

# Analysis Report

Date of Analysis: 01.03.2023  
Analysis No: MSR220530  
Date of Sampling: 19.02.2023 – 12:00

Customer: David Hicks  
Customer ID: 5347  
Tank: reef tank

## Main Parameters

| Parameter       | Measured Value | Ideal Value | Rating |
|-----------------|----------------|-------------|--------|
| Salinity        | 32,1 psu       | 35,0 psu    | ⬇️     |
| Alkalinity (KH) | 7,24 dKH       | 7,50 dKH    | ✅      |

## Main Elements

| Parameter | Measured Value | Ideal Value | Rating |
|-----------|----------------|-------------|--------|
| Calcium   | 402 mg/l       | 404 mg/l    | ✅      |
| Boron     | 3,8 mg/l       | 4,1 mg/l    | ✅      |
| Bromide   | 58 mg/l        | 61,4 mg/l   | ✅      |
| Chloride  | 17922 mg/l     | 17793 mg/l  | ✅      |
| Potassium | 433 mg/l       | 367 mg/l    | ✅      |
| Magnesium | 1350 mg/l      | 1284 mg/l   | ✅      |
| Sodium    | 9493 mg/l      | 9905 mg/l   | ✅      |
| Strontium | 11,3 mg/l      | 7,3 mg/l    | ⬆️     |
| Sulfate   | 2822 mg/l      | 2476 mg/l   | ✅      |

## Trace Elements

| Parameter  | Measured Value | Ideal Value   | Rating |
|------------|----------------|---------------|--------|
| Barium     | 57,92 µg/l     | 10–100 µg/l   | ✅      |
| Chromium   | 0,03 µg/l      | 0,2–0,5 µg/l  | ⬇️     |
| Cobalt     | 0,07 µg/l      | 0,05–0,2 µg/l | ✅      |
| Iron       | 0,48 µg/l      | 0,1–3 µg/l    | ✅      |
| Fluoride   | 0,87 mg/l      | 1,3 mg/l      | ✅      |
| Iodine     | 5,0 µg/l       | 50–70 µg/l    | ⬇️     |
| Copper     | 0,11 µg/l      | 0,2–2 µg/l    | ⬇️     |
| Lithium    | 260 µg/l       | 50–150 µg/l   | ⬆️     |
| Manganese  | 0,07 µg/l      | 0,2–1 µg/l    | ⬇️     |
| Molybdenum | 4,2 µg/l       | 10–15 µg/l    | ⬇️     |
| Nickel     | 0,39 µg/l      | 2–5 µg/l      | ⬇️     |

|          |            |              |    |
|----------|------------|--------------|----|
| Rubidium | 48,4 µg/l  | 90–150 µg/l  | ⬇️ |
| Selenium | 0,023 µg/l | 0,2–0,5 µg/l | ⬇️ |
| Vanadium | 0,51 µg/l  | 2–3 µg/l     | ⬇️ |
| Zinc     | 0,70 µg/l  | 1–3 µg/l     | ⬇️ |
| Tin      | 0,54 µg/l  | 0,05–1 µg/l  | ✅  |
| Caesium  | 1,04 ppb   | 0,3–3 ppb    | ✅  |

## Pollutants

| Parameter | Measured Value | Ideal Value | Rating |
|-----------|----------------|-------------|--------|
| Aluminium | 43,8 µg/l      | < 40 µg/l   | ⬆️     |
| Bismuth   | n.n.           | < 1 µg/l    | ✅      |
| Lead      | n.n.           | < 3 µg/l    | ✅      |
| Mercury   | n.n.           | < 0,5 µg/l  | ✅      |
| Antimony  | 1,196 µg/l     | < 3 µg/l    | ✅      |
| Titan     | n.n.           | < 1 µg/l    | ✅      |
| Cadmium   | 0,015 µg/l     | < 0,5 µg/l  | ✅      |
| Uranium   | 0,445 µg/l     | < 3 µg/l    | ✅      |
| Beryllium | n.n.           | < 0,2 µg/l  | ✅      |
| Arsenic   | 0,489 µg/l     | < 3 µg/l    | ✅      |
| Lanthanum | n.n.           | < 3 µg/l    | ✅      |
| Thallium  | n.n.           | < 0,5 µg/l  | ✅      |
| Gallium   | n.n.           | < 1 ppb     | ✅      |
| Tellurium | 0,087 ppb      | < 0,5 ppb   | ✅      |
| Thorium   | n.n.           | < 0,3 ppb   | ✅      |
| Cerium    | n.n.           | < 0,5 ppb   | ✅      |
| Ruthenium | n.n.           | < 0,1 ppb   | ✅      |
| Neodymium | n.n.           | < 0,1 ppb   | ✅      |

## Nutrients

| Parameter               | Measured Value | Ideal Value   | Rating |
|-------------------------|----------------|---------------|--------|
| Phosphate (photometric) | 0,245 mg/l     | 0,03–0,1 mg/l | ⬆️     |
| Nitrate                 | 26,49 mg/l     | 2–15 mg/l     | ⬆️     |
| Nitrite                 | 0,086 mg/l     | < 0,3 mg/l    | ✅      |
| Silicon                 | 81 µg/l        | 50–250 µg/l   | ✅      |

## Osmose

| Parameter | Measured Value | Ideal Value | Rating |
|-----------|----------------|-------------|--------|
| Copper    | n.n.           | n.n. µg/l   | ✅      |
| Zinc      | n.n.           | n.n. µg/l   | ✅      |
| Silicon   | n.n.           | n.n. µg/l   | ✅      |

- ✓ No action required
- ↗↘ Need for action
- ↑↓ Urgent need for action

n.n Not found  
n.b Not measured

## Interpretation

Hello!

Please enter the above results into the Reef Moonshiner's ICP Assessment tool for a detailed assessment and dosing instructions, which can be found here under this weblink:

<https://www.reefmoonshiners.com/handbook-tools>

All the best,

Christoph

