

Algal bloom wildlife post-mortem report



Government of South Australia

Department for Environment and Water

Species – Australian fur seal

Date collected – 6 October 2025

Location – Brownlow Beach, Kangaroo Island

History relating to the animal

A female juvenile Australian fur seal (*Arctocephalus pusillus*) was found dead at Brownlow Beach, Kangaroo Island on 6 October 2025.

Clinical examination

The animal was already dead and so could not be examined prior to death. There was no evidence of external injuries.

Necropsy

The necropsy (looking at the whole body) revealed that the seal was in moderate body condition, weighed 9.8kg and was 1m in length. There was minimal subcutaneous (under the skin) and abdominal fat, with two plerocercoids (infective stage of a tapeworm) within the subcutaneous fat. There was moderate autolytic change (decomposition of tissues after death), with no signs of external trauma. The lungs were mottled red to pink in colour. The stomach contained multiple ascarids (roundworms) and scant (small amount) mucus. The intestines contained small amounts of pasty brown ingesta.

Samples were collected to test for avian influenza, *Brucella spp.*, 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 mild, multifocal (multiple area), subacute to chronic (present for some time) lymphocytic, plasmacytic (types of immune cells) interstitial pneumonia (inflammation occurring between air sacs), and bronchitis (inflammation of the airways) with bacteria and filarial nematodes (parasitic worms, likely lungworms) found within the affected tissues.

Within the heart there was mild, multifocal, subacute (ongoing), lymphocytic, plasmacytic, neutrophilic (types of immune cells), myocarditis (inflammation of heart muscle) with myocardocyte necrosis (death of heart muscle cells).

Within the liver there was mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic (types of immune cells), hepatocellular necrosis (death of liver cells).

Algal bloom wildlife post-mortem report



Government of South Australia

Department for Environment and Water

A single skeletal muscle cell contained multiple, small bradyzoites (dormant/cystic phase of a parasite - possible *Sarcocystis spp.*). There was mild autolysis (decomposing after death) of the kidneys and gut, with evidence of cestodes (tapeworms) and nematodes (roundworms) within the caecum (similar to the appendix) and colon. The remaining organs appeared normal on examination.

Bacteriology

Testing results for *Brucella spp.* and *MTb* complex organisms were negative.

Virology

Testing results for avian influenza were negative.

Brevetoxins

No samples were above limits of reporting.

Other algal biotoxins

No samples were above limits of reporting.

Summary

A female juvenile Australian fur seal was found dead. Laboratory examination could not determine the cause of death. The animal had an infection of the lungs caused by bacteria and parasites which likely contributed to illness, and possibly chronic weight loss and death.

Inflammation and cell death found in the liver and heart were likely a result of the infection spreading via the bloodstream (bacteraemia).

The worms found in the stomach (roundworms), intestines (roundworms and tapeworm), and subcutaneous tissue (tapeworm), along with the bradyzoites within the skeletal muscle (likely *Sarcocystis spp.*) are all common findings in wild seals.

Testing for avian influenza, brucellosis (*Brucella spp.*) and tuberculosis (*Mycobacterium tuberculosis* complex organisms) was negative. Brevetoxins and other algal biotoxins were also not detected.

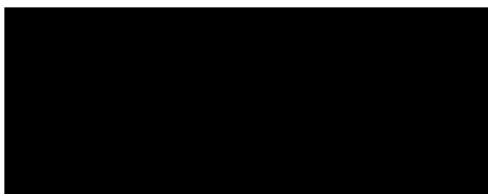


PATH RESULTS: SEAL, (Ma) [REDACTED]

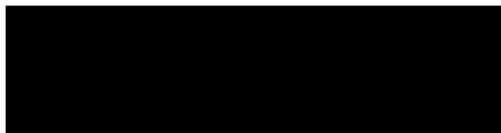
From [REDACTED]

Date Sat 18/10/2025 4:00 PM

To [REDACTED]



Tested on 08/10/25
Reported on 18/10/25 16:30
Referred on 06/10/25 by: [REDACTED]



Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm.No.:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

HISTOPATHOLOGY FROM NECROPSY

REF: [REDACTED]

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;
On Saturday one dead baby seal was reported looking very unwell. When the ranger returned at 4pm on Sunday it was still alive. On Monday 6/10/25 at 8am the ranger found it dead on the beach.

