | Nº amostras superiores ao VP | Análises que cumpri o VP (%) |
| | | Nº Análises Previstas | Nº Análises Realizadas | % de Análises Realizadas | | | | Máximos | Mínimos | | |
| CR1 | Bactérias coliformes | 6 | 6 | 100 | UFC/100mL | 0 | --- | 0 | 0 | 0 | 100 |
| | Cloro residual livre | 6 | 6 | 100 | mg/L Cl ₂ | --- | ≥ 0,2 e ≤ 0,6 | 0,7 | <0,16 | --- | 100 |
| | E. coli | 6 | 6 | 100 | UFC/100mL | 0 | --- | 0 | 0 | 0 | 100 |
| | Alumínio | 3 | 3 | 100 | µg/L Al | 200 | --- | 46 | 40,4 | 0 | 100 |
| | Amónio | 3 | 3 | 100 | mg/L NH ₄ ⁺ | 0,50 | --- | <0,05 | <0,05 | 0 | 100 |
| | Cheiro | 3 | 3 | 100 | Factor diluição | 3 | --- | <1 | <1 | 0 | 100 |
| | Clostridium perfringens (incluindo esporos) | 3 | 3 | 100 | UFC/100mL | 0 | --- | 0 | 0 | 0 | 100 |
| | Condutividade | 3 | 3 | 100 | µS/cm a 20°C | 2500 | --- | 872 | 792 | 0 | 100 |
| | Carbono orgânico total (COT) | 3 | 3 | 100 | mg/L C | SAA | --- | 3,34 | 2,99 | 0 | 100 |
| | Cor | 3 | 3 | 100 | mg/L PtCo | 20 | --- | <3,0 | <3,0 | 0 | 100 |
| | Enterococos | 3 | 3 | 100 | UFC/100mL | 0 | --- | 0 | 0 | 0 | 100 |
| | Ferro | 3 | 3 | 100 | µg/L Fe | 200 | --- | <20,0 | <20,0 | 0 | 100 |
| | Manganês | 3 | 3 | 100 | µg/L Mn | 50 | --- | <4,0 | <4,0 | 0 | 100 |
| | Nitratos | 3 | 3 | 100 | mg/L NO ₃ | 50 | 25 | 1,9 | 1,1 | 0 | 100 |
| | Nitritos | 3 | 3 | 100 | mg/L NO ₂ | 0,1 | --- | <0,10 | <0,10 | 0 | 100 |
| CR2 | Número total de Germes a 22°C | 3 | 3 | 100 | UFC/mL | SAA | 100 | 0 | 0 | 0 | 100 |
| | Número total de Germes a 37°C | 3 | 3 | 100 | UFC/mL | SAA | 20 | 0 | 0 | 0 | 100 |
| | Oxidabilidade | 3 | 3 | 100 | mg/L O ₂ | 5 | --- | 3,1 | 1,6 | 0 | 100 |
| | pH | 3 | 3 | 100 | Unidades de pH | ≥ 6,5 e ≤ 9,5 | --- | 8,1 | 7,5 | 0 | 100 |
| | Sebor | 3 | 3 | 100 | Factor diluição | 3 | --- | <1 | <1 | 0 | 100 |
| | Trihalometanos Total | 3 | 3 | 100 | µg/L | --- | --- | 110 | 78,3 | 1 | 66,7 |
| | Bromofórmio | 3 | 3 | 100 | µg/L | --- | --- | 62,7 | 44,6 | --- | 100 |
| | Cloroformo | 3 | 3 | 100 | µg/L | --- | --- | 2,16 | 0,98 | --- | 100 |
| | Bromodlorometano | 3 | 3 | 100 | µg/L | --- | --- | 8,83 | 5,51 | --- | 100 |
| | Dibromodlorometano | 3 | 3 | 100 | µg/L | --- | --- | 36,5 | 25,5 | --- | 100 |
| | Turvação | 3 | 3 | 100 | NTU | ≤ 1 | --- | <0,20 | <0,20 | 0 | 100 |
| | 1,2-diclorometano | 0 | 0 | --- | µg/L | 3 | --- | --- | --- | 0 | --- |
| | Afta total | 0 | 0 | --- | Bq/L | 0,1 | --- | --- | --- | 0 | --- |
| | Antimónio | 0 | 0 | --- | µg/L Sb | 5 | --- | --- | --- | 0 | --- |
| | Ársénio | 0 | 0 | --- | µg/L As | 10 | --- | --- | --- | 0 | --- |
| Benzeno | 0 | 0 | --- | µg/L | 1 | --- | --- | --- | 0 | --- | |
| Benzo(a)pireno | 0 | 0 | --- | µg/L | 0,01 | --- | --- | --- | 0 | --- | |
| Boro | 0 | 0 | --- | mg/L B | 1 | --- | --- | --- | 0 | --- | |
| Bromatos | 0 | 0 | --- | µg/L BrO ₃ | 10 | --- | --- | --- | 0 | --- | |
| Cádmio | 0 | 0 | --- | µg/L Cd | 5 | --- | --- | --- | 0 | --- | |
| Cálcio | 0 | 0 | --- | mg/L Ca | --- | <100 | --- | --- | --- | --- | |
| Chumbo | 0 | 0 | --- | µg/L Pb | 10 | --- | --- | --- | 0 | --- | |
| Cianetos | 0 | 0 | --- | µg/L CN | 50 | --- | --- | --- | 0 | --- | |
| Cloretos | 0 | 0 | --- | mg/L Cl | 250 | --- | --- | --- | 0 | --- | |
| Cobre | 0 | 0 | --- | mg/L Cu | 2,0 | --- | --- | --- | 0 | --- | |
| Crómio | 0 | 0 | --- | µg/L Cr | 50 | --- | --- | --- | 0 | --- | |
| Dose Indicativa total | 0 | 0 | --- | mSv/ano | 0,1 | --- | --- | --- | 0 | --- | |
| Dureza total | 0 | 0 | --- | mg/L CaCO ₃ | --- | ≥ 150 e ≤ 500 | --- | --- | --- | --- | |
| Fluoretos | 0 | 0 | --- | mg/L F | 1,5 | --- | --- | --- | 0 | --- | |
| Hidrocarbonetos Aromáticos Policíclicos (HAP) | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Benzo(b)fluoranteno | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Benzo(g,h,i)perileno | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Benzo(k)fluoranteno | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Indeno(1,2,3-cd)pireno | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Magnésio | 0 | 0 | --- | mg/L Mg | --- | ≤ 50 | --- | --- | --- | --- | |
| Mercurio | 0 | 0 | --- | µg/L Hg | 1 | --- | --- | --- | 0 | --- | |
| Níquel | 0 | 0 | --- | µg/L Ni | 20 | --- | --- | --- | 0 | --- | |
| Pesticidas totais | 0 | 0 | --- | µg/L | 0,5 | --- | --- | --- | 0 | --- | |
| Alacloro | 0 | 0 | --- | µg/L | --- | --- | --- | --- | --- | --- | |
| Bentazona | 0 | 0 | --- | µg/L | --- | --- | --- | --- | --- | --- | |
| Clorpirifos | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,0300 | <0,0300 | 0 | 100 | |
| Dimetoato | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,030 | <0,030 | 0 | 100 | |
| Omectato | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,030 | <0,030 | 0 | 100 | |
| Diurão | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,030 | <0,030 | 0 | 100 | |
| Imidaclopride | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,030 | <0,030 | 0 | 100 | |
| Isoproturão | 0 | 0 | --- | µg/L | --- | --- | --- | --- | --- | --- | |
| Linurão | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| MCPA | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Metaxil / Metaxil-M | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Metolaclo | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,030 | <0,030 | 0 | 100 | |
| Oxamit | 1 | 1 | 100 | µg/L | 0,1 | --- | <0,050 | <0,050 | 0 | 100 | |
| Simazina | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Desetilsimazina | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Terbutilazina | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Desetilterbutilazina | 0 | 0 | --- | µg/L | 0,1 | --- | --- | --- | 0 | --- | |
| Selénio | 0 | 0 | --- | µg/L Se | 10 | --- | --- | --- | 0 | --- | |
| Sódio | 0 | 0 | --- | mg/L Na | 200 | --- | --- | --- | 0 | --- | |
| Sulfatos | 0 | 0 | --- | mg/L SO ₄ | 250 | --- | --- | --- | 0 | --- | |
| Tetracloroeteno | 0 | 0 | --- | µg/L | 10 | --- | --- | --- | 0 | --- | |
| Polónio-210 | 0 | 0 | --- | Bq/L | --- | 0,1 | --- | --- | --- | --- | |
| Rádio-226 | 0 | 0 | --- | Bq/L | --- | 0,5 | --- | --- | --- | --- | |
| Urânio-234 | 0 | 0 | --- | Bq/L | --- | 2,8 | --- | --- | --- | --- | |
| Urânio-238 | 0 | 0 | --- | Bq/L | --- | 3 | --- | --- | --- | --- | |
| Tricloroetileno | 0 | 0 | --- | µg/L | 10 | --- | --- | --- | 0 | --- | |
| TOTAL | | 94 | 94 | 100 | | | | | | | |

