

Algal bloom wildlife post-mortem report



Species – Australian sea lion

Date collected – 28 August 2025

Location – Vivonne Bay, Kangaroo Island

History relating to the animal

An adult male Australian sea lion (*Neophoca cinerea*) hauled itself out onto Jetty Road at Vivonne Bay for several days. The animal was losing body condition during its time ashore, with nasal discharge and damage to the left eye (held closed). The animal was humanely euthanised on 28 August 2025.

Clinical examination

The animal was in poor body condition with marked muscle wasting. There was nasal discharge, and damage to the left eye (was held closed).

Necropsy

The necropsy (looking at the whole body) revealed that the sea lion weighed 122kg and was 1.85m in length. There was minimal fat under the skin, within the abdomen and around the kidneys.

In the left eye the conjunctiva (tissues surrounding the eye) and sclera (white part of the eye) were torn and swollen, with bleeding within the globe (eyeball) and damage to the lens and retina (internal structures of the eye). Within both lungs there were 5-10mm round firm, pale white, nodules (lumps). There was no food in the stomach or intestines.

Samples were collected to test for avian influenza and *Mycobacterium tuberculosis* (MTb) complex organisms. Tissues were collected for histopathology (looking at tissues under the microscope for more detailed information) and testing for brevetoxins and other algal biotoxins (a possibility due to the algal bloom).

Histopathology

Samples from every major body system were examined under the microscope. Examination of the lung revealed moderate, chronic (long-term) bacterial bronchopneumonia (infection of the lungs and airways). This bacterial infection was found to have spread to the kidneys.

There were mites (parasites) in the nasal mucosa (lining of the nasal passages) with evidence of inflammation. There was moderate autolysis (decomposing after death) of the gut and evidence of cestodes (tapeworms) in the colon. The left eye showed severe trauma, inflammation, and infection with large numbers of bacteria present.

Bacteriology

Algal bloom wildlife post-mortem report



There were Gram positive cocci (spherical bacteria) within the lungs. *Mycobacterium sp.* and acid-fast bacilli (a type of bacteria) were not seen and polymerase chain reaction (PCR) testing for *MTb* complex organisms were negative.

Virology

Testing results for avian influenza were negative.

Brevetoxins

No samples were above the limits of reporting.

Other algal biotoxins

No samples were above the limits of reporting.

Summary

An adult male Australian sea lion (*Neophoca cinerea*) was found on the roadside near a beach. It was underweight and appeared unwell or injured and was euthanised. Laboratory examination revealed severe trauma and infection to the left eye, and a chronic (long-term) lung infection, which had spread to the kidneys. The cause of infection was not confirmed but was most likely to have been *Streptococcus spp.* bacteria; testing ruled out tuberculosis as the cause. These conditions would have contributed to weakness and limited the animal's ability to hunt and forage for food, resulting in the weight loss seen.

Nasal mites (parasites) were also found in this animal, which would have contributed to the nasal discharge seen. These mites are reported in sea lions; high burdens can cause breathing difficulties. Testing for avian influenza was negative. Brevetoxins and other algal biotoxins were also not detected.

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]

Date Fri 29/08/2025 12:30 PM

To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 29/08/25 13:00
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

NECROPSY REPORT

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;

A male Australian sea lion had hauled itself out onto Jetty Road at Vivonne Bay Kangaroo Island over several days. The animal had declining body condition, nasal discharge and damage to one eye (the eye was closed over). The animal was euthanized on 28/8/2025

SAMPLES SUBMITTED

1 dead adult male Australian sea lion, *Neophoca cinerea*

NECROPSY FINDINGS

The animal is in poor body condition. There is marked atrophy of epaxial muscles and intercostal muscles. There is minimal subcutaneous, abdominal and perirenal fat. The animal weighs 122 kg and is 1.85 m long.

