

Case No:

2023-0475

Date of visit:

24/10/2023

Time spent on site:

8 hrs

Main Inspector:

Site No:

FS1291

Site Name:

Caolas A Deas

Business No:

FB0119

Business Name:

Mowi Scotland Ltd

Case Types:

1 REP

2 DIA

3 VMD

4

5

6

Water Temp (°C):

12.2

Thermometer No:

T304

FHI 045 completed

N/A

Observations:

Region: WI

Water type: S

CoGP MA: W-5

Dead/weak/abnormally behaving fish present?

 If yes, see additional information/clinical score sheet.

Clinical signs of disease observed?

 If yes, see additional information/clinical score sheet.

Gross pathology observed?

 If yes, see additional information/clinical score sheet.

Diagnostic samples taken?

UNI/REG only - if unable to carry out intended visit detail reason below:

**Additional Case Information:**

Paperwork completed - 24/10/23. Site inspection and sampling conducted 25/10/23.

Site changed from 20 x 100m circles to 8 x 160m circles

Mortalities began to increase during end of August in to September and this was thought to correlate to drops in dissolved oxygen that the site experienced, when levels were at their lowest the site experienced DO as low as 65% in August and dropping below 70% in September. The site had experienced some increase in jellyfish this summer, but not to levels that directly impacted the stock on site. The decision was made to reduce the biomass in the cages and move fish to other sea sites.

Mortalities in Pen 8 increased substantially between weeks 40 and 41, however, this was actually due to the fish in Pen 8 during WK 40 having lower level mortalities and appeared healthier being moved to Sconser Quarry on Skye. The stock in pen 8 during WK 41 was actually a split of fish from pen 1. Site keeps one of the pens fallow to allow treated fish to be returned to a different pen, due to each pen requiring 3 cycles through the wellboat to treat a whole cage.

Mortalities are currently being ensiled on site and also disposed of to White Shore Cockles.

Only medicinal treatments used this cycle so far is SLICE (January 2023, April 2023 and July 2023). A further SLICE treatment has been scheduled to be 31/10/23. Site has been using a wellboat with FW and FLS system for treatments.

Multiple infectious agents have been identified by QPCR, *Piscirickettsia* has been identified in QPCR samples

Sea lice levels have increased, with numbers for WK 42 2.72 adult female *L. salmonis*. This was reportedly partly due to disruption in FW treatments due to adverse weather. The FW treatments have recommenced on 24/10/23

LUM mortality- WK 39 - 1,660 (4.44%), WK 40 - 3,330 (9.24%), WK 41 - 3,850 (11.88%), WK42 - 3,185 (11.15%)

WRA mortality - WK39 - 2,239 (2.34%), WK 40 - 7,949 (8.5%), WK41 - 6,763 (7.63%), WK 42 - 8,558 (10.46%)

Site had two FW source inputs - Loch Garry (most of these have been moved to Sconser Quarry) and Glenfinnan Ferguson transport vessel on site at time of inspection conducting mortality removal (uplift to basket and then transfer to storage tanks on vessel). Inter Atlantic also on site conducting FW/FLS treatment and splitting fish from Pen 7 to Pen 1. Fish sampled from pen 7 for VMD appeared healthy. Approximately 30-40 moribund fish observed in Pen 8, 20-30 observed in Pen 4 and the remaining pens had <10 moribund visible at time of inspection. Good visibility in the cages at time of inspection

It was reported that the fish moved to Sconser Quarry have tested positive for *Pasteurella skyensis*, however, stock on Caolas A Deas have continued to return negative results.

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Inspector(s):

**Registration/Authorisation Details**

1. Business/site details summary checked by site representative?  
2. Changes made to details?

Y  
Y

**Site Details (include cleaner fish for all sections)**

Total No facilities	8	Facilities stocked	7	No facilities inspected	8
Species	SAL	WRA	LUM		
Age group	2022 Q4	73,000	25,000		
No Fish	567,305	Mix	Mix		
Mean Fish Wt	3.165kg	Mix	Mix		
Next Fallow Date (Site)	June 2024	Next Input Date (Site)	2024 Q4		
Recent (last 4 wks) disease problems?		Y	Any escapes (since last visit)?	N	

If yes, detail:

**Movement Records**

1. Movement records available for inspection?  
2. Date of last inspection:  
3. Are records complete and correctly entered?  
4. Are movement records available for dead fish and waste?  
5. Are records complete and correctly entered?  
6. Are health certificates for introductions (outwith GB) available?

Y  
15/09/2021  
Y  
Y  
Y  
N/A

**Transport Records**

1. Are any movements carried out by (or on behalf) of the business (not using a STB)?  
If yes, is there a system in place for maintenance of transportation records?

