

Tank

DT

Net size

208 liter

Reason for analysis

Tissue necrosis (fast, RTN)



Created

10/07/2024

Arrived in the laboratory

10/15/2024

Evaluated

10/16/2024



Quality assessment:

The quality of your aquarium water is assessed using the score in the circle. The closer it is to 100, the better the quality. You can also use the bar chart to identify the areas in which problems may occur.

Major elements	75 / 100
Minor elements	89 / 100
Pollutants	98 / 100
Base elements	50 / 100

Results of Salt water

Base elements

Sal. total Salinity	32.59 PSU Ideal value: 35.00 PSU	BELOW NORMAL Attention
KH Carbonate hardness	10.11 °dKH Ideal value: 7.50 °dKH	CRITICALLY HIGH Critical

Major elements

Cl Chloride	18285 mg/l Ideal value: 18099 mg/l	NORMAL Near nature
Na Sodium	9952 mg/l Ideal value: 10055 mg/l	NORMAL Near nature
Mg Magnesium	1249 mg/l Ideal value: 1202 mg/l	NORMAL Near nature
S Sulfur	908.0 mg/l Ideal value: 831.8 mg/l	ABOVE NORMAL Attention
Ca Calcium	456.0 mg/l Ideal value: 384.8 mg/l	ABOVE NORMAL Attention
K Potassium	342.2 mg/l Ideal value: 373.0 mg/l	BELOW NORMAL Attention
Br Bromine	86.27 mg/l Ideal value: 61.25 mg/l	ABOVE NORMAL Attention
Sr Strontium	11.11 mg/l Ideal value: 7.40 mg/l	CRITICALLY HIGH Critical
B Boron	5.14 mg/l Ideal value: 4.11 mg/l	ABOVE NORMAL Attention
F Fluorine	0.67 mg/l Ideal value: 1.19 mg/l	BELOW NORMAL Attention



Minor elements

Li Lithium	421.9 µg/l Ideal value: 155.4 µg/l	NORMAL Near nature
Si Silicon	85.52 µg/l Ideal value: 91.41 µg/l	NORMAL Near nature
I Iodine	55.53 µg/l Ideal value: 59.42 µg/l	NORMAL Near nature
Ba Barium	20.90 µg/l Ideal value: 9.14 µg/l	NORMAL Near nature
Mo Molybdenum	3.86 µg/l Ideal value: 10.97 µg/l	BELOW NORMAL Attention
Ni Nickel	1.46 µg/l Ideal value: 0.46 µg/l	NORMAL Near nature
Mn Manganese	--- Ideal value: 0.91 µg/l	BELOW NORMAL Attention
As Arsenic	--- Ideal value: 0.46 µg/l	NORMAL Near nature
Be Beryllium	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Cr Chrome	--- Ideal value: 0.46 µg/l	NORMAL Near nature
Co Cobalt	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Fe Iron	2.24 µg/l Ideal value: 0.46 µg/l	NORMAL Near nature
Cu Copper	2.71 µg/l Ideal value: 0.46 µg/l	NORMAL Near nature
Se Selenium	--- Ideal value: 0.46 µg/l	NORMAL Near nature
Ag Silver	--- Ideal value: 0.09 µg/l	NORMAL Near nature
V Vanadium	--- Ideal value: 1.37 µg/l	BELOW NORMAL Attention
Zn Zinc	7.76 µg/l Ideal value: 1.83 µg/l	ABOVE NORMAL Attention
Sn Tin	--- Ideal value: 0.46 µg/l	NORMAL Near nature

Nutrients

NO3 Nitrate	0.69 mg/l Ideal value: 2.00 mg/l	BELOW NORMAL Attention
P Phosphorus	23.66 µg/l Ideal value: 13.71 µg/l	ABOVE NORMAL Attention
PO4 Phosphate	0.07 mg/l Ideal value: 0.04 mg/l	ABOVE NORMAL Attention

Pollutants

Al. Aluminium	83.60 µg/l Ideal value: 0.09 µg/l	ABOVE NORMAL Attention
Sb Antimony	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Bi Bismuth	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Pb Lead	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Cd Cadmium	--- Ideal value: 0.18 µg/l	NORMAL Near nature
La. Lanthanum	--- Ideal value: 0.001 µg/l	NORMAL Near nature
Tl Thallium	--- Ideal value: 0.09 µg/l	NORMAL Near nature
Ti Titanium	--- Ideal value: 0.09 µg/l	NORMAL Near nature
W Tungsten	--- Ideal value: 0.001 µg/l	NORMAL Near nature
Hg Mercury	--- Ideal value: 0.001 µg/l	NORMAL Near nature