There is a 20-30mm hole over the top of the head, abundant fractures of the dorsal cranium and the brain is fragmented with abundant haemorrhage

The conjunctiva and sclera over the dorsal aspect of the left eye are torn (approximately 20mm linear in length across the eye, following the arc of the cornea). Circumferentially the conjunctiva is swollen and red. There is extensive haemorrhage within the globe, the lens is loose within the globe and there is multifocal retinal detachment

Bilaterally in the cranial lung fields there are 5-10mm round firm, pale white, nodules with demarcated borders.

There is no ingesta in the stomach, small intestinal tract and only scant dark brown faeces in the rectum.

GROSS SUMMARY

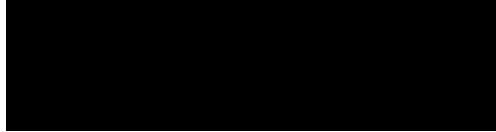
Chronic weight loss

Bronchopneumonia

Left eye: Marked conjunctivitis with focal torn conjunctiva and sclera, hyphaema, displaced lens and retinal detachment; consistent with trauma



Tested on 29/08/25
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Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received

SAMPLES COLLECTED & TESTING

As requested the following testing will be completed;
Fresh liver, lung, heart, spleen, kidney, brain and oropharyngeal swab in virus transport medium will be tested by Avian influenza PCR at Gribbles VETLAB and ACDP.

Formalin fixed liver, lung, heart, spleen, kidney, brain, bronchial lymph node, stomach, duodenum, pancreas, jejunum, ileum, caecum, colon, left nasal passage, left eye are processed for histopathology.

Fresh liver, spleen, heart, lung, kidney, brain are stored at -80 degrees Celsius if biotoxin and brevetoxin testing is required.

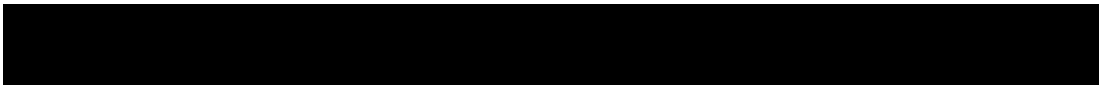
A swab of the left nasal passage and left cornea in Ames medium are stored.

COMMENTS

Severe trauma to the left eye caused blindness and would have been very painful. This probably limited the animal's ability to hunt and forage for food and contributed to the weight loss.

The bronchopneumonia may be due to filarid nematodes or a bacterial process. Histopathology will help to clarify the changes and indicate if microbiological and molecular testing, including testing for Mycobacterium sp. is warranted.

There is no nasal discharge evident at necropsy. The discharge may have resolved post death. The nasal passages all appear grossly normal.



[REDACTED]

Specialist Veterinary Anatomic Pathologist

[REDACTED]

Validated by [REDACTED]

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]
Date Mon 08/09/2025 3:30 PM
To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 08/09/25 16:00
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

HISTOPATHOLOGY FROM NECROPSY

REF: [REDACTED]
ADDITIONAL FINDINGS 29/8/2025

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;

A male Australian sea lion had hauled itself out onto Jetty Road at Vivonne Bay Kangaroo Island over several days. The animal had declining body condition, nasal discharge and damage to one eye (the eye was closed over). The animal was euthanized on 28/8/2025

SAMPLES SUBMITTED

1 dead adult male Australian sea lion, *Neophoca cinerea*

MACROSCOPY

Cassettes include the following tissue

A: liver, spleen, heart

B: kidney, lung

D: bronchial lymph node, splenic lymph node, adrenal gland, skeletal muscle

E: jejunum, ileum, caecum, colon

F: duodenum, stomach

G-H torn conjunctiva / sclera of left eye; left eye

Fragments of brain

I: basal ganglia

J: frontal cortex

K: thalamus

L: parietal cortex

(only limited sections of brain were intact for histopathology); Ae GK

MICROSCOPY

Lung: Multifocally alveolar spaces are expanded by large numbers of viable degenerate neutrophils, alveolar macrophages and fewer lymphocytes and plasma cells. Similarly within the lumen of bronchi and bronchioles there are moderate numbers of viable degenerate neutrophils and alveolar macrophages, oedema and haemorrhage. Multifocally colonies of extracellular coccoid bacteria and intracytoplasmic coccoid bacteria within macrophages and neutrophils are seen within alveolar spaces and airways. The interstitium of alveoli is expanded by low numbers of

