



## **Water Quality Summary For ALDERNEY NORTH**

### **Monitoring Water Quality**

The Government requires all water companies to comply with the Water Supply (Water Quality) Regulations. These regulations are based upon the European Drinking Water Directive and some even more strict UK National standards.

The Regulations dictate how water quality must be monitored; they stipulate the number of samples to be taken and where they should be taken from. They also tell us what parameters we must look for in these samples, including certain characteristics, elements or substances.

South West Water's region is divided into a number of supply zones. A Water Supply zone is defined in order to enable the mandatory sampling programme to be undertaken at the correct frequency per populous. Each zone is a geographical area containing no more than 100,000 permanent residents.

### **Water Quality Parameters and their Standards**

All of the parameters have standards associated with them, which incorporate a large safety margin in order to protect public health. The standard is usually a maximum value, but some minimum levels are set.

Most of the standards are mandatory and are referred to as a 'Prescribed Concentration or Value' (PCV). Some additional standards called 'Indicator Parameters' are set in order to monitor water treatment and distribution processes.

Any sample result which fails to meet with a standard requires thorough investigation; a detailed assessment is made and prompt remedial action is taken to prevent reoccurrence. This assessment is reported to the industry's independent regulator; The Drinking Water Inspectorate (DWI).



## Summary of Water Quality

This report summarises the water quality in your Supply Zone. A report detailing all summary test results is available by request

### Supply Zone Information Summary

Zone Name: **ALDERNEY NORTH**

Zone Id: **ZB02**

Population: **90207**

1. Parishes Supplied in the Supply Zone

2. Water Treatment Works Supplying the whole or part of the Supply Zone;

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3. Service Reservoirs located within the Supply Zone;

Service Reservoirs provide short-term storage for treated water enabling continuity of supply during peak demand and as a provision of emergency use such as fire fighting.

4. Health Care Professionals associated with the Supply Zone;

**Bournemouth Borough Council Environmental Health &  
Consumer Protection, Poole Borough Council Consumer  
Protection**

## Summary Of Test Results for ZB02


Period: 01/01/2019 to 31/12/2019

| Parameter                | Unit | PCV | Number of Samples Taken in Period | % Exceeding PCV | Min    | Mean  | Max  | Explanation of Standard  |
|--------------------------|------|-----|-----------------------------------|-----------------|--------|-------|------|--|
| Aluminium                | ug/l | 200 | 78                                | 0               | 2.50   | 4.95  | 7    | Occurs naturally in some water sources and usually removed during water treatment. Also contained within products which may be used in water treatment, but removed in the process.  |
| Chlorine Free (On Site)  | mg/l |     | 243                               | 0               | 0.01   | 0.03  | 0.20 | Chlorine is added to water supplies to ensure the absence of harmful bacteria. The level is kept as low as possible to minimise taste or odour at the customer tap. Free chlorine is the concentration of chlorine available for disinfection. |
| Chlorine Total (On Site) | mg/l |     | 243                               | 0               | 0.04   | 0.22  | 0.42 | Total chlorine is the total concentration of chlorine added to the water.  |
| Fluoride                 | mg/l | 1.5 | 12                                | 0               | 0.0850 | 0.10  | 0.11 | Traces occur in many natural water sources. Water Companies add fluoride to supplies if instructed to do so by the Health Authority. South West Water do not currently add fluoride to any supplies.   |
| Hardness Total as Ca     | mg/l |     | 5                                 | 0               | 85.20  | 89.18 | 97   | Measure of the concentration of calcium and magnesium salts in water often referred to as 'limescale'.   |