Results of Osmosis water

Minor elements

Li Lithium	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Si Silicon	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Ba Barium	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Mo Molybdenum	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Ni Nickel	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Mn Manganese	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
As Arsenic	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Be Beryllium	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Cr Chrome	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Co Cobalt	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Fe Iron	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Cu Copper	1.53 µg/l	CRITICALLY HIGH Critical
	Ideal value: 0.001 µg/l	
Se Selenium	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Ag Silver	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
V Vanadium	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
Zn Zinc	7.26 µg/l	CRITICALLY HIGH Critical
	Ideal value: 0.001 µg/l	
Sn Tin	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	

Nutrients

P Phosphorus	---	NORMAL Near nature
	Ideal value: 0.001 µg/l	
PO4 Phosphate	---	NORMAL Near nature
	Ideal value: 0.001 mg/l	

Pollutants

Al. Aluminium	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Sb Antimony	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Bi Bismuth	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Pb Lead	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Cd Cadmium	---	Ideal value: 0.001 µg/l	NORMAL Near nature
La. Lanthanum	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Tl Thallium	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Ti Titanium	---	Ideal value: 0.001 µg/l	NORMAL Near nature
W Tungsten	---	Ideal value: 0.001 µg/l	NORMAL Near nature
Hg Mercury	---	Ideal value: 0.001 µg/l	NORMAL Near nature

Recommendations

The following recommendations were calculated for the aquarium **DT** with **208 liters** content.

Recommended actions

Strontium

Important

Stop adding strontium to reduce value to 7.8-8.2 mg/l. Can be accelerated by several water changes with Absolute Ocean.

Carbonate hardness

Important

Reduce/stop addition of KH to lower value to 7-8 °dKH.

Bromine

Recommended

Reduce/stop addition of bromide to bring value down to 65-67 mg/l.

Boron

Recommended

Reduce/stop addition of boron to bring value down to 4,3-4,7 mg/l.

Sulfur

Recommended

Stop addition of sulfur to reduce value to 900-920 mg/l.

Zinc

Recommended

Zinc is elevated. Find and eliminate the source (e.g. corroding metals, contaminated water treatment, osmosis water, etc.).

Phosphorus

Recommended

Phosphorus is slightly too high. Improve the filtration and/or reduce the food supply. Check the osmosis water.

Calcium

Recommended

Reduce/stop addition of calcium to bring value down to 410-440 mg/l.

Nitrate

Recommended

Dose 1.04 ml Nutrition N per day. Reduce the dose if the nitrate value exceeds 2 mg/l.

Salinity

Recommended

Increase the salinity to 35 PSU.

For example, add 859 ml Absolute Ocean #1 and 859 ml Absolute Ocean #2 to the aquarium.

Copper

Osmosis

Volume of mixed bed resin filter may not be sufficient (1 liter volume of mixed bed resin should be used per 120 liters of daily output of the osmosis system)

Zinc

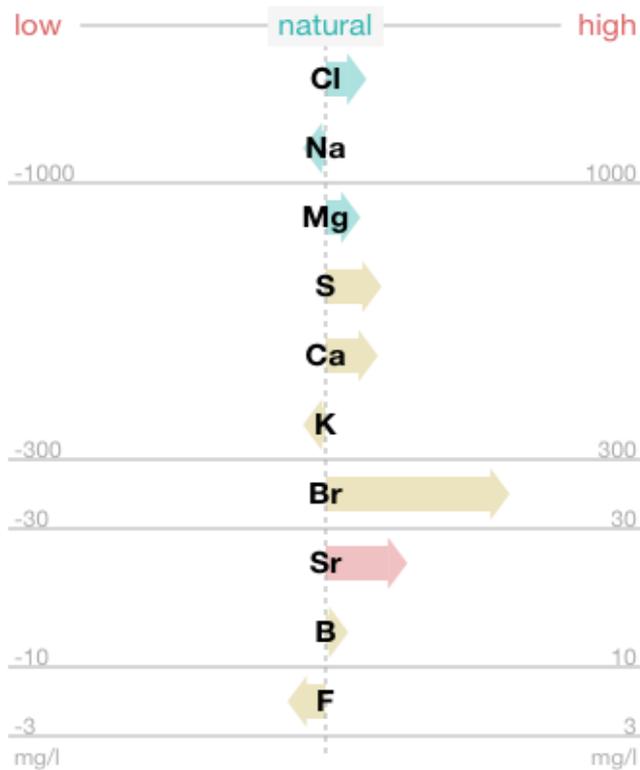
Osmosis

Volume of mixed bed resin filter may not be sufficient (1 liter volume of mixed bed resin should be used per 120 liters of daily output of the osmosis system)

