



Thank you for your business! Please let us know if you have questions, comments, or concerns.

Please remember that the information that accompanies your tested values is a courtesy and is offered only to frame the results in a way meaningful to the aquarium hobbyist. The NSW values, acceptable ranges and recommendations are not meant to replace the advice of aquarium professionals and experienced hobbyists.

Test Results for John Smith

Source ID: Tank B



### Water Test Summary

Ammonia (NH <sub>3</sub> -4) .....	Good .....	0.011
Nitrite (NO <sub>2</sub> ).....	Good .....	0.016
Nitrate (NO <sub>3</sub> ).....	Good .....	1.5
Phosphate (PO <sub>4</sub> ) .....	Good .....	0.09
Silica (SiO <sub>2</sub> -3) .....	High.....	1.1
Potassium (K) .....	Low .....	324
Calcium (Ca).....	Good .....	350
Boron (B) .....	Low .....	2.1
Molybdenum (Mo).....	Good .....	0.1
Strontium (Sr) .....	Good .....	8.2
Magnesium (Mg) .....	Good .....	1183
Iodine (I <sup>-</sup> ).....	Low .....	0.02
Copper (Cu++) .....	Good .....	0.02
Alkalinity (meq/L).....	Good .....	3.56

## Ammonia (NH<sub>3</sub>-4)

Natural Seawater Value: 0.010 mg/L

Acceptable Range: 0.000 to 0.050 mg/L

Tested: 0.011 mg/L

(GOOD) Your ammonia level is within the recommended range. We recommend staying with the current feeding and stocking levels. Be sure to maintain a good schedule of water changes and additives. Ammonia levels can rise after the addition of new animals, after a water change, or after the changing of food diet. Any ammonia level above 0.05 mg/L is a cause for concern, and the source should be found and corrected.

## Nitrite (NO<sub>2</sub>)

Natural Seawater Value: 0.010 mg/L

Acceptable Range: 0.000 to 0.100 mg/L

Tested: 0.016 mg/L

(GOOD) Your nitrite level is within the recommended range. We recommend continuing with your current maintenance and feeding schedules. Residual levels of nitrite are common in marine aquariums. Levels of 0.05 or less are of little concern. If the levels are higher than this, the source should be found and corrected.

## Nitrate (NO<sub>3</sub>)

Natural Seawater Value: 0.050 mg/L

Acceptable Range: 0.000 to 25 mg/L

Tested: 1.5 mg/L

(GOOD) Your nitrate level is within the recommended range. Be sure to maintain reasonable stocking and feeding levels, as well as a regular water change schedule. Nitrate is not toxic in and of itself, but a rising level is indicative of deteriorating water conditions, and any level above 5.0 mg/L in reef aquariums is a reason for concern.

## Phosphate (PO<sub>4</sub>)

Natural Seawater Value: 0.030 mg/L

Acceptable Range: 0.000 to 0.250 mg/L

Tested: 0.09 mg/L

(GOOD) Your phosphate level is within the recommended range. We recommend continuing the current maintenance and water change schedule. The use of a phosphate absorbing resin is recommended to keep phosphate levels below 0.05 mg/L.

## Silica (SiO<sub>2</sub>-3)

Natural Seawater Value: 0.040 mg/L

Acceptable Range: 0.000 to 0.500 mg/L

Tested: 1.1 mg/L

(HIGH) Your silica level is too high. We recommend that you use a silica specific R/O membrane in addition to deionization resin for your make-up/top-off water. You may also use a commercially available phosphate absorber, as these will also remove some silicate. Silicate is required by many types of sponges for growth/reproduction, but will also encourage brown diatom algae growth. Any level above 0.3 mg/L may cause a diatom bloom in the aquarium.

## Potassium (K)

Natural Seawater Value: 390 mg/L

Acceptable Range: 350 to 450 mg/L

Tested: 324 mg/L

(LOW) Your potassium level is too low. We recommend performing a partial water change, and possibly adding a commercial additive containing potassium. Potassium is rapidly depleted from aquarium water by several plant and animal metabolic processes. Maintenance of appropriate levels is critical for cellular respiration, as well as being an important nutrient for coral zooxanthellae and macro algae.