[REDACTED]

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[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25

Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

lymphocytes plasma cells neutrophils and macrophages. (Moderate, multifocal, chronic, pyogranulomatous, bronchopneumonia with intralesional coccoid bacteria)

Bronchial lymph nodes: There is diffuse lymphoid hyperplasia and medullary sinuses are expanded by moderate numbers of hemosiderophages, lymphocytes and plasma cells. (Lymphoid hyperplasia and reactive lymph node)

Nasal mucosa: Diffusely, submucosa are expanded by moderate numbers of lymphocytes and plasma cells. Adjacent to the mucosa are multiple cross sections of acarids (smooth tegument, appendages with skeletal muscle, coelom, alimentary tract and gonads). (Nasal acaridiasis, possibly Orthohalarachne sp.)

Kidney: Rare capillaries are expanded by bacterial emboli containing coccoid bacteria. (Bacterial emboli)

There is moderate autolysis of alimentary sections. Aside from this artifact the following findings are described.

Colon: Within the lumen of colonic glands are cross sections of cestodes, 30 micron diameter (smooth cuticle, spongy parenchyma, no alimentary tract and basophilic calcareous corpuscles)

Left eye: Extending from the torn edge of the conjunctiva and sclera there are large numbers of coccoid and short rod bacteria admixed with haemorrhage, fibrin, viable and degenerate neutrophils, lesser macrophages. The inflammation and haemorrhage extends into the anterior and posterior chambers and vitreous. The retina is effaced and replaced by the inflammation, haemorrhage and bacteria. There is focally extensive hyperplasia of the corneal epithelium. (Marked, global,

subacute, necrotizing, pyogranulatomous panophthalmitis with
intralesional mixed bacteria; consistent with traumatic panophthalmitis)

Brain: There is multifocal haemorrhage.

Those tissues not described are unremarkable.

DIAGNOSIS

[REDACTED]

Tested on 29/08/25
Reported on 08/09/25 16:00
Referred on 28/08/25 **by:** [REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25

Subm.No.: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

Lung: Bacterial bronchopneumonia

Bronchial lymph nodes: Lymphoid hyperplasia and reactive lymph node

Kidney: Bacterial emboli

Nasal mucosa: Nasal acaridiasis, possibly Orthohalarachne sp.

Colon: Colonic cestodiasis (likely Tetraphyllidae cestode)

Left eye: Marked, global, subacute, necrotizing, pyogranulatomous panophthalmitis with intralesional mixed bacteria; consistent with traumatic panophthalmitis

Brain: Multifocal haemorrhage.

COMMENTS

The traumatic panophthalmic in the left eye and bacterial bronchopneumonia (with secondary bacteremia - bacterial emboli in the kidney) contributed to weakness and weight loss for this animal.

Special stains are pending to characterize the bacteria in the lungs and assess for intercurrent Mycobacterial infection. The coccoid bacteria are suggestive of Streptococcus sp. Please contact the laboratory within the next 4-5 working days if bacterial culture of the lung is required to try to identify the bacteria.

Nasal mites contributed to the nasal discharge. Orthohalarachne sp. nasal mites are reported in sealions. High burdens of Orthohalarachne sp. can cause dyspnea (Obendorf 1987)

Obendorf DL (1987) Important parasites of Australian marine mammals. Australian Advances in Veterinary Science, 121-123.

8/9/2025

MICROSCOPY

Lung: There are Gram positive cocci in the lungs. Acid-fast

[REDACTED]

Tested on 29/08/25
Reported on 08/09/25 16:00
Referred on 28/08/25 **by:** [REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25

Subm.No.: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

(Mycobacterium sp.) are not seen on Ziehl Neelsen (ZN) stains.

COMMENTS

Bacteria such as Streptococcus sp. (based on the Gram stains) contributed to the bronchopneumonia. There are no Mycobacterium sp. like bacilli seen on ZN stains.