Legenda

- >/- Valor superior ou inferior ao Limite de Quantificação
- SAA Sem alteração anormal
- Abc Valor superior ao limite permitido por lei (valor paramétrico)
- Abc Valor superior / inferior ao recomendado por lei (parâmetros indicadores)
- a) A realizar apenas quando o resultado dos parâmetros "alfa total" >0,10 Bq/L e "Dose Indicativa total" > 0,1 mSv

| Metodologia de averiguação de causas relativas a incumprimentos: | Causas relativas a incumprimentos: | Medidas corretivas implementadas: |
|---|---|---|
| Realização de análises de verificação, no Ponto de Amostragem onde se deteiu o incumprimento, no ponto de controlo operacional correspondente, na Rede de Abastecimento, e em dois pontos de amostragem adicionais, em Torneiras do Consumidor, na mesma Zona de Abastecimento. | O2 - Contaminação na origem de água bruta | F- Outra: Não foram tomadas medidas correctivas adicionais às implementadas do antecedente - optimizações no processo de tratamento (etapas de pré-oxidação e coagulação-floculação). Continuamos a investigar a origem da contaminação que provoca a formação destes subprodutos bromados. |

O Presidente do Conselho de Administração, O Diretor Delegado, Técnico Responsável

Henrique Bettina Batista Antunes

Samuel Dias (engº)

Mário Reis (engº)