

When analysis is complete and the data is reviewed and verified, a report will be sent directly to your email address. Reports are in PDF format, and require Acrobat Reader to view. We can also SMS a summary of important results on request.

An example of an AST Biotoxin report is shown below.

If you require assistance with sample submission or interpretation of results please contact AST on 6165 3300.

ANALYTICAL SERVICES TASMANIA

New Town Laboratory

18 St Johns Avenue

New Town, Tasmania, Australia, 7008

Telephone: (03) 6165 3300 Note that AST no longer has fax facilities

Email: enquiries@ast.tas.gov.au



Laboratory Report

Report No: 87687 **Issue No:** 1 **Report Date:** 20-Jun-2018 11:03
Status: Full Report

If you need to discuss test results with AST you need to include the Report Number in any communication to help us to quickly track and respond to your query.

The Status indicates whether the report is a “Full Report” or a “Partial Report”. A full report will contain all results for all samples, while a partial report will only contain some of the results (eg. PST screen results before going to confirmation).

The growing areas is listed in the Site Description

Site Description: Analytical Services Tasmania

Received: 18-Jun-18

Submitted to: New Town Laboratory

Submitted By: Tim Jordan

Client Order No:

Report To: TSQAP

Client: TSQAP

Address: Level 2 13 St Johns Ave New Town Tas 7008

ANALYTICAL SERVICES TASMANIA

Report No: 87687 Issue No: 1 Report Date: 20-Jun-2018 11:03

Lab No: 353814
Sample ID: AST 123 O
Sampled On: 18/06/18 08:00

The Sample ID will show the Growing Area, Lease Number and shellfish type (Oyster/Mussel).

Method	Analyte	Units	
3411-Biota	AZA1	mg/kgWMB	<0.01
	AZA2	mg/kgWMB	<0.01
	AZA3	mg/kgWMB	<0.01
	DTX1 Free	mg/kgWMB	0.01
	DTX1 Total	mg/kgWMB	0.20
	DTX2 Free	mg/kgWMB	<0.01
	DTX2 Total	mg/kgWMB	0.80
	Domoic Acid	mg/kgWMB	0.50
	GTX	mg/kgWMB	<0.01
	Homo-YTX	mg/kgWMB	<0.03
	OA Free	mg/kgWMB	0.02
	OA Total	mg/kgWMB	0.05
	PnTx	mg/kgWMB	<0.01
	PTX2	mg/kgWMB	0.05
	SPX1	mg/kgWMB	<0.01
	Total DST	OA eq. mg/kg	0.70
	YTX	mg/kgWMB	<0.03
3412a-Biota	C1,2	STX eq. mg/kg	0.062
	C3,4*	STX eq. mg/kg	<0.005
	dcGTX2,3	STX eq. mg/kg	<0.05
	dcNEO	STX eq. mg/kg	<0.04
	dcSTX	STX eq. mg/kg	<0.025
	GTX1,4	STX eq. mg/kg	1.5
	GTX2,3	STX eq. mg/kg	0.10
	GTX5	STX eq. mg/kg	<0.02
	NEO	STX eq. mg/kg	<0.02
	STX	STX eq. mg/kg	<0.02
	Total PST - Confirmation	STX eq. mg/kg	1.7
3412-Biota	C1,2	STX eq. mg/kg	0.18
	dcSTX	STX eq. mg/kg	0.29
	GTX1,4	STX eq. mg/kg	1.2
	GTX2,3	STX eq. mg/kg	0.65
	GTX5	STX eq. mg/kg	<0.02
	NEO	STX eq. mg/kg	<0.02
	STX	STX eq. mg/kg	<0.05
Total PST - Screen	STX eq. mg/kg	2.3	

These are the results for each toxin.

A result with a "<" (less than) indicates the amount was less than the reporting limit of the method (i.e. not detected).

The total toxicity for the screen and confirmation tests are listed separately.

Important results are:

Domoic Acid = AST

Total DST

Total PST – Confirmation

Total PST – Screen

If the "Total PST – Screen" is over 0.4 STX eq. mg/kg, then a "confirmation" test is undertaken.

Method Codes

- 3411 – Lipophilic Toxins, including AST & DST
- 3411a – Neurotoxic Shellfish Toxins (NST)
- 3412 – PST Screen
- 3412a – PST Confirmation

The "Total PST – Confirmation" is the "final" result that should be used when assessing results against the regulatory limits specified in the TSQAP Biotoxin Management Plan.

Toxin Abbreviations

PST **Paralytic Shellfish Toxins**

- STX Saxitoxin
- Neo Neosaxitoxin
- GTX2,3 Gonyautoxins 2 + 3
- GTX1,4 Gonyautoxins 1 + 4
- GTX5 Gonyautoxin 5
- dcSTX Decarbamoyl Saxitoxin
- C1,2 N-sulfocarbamoylgonyautoxins 1+2
- C3,4 N-sulfocarbamoylgonyautoxins 3+4
- dcNEO Decarbamoyl Neosaxitoxin
- dcGTX2,3 Decarbamoyl Gonyautoxins 2 + 3
- dcGTX1,4 Decarbamoyl Gonyautoxins 1 + 4

Total PST is reported as the sum of each of the toxins

* The star on the C3,4 analyte in the results notes that the Toxin is not covered by NATA accreditation as there are no authentic standards available for purchase at this time (eg. C3,4 as at July 2018).

AST **Amnesic Shellfish Toxins**

- Domoic Acid

DST **Diarrhetic Shellfish Toxins**

- OA Okadaic Acid
- DTX Dinophysistoxin
- PTX Pectenotoxin
- Free/Total Total includes ALL forms (ie. esters)

Total DST is reported as "OA eq. mg/kg" and is calculated as follows:

$$\text{OA Total} + \text{DTX1 Total} + 0.5 \cdot \text{DTX2 Total} + \text{PTX2}$$

Other Lipophilic Toxins

- AZA Azaspiracid
- GYM Gymnodimine
- PnTx Pinnatoxin
- SPX Spirolide
- YTX Yessotoxin

NST **Neurotoxin Shellfish Toxins**

- PbTx Brevetoxin (not routinely tested)

Results are reported on a Wet Matter Basis (WMB)

Laboratory Measurement Uncertainty

For any test that is undertaken, there is an inherent uncertainty (error margin) associated with the result, and knowing the uncertainty can sometimes help when making decision based upon the results. Factors that affect uncertainty are, for example, physical processes such as weighing and volumes, through to instrumental responses. Other sources of uncertainty external to the laboratory (eg. sampling, weather, transport etc) are not considered part of the reported laboratory measurement uncertainty.

The overall uncertainty estimates for each test are listed on the final page on the report and are presented as a percentage of the result (eg. Total PST – Confirmation has an estimated uncertainty of $\pm 30\%$).

Please contact TSQAP (03 6165 3771) if you require assistance in assessing your results against the regulatory limits specified in the TSQAP Biotoxin Management Plan.

If you would like more information regarding Biotoxin testing, please contact:

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