One dead juvenile female Australian fur seal, *Arctocephalus pusillus*

MACROSCOPY

A: lung, skeletal muscle, heart, plerocercoid
B: kidney, liver
C: spleen, adrenal gland, stomach, jejunum
D: ileum, caecum, colon, duodenum, pancreas
Brain
E: midbrain
F: cerebellum

G: thalamus, parietal cortex

H: occipital cortex

I: frontal cortex; Ae GK

MICROSCOPY

Lung: Multifocally, bronchiolar lumen and alveolar lumen are distended by multiple cross sections of nematodes. The nematode is approximately 50 to 80 m in diameter with smooth cuticle, platyphyarian musculature, lateral cords, pseudocoelom, alimentary tract lined by monolayer of columnar epithelium and gravid uteri containing larvated ova. Multifocally alveolar interstitium and the connective tissue surrounding airways is expanded by moderate numbers of lymphocytes and plasma cells and hyperaemia / congestion. Within the lumen of bronchi and bronchioles there are low numbers of macrophages, which occasionally contain intracytoplasmic coccoid bacteria. There are also extracellular coccoid bacteria within these lumens. (Mild, multifocal, subacute to chronic lymphocytic, plasmacytic interstitial pneumonia, and bronchitis with intralesional coccoid bacteria and filarial nematodes; possible *Parafilaroides* sp.)

Skeletal muscle: A single myocyte is expanded by a sarcocyst-like cyst, 20 micron diameter, with a smooth capsule, containing abundant 1 micron

Tested on 08/10/25
Reported on 18/10/25 16:30
Referred on 06/10/25 by:

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm. No.:** [REDACTED]

Lab No.: [REDACTED]

Samples tested as received
diameter bradyzoites. (Possible Sarcocystosis)

Heart: Multifocally there is necrosis of individual cardiomyocytes surrounded by low numbers of lymphocytes, plasma cells and neutrophils. (Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, myocarditis with myocardiocyte necrosis)

Liver: There is mild individual hepatocellular necrosis. The necrotic hepatocytes are surrounded by low numbers of lymphocyte, plasma cells and neutrophils. (Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, hepatocellular necrosis)

There is mild autolysis of the kidney and intestinal sections.

Aside from this artefact the following findings are described.

Colon and caecum: There are cross sections of cestodes (40 micron diameter, with smooth cuticle, spongy parenchyma with basophilic calcareous corpuscles, sucker) and nematodes (40 micron across with smooth cuticle, pseudocoelom, alimentary tract, coelomyarian musculature and lateral cords) within the glands and the lumen of the caecum and colon. (Intestinal ascariasis - *Anisakis* sp./*Contracaicum* sp. and cestodiasis - *Pseudophillidiae*)

Those tissues not described appear normal.

DIAGNOSIS

Chronic weight loss

Lung: Mild, multifocal, subacute to chronic lymphocytic, plasmacytic interstitial pneumonia, and bronchitis with intraleisional coccoid bacteria and filarial nematodes; possible *Parafilaroides* sp.

Skeletal muscle: Possible Sarcocystosis

Heart: Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, myocarditis with myocardiocyte necrosis

Liver: Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, hepatocellular necrosis

Tested on 08/10/25
Reported on 18/10/25 16:30
Referred on 06/10/25 by:

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm.No.:** [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

Colon and caecum: Intestinal ascardidiasis - *Anisakis* sp./ *Contracaecum* sp. and cestodiasis - *Pseudophillidiae*

Gastric ascaridiasis

Subcutaneous plerocercoids

COMMENTS

Filarid bronchopneumonia and secondary bacterial pneumonia (possibly *Streptococcus* sp.) contributed to morbidity for this animal. These findings may have contributed to the chronic weight loss but lack of feed abundance for the mother may also have been a contributing factor if this animal was still suckling. Testing at ACDP is pending to assess for intercurrent *Mycobacterium* sp. or *Brucella* sp. and Avian influenza infection.