[REDACTED]

Specialist Veterinary Anatomic Pathologist
[REDACTED]

Validated by [REDACTED]

SUMMARY DIAGNOSIS

Left eye: Traumatic panophthalmitis
Bacterial bronchopneumonia

SUMMARY COMMENTS

The traumatic panophthalmic in the left eye and bacterial bronchopneumonia (with secondary bacteremia - bacterial emboli in the kidney) contributed to weakness and weight loss for this animal.

[REDACTED]

Specialist Veterinary Anatomic Pathologist
[REDACTED]

Validated by [REDACTED]

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]
Date Wed 15/10/2025 11:30 AM
To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 15/10/25 12:00
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

MOLECULAR DIAGNOSTICS

Influenza Type A - TaqMan Assay


Species : Australian Number of specimens: 7
 : Sea Lion
Specimen type : Oropharyngeal (OP) swab & tissue

SAMPLE ID	TEST RESULT
OP SWAB	Negative
LUNG	Negative
LIVER	Negative
SPLEEN	Negative
HEART	Negative
KIDNEY	Negative
BRAIN	Negative

Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

** AMENDED REPORT **

Please discard original report and replace with this updated report.

Validated by  Laboratory Scientist.

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]

Date Tue 02/09/2025 2:00 PM

To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 02/09/25 14:30
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No.:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Tissue & Oropharyngeal swab in VTM (OP SWAB)

SPECIMEN ID Type A H5 H7

LIVER Not detected
SPLEEN Not detected

KIDNEY	Not detected
BRAIN	Not detected
HEART	Not detected
LUNG	Not detected
OP SWAB	Not detected

Validated by [REDACTED] Laboratory Scientist.

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]
Date Wed 12/11/2025 12:00 PM
To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 12/11/25 12:30
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received All Tests Complete

REFERRED TEST

Disease/Test : Mycobacterium Isolation
Specimen Type: Lung

RESULT : Mycobacterium sp. was not isolated

Comment : NATA accreditation does not cover the performance of this service. Cultures were incubated for 8 weeks.

This test was performed by: Australian Centre for Disease Preparedness
(CSIRO)
NATA accreditation number: 13546

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PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]

Date Wed 17/09/2025 1:00 PM

To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 17/09/25 13:30
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

REFERRED TEST

Disease/Test : Pan-Mycobacterium Taqman
Specimen Type: Lung

RESULT : Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by [REDACTED] Laboratory Scientist.

REFERRED TEST

Disease/Test : Mycobacterium tuberculosis complex IS6110

Method : TaqMan Assay

Specimen Type: Lung

RESULT : Negative

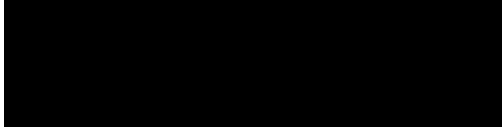
Comment : NATA/RCPA accreditation does not cover the performance of
this service

This test was performed by: Australian Centre for Disease Preparedness
(CSIRO)
NATA accreditation number: 13546

Validated by [REDACTED] Laboratory Scientist.



Tested on 29/08/25
Reported on 17/09/25 13:30
Referred on 28/08/25 **by:**



Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No:**  **Lab No.:** 

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium avium complex Taqman
Specimen Type: Lung

RESULT : Negative

Comment : NATA/RCPA accreditation does not cover the performance of this service

This test was performed by: Australian Centre for Disease Preparedness (CSIRO)
NATA accreditation number: 13546

Validated by  Laboratory Scientist.