| Parameter      | Unit     | PCV        | Number of Samples Taken in Period | % Exceeding PCV | Min    | Mean  | Max     | Explanation of Standard  |
|----------------|----------|------------|-----------------------------------|-----------------|--------|-------|---------|--|
| Iron           | ug/l     | 200        | 78                                | 0               | 4      | 7.28  | 25.90   | Present naturally in many waters and usually removed during water treatment. Iron in water supplies may derive from corroded pipe work. Also contained within products which may be used in water treatment, but removed in the process.   |
| Lead           | ug/l     | 10         | 11                                | 0               | 0.05   | 0.36  | 1.68    | Rarely present in water sources but may be present as a result of lead service pipes and plumbing, particularly in older properties. If the water supply has a tendency to dissolve lead, companies are required to apply specialist treatment to the water to protect the health of consumers and limit their exposure. |
| Manganese      | ug/l     | 50         | 78                                | 0               | 0.20   | 1.02  | 3.29    | Present naturally in many source waters and usually removed in water treatment.  |
| Nitrate as NO3 | mg/l     | 50         | 78                                | 0               | 2.9150 | 21.22 | 32.2880 | Present naturally in all source waters. Higher concentrations tend to occur where fertilisers are used on land adjacent to abstraction sources. Where necessary, nitrate levels are reduced by specialist water treatment.   |
| pH             | pH units | 6.5 to 9.5 | 80                                | 0               | 7.60   | 7.83  | 8.10    | pH value or hydrogen ion concentration indicates the degree of acidity of the water. pH 7 is neutral, below 7 indicates acidity and above 7 indicates alkalinity. A low pH may result in pipe corrosion. An alkali may be added during treatment to minimise this effect.  |

| Parameter        | Unit     | PCV | Number of Samples Taken in Period | % Exceeding PCV | Min   | Mean  | Max    | Explanation of Standard   |
|------------------|----------|-----|-----------------------------------|-----------------|-------|-------|--------|---|
| Total Pesticides | ug/l     | 0.5 | 15                                | 0               | 0     | 0     | 0.0050 | This group includes herbicides, insecticides and fungicides. Trace pesticides in water sources derive from agricultural and non-agricultural practices. Where necessary, water companies install processes to remove pesticides. This parameter represents the sum of individual pesticides detected. The standard for individual pesticides is 0.1 ug/l. |
| Total THM        | ug/l     | 100 | 11                                | 0               | 24.90 | 31.13 | 46.60  | Formed during the disinfection process by reaction between chlorine and naturally-occurring organic substances. The use of chlorine in water treatment is a very important public health safeguard. Treatment processes are controlled to minimise the production of THMs.  |
| Turbidity        | NTU      | 4   | 80                                | 0               | 0.10  | 0.14  | 0.35   | A quantitative measure of cloudiness. Present in water and controlled by treatment processes. It can also arise from the disturbance of sediment within the water mains. The 4 NTU standard applies at customer taps.   |
| C. perfringens   | no/100ml | 0   | 179                               | 0               | 0     | 0     | 0      | A spore-forming bacterium present in the gut of all warm-blooded animals. Immediate action is taken to investigate and remove their source if detected at an approved supply point.   |

| Parameter            | Unit     | PCV | Number of Samples Taken in Period | % Exceeding PCV | Min | Mean | Max | Explanation of Standard  |
|----------------------|----------|-----|-----------------------------------|-----------------|-----|------|-----|--|
| Coliform             | no/100ml | 0   | 243                               | 0               | 0   | 0    | 0   | Bacteria commonly found in the general environment. The National Standard applies at Service Reservoirs and must be met by 95% of samples taken. Coliforms are an indicator parameter at the customer tap. Immediate action is taken to investigate and remove their source if found at either location. |
| E.coli               | no/100ml | 0   | 243                               | 0               | 0   | 0    | 0   | Bacteria found in the gut of warm-blooded animals. If found in drinking water, immediate action is taken to investigate and eradicate them from the supply   |
| Enterococci          | no/100ml | 0   | 11                                | 0               | 0   | 0    | 0   | Bacteria found in the gut of all warm-blooded animals. They should not be present in drinking water and immediate action is taken to investigate and remove their source. The mandatory European standard applies to samples taken from customer taps.   |
| TVC at 22 for 3 days | no/ml    |     | 242                               | 0               | 0   | 1.60 | 93  | A count including a wide range of micro-organisms which indicate the microbiological quality of water. Not necessarily harmful to health. The presence of an elevated number requires investigation.   |
| TVC at 37 for 2 days | no/ml    |     | 243                               | 0               | 0   | 1.52 | 62  | As above.  |



Reference;

1000 ug (micrograms) = 1 mg (milligram)

1000 mg = 1 g (gram)

1000 g = 1 kg (kilogram)

1000 ml (millilitres) = 1 l (litre)

Therefore;

1 ug/l is 1 microgram per litre

1 mg/l is 1 milligram per litre

NTU - Nephelometric Turbidity Unit

DN - Dilution Number - The Laboratory Panel uses DN as a reporting value, however the standard is 'acceptable to customers and no abnormal change'