The mild hepatocellular necrosis and myocardiocyte necrosis may be due to a bacteraemia secondary to the bacterial bronchopneumonia.

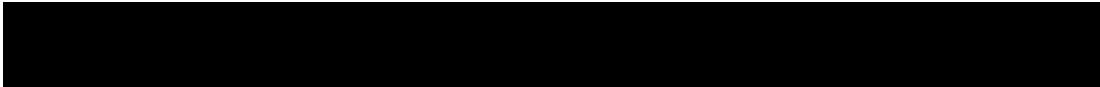
Minor findings

The *Sarcocystis* sp. found in the skeletal muscle is an incidental finding. *Sarcocystis* sp. have been identified in South American fur seal *Arctocephalus australis* in South America (Reisfeld et al 2019).

The gastric and intestinal ascaridiasis, intestinal cestodiasis and subcutaneous plerocercoid are incidental findings.

Reisfeld, L., SacristC., Machado, E.F., SA.M., Costa-Silva, S., Ewbank, A.C., Navas-SuP.E., Guerra, J.M., Barrel, J.D.S.P., RR.A. and Favero,

C.M., 2019. Toxoplasmosis and *Sarcocystis* spp. infection in wild pinnipeds of the Brazilian coast. *Diseases of Aquatic Organisms*, 136(3), pp.235-241.



Specialist Veterinary Anatomic Pathologist

Validated by [REDACTED]

Tested on 08/10/25
Reported on 18/10/25 16:30
Referred on 06/10/25 by:

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm.No.:** [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

NECROPSY REPORT
Additional comments 10/10/2025

CLINICAL HISTORY

Please refer to the clinical history on the request form. A brief summary of the clinical history;
On Saturday one dead baby seal was reported looking very unwell. When the ranger returned at 4pm on Sunday it was still alive. On Monday 6/10/25 at 8am the ranger found it dead on the beach.

SAMPLES SUBMITTED

One dead juvenile female Australian fur seal, *Arctocephalus pusillus*

NECROPSY FINDINGS

The animal is in moderate body condition and weighs 9.8kg and is 1m long. There are moderate post mortem autolytic changes. There is no subcutaneous or abdominal fat. There are two plerocercoids (3mm across) within the subcutaneous fat.

The lung is mottled red to pink with multiple areas, mildly depressed.

The stomach contains abundant acarids (likely *Anisakis* sp. or *Contracaecum* sp.) and scant mucus. The intestines contain scant pasty brown ingestra.

GROSS SUMMARY

Chronic weight loss
Possible bronchopneumonia
Gastric ascaridiasis
Subcutaneous plerocercoids

SAMPLES COLLECTED & TESTING

Lung, liver, spleen, heart, kidney, brain and oropharyngeal swab in VTM will be tested for AI by PCR at [REDACTED] and ACDP.

Fresh lung (10g), liver (20g), heart (10g), spleen (1g), kidney (20g), brain (10g) is stored frozen if biotoxin and brevetoxin testing is required.

Formalin fixed tissues will be processed for histopathology.

[REDACTED]

Tested on 08/10/25
Reported on 18/10/25 16:30
Referred on 06/10/25 **by:**
[REDACTED]

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm. No.:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

COMMENTS

Chronic weight loss contributed to morbidity for the animal. Could decreased feed abundance have impacted on the feed available from the dam for the pup ?

The gross changes in the lungs are suggestive of bronchopneumonia. Testing for Brucella sp. and Mycobacterium sp. at ACDP is recommended. Please contact the laboratory if the Chief Veterinary Officer approves this testing.

Testing for endemic bacterial pathogens in the lung and histopathology to clarify the gross findings and evidence of any intercurrent disease (14 slides are recommended for all tissues) are also recommended. Additional costs will apply. Please contact the laboratory if any of this testing is required.