CERTIFICATE OF ANALYSIS

Customer:
Address:
Contact:

Submission Description: Sea Lion
Sample Received Date: 11/12/2025
Contract Number:
Client Order Number:
Program/Quote Reference: Biotoxin and Brevotoxins

*Sample(s) analysed as received. Sampling date and time data supplied by the client. The document shall not be reproduced except in full.
Additional information relating to this submission can be found in the sample receipt notification.
This report supersedes any previous reports with this submission number.
Many tests specify a holding time which gives the recommended timeframe by which a sample should be preserved/extracted and/or analysed after the sample is taken.
Holding time information can be found on the AST website <https://analyticalservices.tas.gov.au/our-services/containers-samples-and-submissions>.
Whilst every effort is made to analyse samples within these timeframes, situations can occur where this is not possible.
Where a test has been conducted outside the recommended sample holding time this should be taken into account when interpreting results.*

The results in this report were authorised by:

Name	Position	Name	Position
	Chemist		Section Head - Organic Chemistry

Test Information:

Method ID	Test Description	Date Commenced:
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	02-02-2026
3411A	Brevetoxins in Shellfish by LC-MS/MS	02-02-2026
3416	PST in Biota by LC-MS/MS (Boundy Method)	02-02-2026

Chemistry Test Results (Biota - Food)		Sample Description	Heart	Spleen	Liver	Lung	Brain	Kidney
		Sampled Date/ Time	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00
Method ID	Analyte	Units	391407	391408	391409	391410	391411	391412
3411	AZA1	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	AZA2	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	AZA3	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	Domoic Acid	mg/kg WMB	<0.05*	<0.05*	<0.05*	<0.05*	<0.05*	<0.05*
	DTX1 Free	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	DTX1 Total	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	DTX2 Free	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	DTX2 Total	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GYM	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	Homo-YTX	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	OA Free	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	OA Total	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	PnTx-G	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	PTX2	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	SPX1	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	Total DST	OA eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	YTX	mg/kg WMB	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
3411A	Brevetoxin 1	mg/kg WMB	<0.10*	<0.10*	<0.10*	<0.10*	<0.10*	<0.10*
	Brevetoxin 2	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	Brevetoxin 3	mg/kg WMB	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
3416	C1	STX ₂ HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	C2	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	C3	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	C4	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX1	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX2	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX3	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcGTX4	STX ₂ HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*

* NATA accreditation does not cover this result

Chemistry Test Results (Biota - Food)		Sample Description	Heart	Spleen	Liver	Lung	Brain	Kidney
Method ID	Analyte	Units	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00	05/08/25 0:00
3416			391407	391408	391409	391410	391411	391412
	dcNEO	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	dcSTX	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	doSTX	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX1	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX2	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX3	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX4	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	GTX5	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	GTX6	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	NEO	STX.2HCl eq. mg/kg	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*	<0.02*
	STX	STX.2HCl eq. mg/kg	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*	<0.01*
	Total PST	STX.2HCl eq. mg/kg	<0.10*	<0.10*	<0.10*	<0.10*	<0.10*	<0.10*

* NATA accreditation does not cover this result

PATH RESULTS: SEA LION AUSTRALIAN, (Ma) [REDACTED]

From [REDACTED]
Date Wed 11/02/2026 9:00 AM
To [REDACTED]

[REDACTED]

Tested on 29/08/25
Reported on 11/02/26 09:30
Referred on 28/08/25 **by:**

[REDACTED]

[REDACTED]

Owner:
SEA LION AUSTRALIAN
JETTY ROAD
VIVONNE BAY 5223

Animal/s:
Marine Mammal

DOB: N/A

Collected: 28/08/25 00:25 **Subm.No.:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received All Tests Complete

ADDITIONAL COMMENTS 11/2/2026

SUMMARY DIAGNOSIS
Left eye: Traumatic panophthalmitis
Bacterial bronchopneumonia

SUMMARY COMMENTS
The traumatic panophthalmic in the left eye and bacterial bronchopneumonia (with secondary bacteremia - bacterial emboli in the kidney) contributed to weakness and weight loss for this animal.

ADDITIONAL COMMENTS 11/2/2026
Biotoxins and brevetoxins are not detected by liquid chromatography and mass spectrometry at Analytical Services Tasmania (please refer to AST report [REDACTED] related to [REDACTED] veterinary pathology report [REDACTED])

[REDACTED]

[REDACTED]
Specialist Veterinary Anatomic Pathologist
[REDACTED]

Validated by [REDACTED]

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