## Calcium (Ca)

Natural Seawater Value: 400 mg/L

Acceptable Range: 350 to 450 mg/L

Tested: 350 mg/L

(GOOD) Your calcium level is within the recommended range. We recommend that you continue with your current schedule of calcium additions. Calcium is critical to healthy coral skeletal growth, and many other biological processes. Maintenance of calcium levels that are at or near seawater values is an important factor in having a healthy reef aquarium.

## Boron (B)

Natural Seawater Value: 4.6 mg/L

Acceptable Range: 3.0 - 6.0 mg/L

Tested: 2.1 mg/L

(LOW) Your boron level is too low. We recommend performing a water change, and possibly the addition of a commercial buffer containing borate salts. Boron is an important part of the water buffering capacity, and a lack of boron can lead to dangerous fluctuations in pH and alkalinity.

## Molybdenum (Mo)

Natural Seawater Value: 0.01 mg/L

Acceptable Range: 0.0 to 0.12 mg/L

Tested: 0.1 mg/L

(GOOD) Your molybdenum level is within the recommended range. Molybdenum is found in many common additives and at highly elevated levels in most salt mixes and so a vast majority of reef tanks demonstrate a level 10 to 50 times higher than natural levels. 0.12 mg/L is the upper toxicity limit for Molybdenum, the point at which negative effects can begin to manifest themselves. Your level is below this limit and is in proximity to natural sea water values. Molybdenum is important to microbial activity in the aquarium filter, and may also be important to stony coral health and reproduction.

## Strontium (Sr)

Natural Seawater Value: 8.1 mg/L

Acceptable Range: 5.0 to 12.0 mg/L

Tested: 8.2 mg/L

(GOOD) Your strontium level is within the recommended range. We recommend continuing with your current additive schedules. Strontium is important to coral growth, as they incorporate strontium ions into their skeletal mass, particularly SPS corals. It is also important to coralline algae growth.

## Magnesium (Mg)

Natural Seawater Value: 1280 mg/L

Acceptable Range: 1100 to 1400 mg/L

Tested: 1183 mg/L

(GOOD) Your magnesium level is within the recommended range. We recommend staying with your current water change and additive schedule. Magnesium is a very important part of the water buffering system, and is incorporated into coral skeletons. It is also critical to any photosynthetic processes.

## Iodine (I<sup>-</sup>)

Natural Seawater Value: 0.060 mg/L

Acceptable Range: 0.030 to 0.090 mg/L

Tested: 0.02 mg/L

(LOW) Your iodine level is too low. We recommend using an iodine-specific additive to raise this level. Iodine is removed from the water by various biological processes, protein skimming, and activated carbon. Iodine is required by soft corals, macro algae, and for pigment development in SPS corals.

## Copper (Cu<sup>++</sup>)

Natural Seawater Value: 0.030 mg/L

Acceptable Range: 0.000 to 0.030 mg/L

Tested: 0.02 mg/L

(GOOD) Your copper level is within the recommended range. We recommend continuing with your current water change schedule, being careful to use only RO/DI water for make-up/top-off water. Use of activated carbon can also help keep this level in check. Copper is fatal to marine invertebrates at levels as low as 0.05 mg/L for many species.

## Alkalinity (meq/L)

Natural Seawater Value: 2.5 meq/L

Acceptable Range: 2.5 to 5.0 meq/L

Tested: 3.56 meq/L

(GOOD) Your alkalinity level is within the recommended range. We recommend continuing with your current water change and buffering schedule. Maintaining an appropriate alkalinity is crucial to maintaining a healthy aquarium. A fluctuating alkalinity will lead to serious problems in maintaining an appropriate pH, as well as problems keeping calcium and magnesium levels within required ranges.

Thank you for using [AquariumWaterTesting.com](http://AquariumWaterTesting.com)