Gastric ascariasis is a normal finding in seals. Subcutaneous plerocercoids are normal findings in fur seals.

10/10/2025

As requested, tissues will be processed for histopathology. Testing at ACDP will be done to investigate for Mycobacterium sp. and Brucella sp. infection in what appears to be a bronchopneumonia. There is no cost for this testing.

Microbiological culture of the lung for endemic non-notifiable pathogens is in progress at [REDACTED] Analytical Services Tasmania will be contacted for a quote for biotoxin and brevetoxin testing of lung, liver, spleen, heart, kidney, brain.

[REDACTED]

Specialist Veterinary Anatomic Pathologist

[REDACTED]

Validated by [REDACTED].

This email is confidential and may contain legally privileged information and copyright material. You may not disclose, copy, distribute, rely on, modify or use this email except as authorised by Clinical Laboratories Pty Ltd. If you have received this message in error, please notify us immediately by return email and delete this email. Any opinions expressed in emails are those of the individual author of the email and do not necessarily represent the views of Clinical Laboratories Pty Ltd. The sender is not responsible for any changes made to this email other than those made by the sender, or for the effect of any such changes on the meaning of the email. It is the responsibility of the recipient to virus check this email and any attachments.

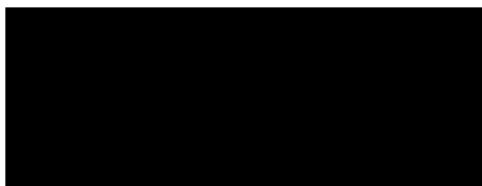


PATH RESULTS: SEAL, (Ma) [REDACTED]

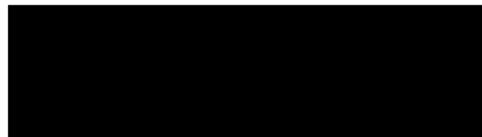
From [REDACTED]

Date Fri 17/10/2025 10:30 AM

To [REDACTED]



Tested on 08/10/25
Reported on 17/10/25 11:00
Referred on 06/10/25 by: [REDACTED]



Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm.No.:** [REDACTED] **Lab No.:** [REDACTED]

Samples tested as received

MICROBIOLOGY

SPECIMEN: Lung
ANIMAL ID: NO ID

MICROSCOPY

No bacteria seen.
Moderate leucocytes.

CULTURE

1. No growth aerobically or anaerobically after 48 hours incubation.

COMMENT: Brucella species NOT isolated after 7 days incubation.

Final Report _____
17/10/25
Validated by [REDACTED] Laboratory Scientist.



Outlook

PATH RESULTS: SEAL, (Ma)

From

Date Tue 18/11/2025 2:30 PM

To

Tested on 08/10/25
Reported on 18/11/25 15:00
Referred on 06/10/25 **by:**

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:

DOB: N/A

Collected: 06/10/25 08:00 Subm. No: [REDACTED] Lab No.:

Samples tested as received

REFERRED TEST

Disease/Test : Brucella species Isolation
Specimen Type: Lung, Liver, Spleen

RESULT : *Brucella* spp. was not isolated in all 3 samples.

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

to this email other than those made by the sender, or for the effect of any such changes on the meaning of the email. It is the responsibility of the recipient to virus check this email and any attachments.

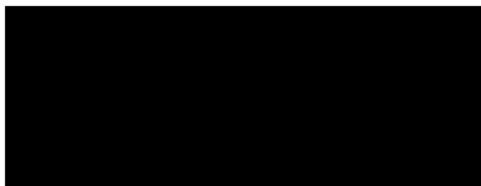


PATH RESULTS: SEAL, (Ma) [REDACTED]

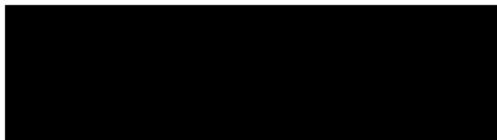
From [REDACTED]

Date Wed 29/10/2025 12:00 PM

To [REDACTED]



Tested on 08/10/25
Reported on 29/10/25 12:30
Referred on 06/10/25 by: [REDACTED]



Owner:

SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:

Marine Mammal

DOB: N/A

Collected: 06/10/25 08:00 Subm.No: [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

REFERRED TEST

Disease/Test : Pan-Mycobacterium 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.