Potassium (K)		Recommended
Addition Total:	64.06 ml	
Divide the addition into portions:	four times 16.01 ml *	
Molybdenum (Mo)		Recommended
Addition Total:	7.4 ml	
Divide the addition into portions:	twice 3.7 ml *	
Vanadium (V)		Recommended
Addition Total:	1.43 ml	
Divide the addition into portions:	twice 0.71 ml *	
Manganese (Mn)		Recommended
Addition Total:	0.95 ml	
Divide the addition into portions:	once 0.95 ml	
Fluorine (F)		Recommended
Addition Total:	54.01 ml	
Divide the addition into portions:	three times 18 ml *	

* Only one portion should be dosed per day.

Diagrams



Composition of the aquarium water

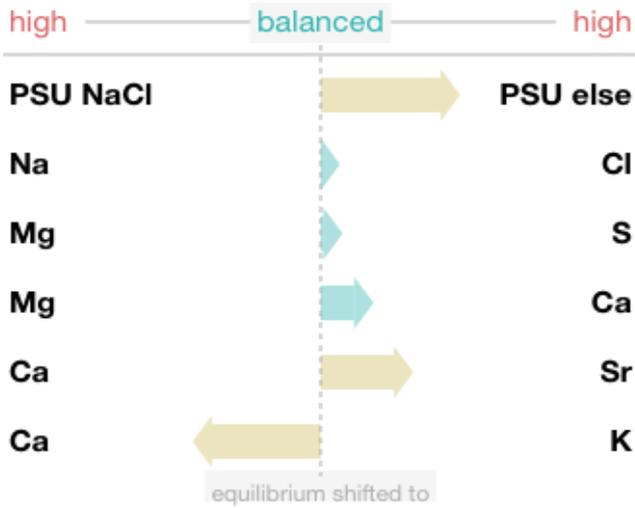
The diagram shows whether the concentrations of the major elements in your water sample match the measured salinity or whether individual elements are increased or reduced. Note the different concentration ranges on the x-axis.

Background: Natural seawater consists of the same elements in fixed proportions. Only the concentrations of the elements increase or decrease in proportion to salinity. That is why the ideal values also change with salinity.

Green arrow
Value is relatively natural.

Yellow arrow
Value is becoming increasingly unnatural.

Red arrow
Value unnatural.



Element ratios

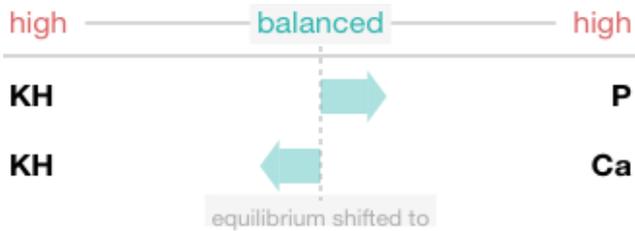
This chart shows whether the element supply is appropriate or whether the ratios of certain element pairs are skewed due to an imbalanced supply. The arrow points in the direction of the element with increased concentration. Only the relationship between the elements is evaluated. The evaluation of the individual measured values may vary.

Background: The reef inhabitants remove various elements from the aquarium water. To compensate for this consumption and obtain water that is true to nature, water changes are carried out and water additives are used. This does not always work as needed.

Green Arrow
Relationship close to nature.

Yellow arrow
Ratio slightly shifted.

Red arrow
Ratio shifted drastically.



Growth Factors

This diagram shows whether important growth factors are in balance or out of proportion. The arrow points in the direction of the factor with increased concentration. Only the relationship between the factors is evaluated. The evaluation of the individual measured values may vary.

Background: The most important growth factors include carbonate hardness, calcium concentration and phosphorus content. When these values are slightly increased, growth is usually encouraged, while greatly increased or reduced values slow growth. If there is an imbalance between these factors, it can adversely affect coral growth and, in the worst case, lead to tissue necrosis.

Green arrow
Balance between factors OK.

Yellow arrow
Factors increasingly disproportionate to one another.

Red arrow
Factors in disproportion to one another.