REFERRED TEST

Disease/Test : Mycobacterium tuberculosis complex IS6110 - 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 08/10/25
Reported on 29/10/25 12:30
Referred on 06/10/25 by:

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **Subm.No.:** [REDACTED]

Lab No.: [REDACTED]

Samples tested as received

REFERRED TEST

Disease/Test : Mycobacterium avium complex 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.

REFERRED TEST

Disease/Test : Brucella sp. PCR
Specimen Type: Lung, Liver, Spleen

RESULT : All 3 samples 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.

This email is confidential and may contain legally privileged information and copyright material. You may not disclose, copy, distribute, rely on, modify or use this email except as authorised by Clinical Laboratories Pty Ltd. If you have received this message in error, please notify us immediately by return email and delete this email. Any opinions expressed in emails are those of the individual author of the email and do not necessarily represent the views of Clinical Laboratories Pty Ltd. The sender is not responsible for any changes made to this email other than those made by the sender, or for the effect of any such changes on the meaning of the email. It is the responsibility of the recipient to virus check this email and any attachments.

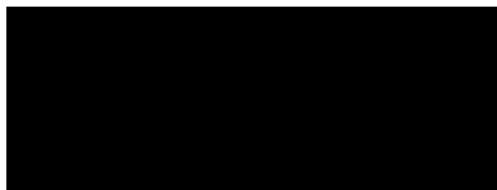


PATH RESULTS: SEAL, (Ma) [REDACTED]

From [REDACTED]

Date Mon 15/12/2025 10:00 AM

To [REDACTED]



Tested on 08/10/25
Reported on 15/12/25 10:30
Referred on 06/10/25 by: [REDACTED]



Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 **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

Validated by [REDACTED] Laboratory Scientist.

This email is confidential and may contain legally privileged information and copyright material. You may not disclose, copy, distribute, rely on, modify or use this email except as authorised by Clinical Laboratories Pty Ltd. If you have received this message in error, please notify us immediately by return email and delete this email. Any opinions expressed in emails are those of the individual author of the email and do not necessarily represent the views of Clinical Laboratories Pty Ltd. The sender is not responsible for any changes made to this email other than those made by the sender, or for the effect of any such changes on the meaning of the email. It is the responsibility of the recipient to virus check this email and any attachments.



PATH RESULTS: SEAL, (Ma) [REDACTED]

From [REDACTED]

Date Tue 14/10/2025 11:00 AM

To [REDACTED]

Tested on 08/10/25
Reported on 14/10/25 11:30
Referred on 06/10/25 by: [REDACTED]

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal
DOB: N/A

Collected: 06/10/25 08:00 Subm.No: [REDACTED] Lab No.: [REDACTED]

Samples tested as received

MOLECULAR DIAGNOSTICS

INFLUENZA A RNA PCR (REAL TIME REVERSE TRANSCRIPTASE)

Specimen type: Oropharyngeal (OP) swab & Tissue

SPECIMEN ID Type A H5 H7

OP SWAB	Not detected
LIVER	Not detected

SPLEEN	Not detected
KIDNEY	Not detected
LUNG	Not detected
BRAIN	Not detected
HEART	Not detected

NATA accreditation does not cover the performance of this test on non-avian species.

Validated by [REDACTED] Laboratory Scientist.

CERTIFICATE OF ANALYSIS

Customer: [REDACTED] Submission Description: Australian Fur Seal
Address: [REDACTED] Sample Received Date: 30/10/2025
Contract Number: [REDACTED]
Client Order Number: [REDACTED]
Program/Quote Reference: [REDACTED] Australian Fur Seal

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
[REDACTED]	Chemist	[REDACTED]	Section Head - Organic Chemistry

Test Information:

Method ID	Test Description	Date Commenced:
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	13-11-2025
3411A	Brevetoxins in Shellfish by LC-MS/MS	13-11-2025
3416	PST in Biota by LC-MS/MS (Boundy Method)	13-11-2025

CERTIFICATE OF ANALYSIS

Customer: [REDACTED] Submission Description: Australian Fur Seal
Address: [REDACTED] Sample Received Date: 30/10/2025
Contract Number: [REDACTED]
Client Order Number: [REDACTED]
Program/Quote Reference: [REDACTED] Australian Fur Seal

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
[REDACTED]	Chemist	[REDACTED]	Section Head - Organic Chemistry

Test Information:

Method ID	Test Description	Date Commenced:
3411	Lipophilic Toxins in Shellfish by LC-MS/MS	13-11-2025
3411A	Brevetoxins in Shellfish by LC-MS/MS	13-11-2025
3416	PST in Biota by LC-MS/MS (Boundy Method)	13-11-2025

Chemistry Test Results (Biota - Food)		Sample Description	Liver	Spleen	Kidney	Lung	Brain	Heart	
			Sampled Date/ Time	08/10/25 0:00	08/10/25 0:00	08/10/25 0:00	08/10/25 0:00	08/10/25 0:00	
3416	Method ID	Analyte	Units	367560	367561	367562	367563	367564	367565
		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*



Outlook

PATH RESULTS: SEAL, (Ma)

From [REDACTED]
Date Sat 22/11/2025 7:00 PM
To [REDACTED]

Tested on 08/10/25
Reported on 22/11/25 19:30
Referred on 06/10/25 **by:**

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal

Collected: 06/10/25 08:00 Subm. No: [REDACTED] Lab No.:

Samples tested as received

SUMMARY DIAGNOSES
Chronic weight loss

Lung: Mild, multifocal, subacute to chronic lymphocytic, plasmacytic interstitial pneumonia, and bronchitis with intralesional coccoid bacteria and filarial nematodes; possible *Parafilaroides* sp.

Skeletal muscle: Possible Sarcocystosis

Heart: Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, myocarditis with myocardiocyte necrosis

Liver: Mild, multifocal, subacute, lymphocytic, plasmacytic, neutrophilic, hepatocellular necrosis

Colon and caecum: Intestinal ascariasis - *Anisakis* sp./ *Contracaecum* sp., and cestodiasis - *Pseudophillidiae*

Gastric ascaridiasis

Subcutaneous plerocercoids

COMMENTS

Filarid bronchopneumonia and secondary bacterial pneumonia (possibly *Streptococcus* sp.) contributed to morbidity for this animal. Unfortunately the bacteria were not viable and microbiological cultures are negative. These findings may have contributed to the chronic weight loss but lack of feed abundance for the mother may also have been a contributing factor if this animal was still suckling. Testing at ACDP has excluded *Mycobacterium* sp. , *Brucella* sp. and Avian influenza infection.

The mild hepatocellular necrosis and myocardiocyte necrosis may be due to a bacteraemia secondary to the bacterial bronchopneumonia.

The *Sarcocystis* sp. found in the skeletal muscle is an incidental finding.

[REDACTED]

Specialist Veterinary Anatomic Pathologist

Tested on 08/10/25
Reported on 22/11/25 19:30
Referred on 06/10/25 **by:**

Referred on 06/10/25 by:

Owner:
SEAL
BROWNLOW BEACH
BROWNLOW 5223

Animal/s:
Marine Mammal

Collected: 06/10/25 08:00 Subm. No.: [REDACTED] Lab No.:

Samples tested as received

Validated by

This email is confidential and may contain legally privileged information and copyright material. You may not disclose, copy, distribute, rely on, modify or use this email except as authorised by Clinical Laboratories Pty Ltd. If you have received this message in error, please notify us immediately by return email and delete this email. Any opinions expressed in emails are those of the individual author of the email and do not necessarily represent the views of Clinical Laboratories Pty Ltd. The sender is not responsible for any changes made to this email other than those made by the sender, or for the effect of any such changes on the meaning of the email. It is the responsibility of the recipient to virus check this email and any attachments.