**Mortality Records**

1. Mortality records available for inspection?  
2. How are mortalities disposed of?  
If other detail: White Shore Cockles  
3. Mortality records complete and correctly entered?  
WK 39 - 55,762 (8.26%), WK 40 - 44,400 (6.03%), WK 41 - 44,392 (4.96%),  
WK 42 - 51,110 (5.66%) - attributed to multiple factors (see additional information)  
4. Recent mortality (last 4 wks):  
5. Evidence of recent increased/atypical mortalities?  
If yes, facility nos/no mortality per facility/no stock per facility/reason:  
WK 42 - Pen 4 - 13,924 (14.44%), Pen 6 - 13,874 (14.74%) and Pen 8 - 7,885 (11.28%). WK 41 - Pen 4 - 14,446 (13.57%), Pen 6 - 10,508 (10.17%), Pen 8 - 3,679 (5.00%), WK 40 - Pen 4 - 4,831 (18.56%), Pen 6 - 6,071 (5.55%)  
6. Any other peaks in mortality during period checked?  
If yes, detail: Refer to mortality event spreadsheet  
7. Have increased (unexplained) mortalities been reported to vet or FHI?  
If yes, detail action:  
8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet.

**Treatments and Medicines Records**

1. Recent treatments (see comment)? Y  
 If yes, detail: T.M.S.

If other, detail: [Redacted]

2. Medicines records available for inspection? Y

3. Are records complete and correctly entered? Y

4. Are fish in a withdrawal period? Y

5. If yes, what treatment(s)? T.M.S.

If other, detail: [Redacted]

6. Are medicines stored appropriately? Y

**Biosecurity Records**

1. Biosecurity records available for inspection? [Redacted]

2. Has the manner and frequency of mortality removal, recording and safe disposal been considered? [Redacted]

3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any *increased (unexplained)* mortality at the site been included? [Redacted]

4. Has the action that will be taken in the event that the presence or suspicion of the presence of a listed disease is detected been included and *how and when* that will be notified to Scottish Ministers? [Redacted]

5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)? [Redacted]

6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of disease been covered (movement of staff, visitors, equipment, live or dead fish etc.)? [Redacted]

7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site? [Redacted]

8. Have the biosecurity procedures been adequately implemented on site? [Redacted]

If no, detail: [Redacted]

**Results of Surveillance**

1. Has any animal health surveillance been carried out by, or on behalf of, the business? Y

2. If yes, are results available for inspection? Y

3. Any significant results? Y

If yes, detail (if not detailed under recent disease problems). Detailed above

Records checked between: 15/09/21 to 24/10/23

Case no:	2023-0475	Site No:	FS1291	Date of visit/ Sampling:	24/10/2023	25/		
Priority samples:	VI	BA	PA	MG	HI			
Time sampling starts/ends:	12:30:00	13:00:00		Inspector:		VMD No.		
Environmental conditions:	1 Indoors	2	3	4	5			
Summary samples	HIST	Y	BA	Y	MG	VI	PA	Total Samples

## Add Fish/Pools - click

Pool/Fish No	F1	F2	F3	F4	F5							
Fish nos	1	2	3	4	5	6	7					
Pool Group												
Species	SAL											
Average weight	3.1000	3.1000	3.1000	3.1000	3.1000	3.1000	3.1000					
Sex												
Water Type	SW											
Stock Details	Glenfinnan (FS0742)											
Stock Origin												
Facility No	8	8	4	4	4	7	7					

10/2023 Additional Sample Information:

5

Total Tests assigned 3

3

Case no: 2023-0475 Site No: FS1291 Method of killing: Percussive

Date of visit: 24/10/2023 Inspector(s): Sheet Relevant: Y

S for strong presence: M for medium presence: W for weak presence

Fish Number		1	2	3	4	5				
Time sampled after death (if > 45 minutes)				1hr	1hr	1hr				
External Signs										
Behaviour	Moribund	M	M	M	S	S				
	Lethargic	M	M	M	M	M				
	Hanging vertical				M					
	Spiralling				M					
	Flashing									
	Loss of equilibrium				M					
Body	Dark									
	Distended abdomen									
	Anorexic									
	Scale Oedema									
Opercula	Shortened									
	Flared									
Haemorrhaging	Throat									
	Ventrum									
	Base of fins									
	Elsewhere									
Eyes	Exophthalmic									
	Enophthalmic (sunken)									
	Cataract									
	Haemorrhagic									
Gills	Pale	M	M	M	S	M				
	Zoned									
	Necrotic				S					
Lesions	Flank									
	Elsewhere									
Vent	Inflamed									
	Trailing faeces									
Lice Load	Estimate numbers									
Internal Signs										
Ascites	Clear	W								
	Bloody		W	M	W					
Oedema	In tissues									
Heart	Pale/anaemic									
	Granulomas									
	Deformed									
Liver	Petechial haem									
	Gross haem									
	Tissue breakdown									
	Enlarged									
	Colour number(s)	2	2	6	3	3				
	Granulomas									
	Lesions									
Pyloric caeca	Petechial haem									
	Tubules mauve									
	Lack of fat									
Spleen	Enlarged	W	M	S		W				
	Granulomas									
Gut	No food present									
	Yellow pseudo-faeces									
	External haem									
	Internal haem									
Body wall	Haemorrhaging									
Swim bladder	Haemorrhaging			W		W				
	Fluid filled									
Kidney	Swollen									
	Grey				W					
	Granular									
	Liquefied									
General	Parasites present									
	Anaemia									

Case no: 2023-0475

Date of visit: 24/10/2023

S for strong presence; M for medium presence; W for w

Fish Number									
Time sampled after death (if > 45 minutes)									
External Signs									
Behaviour	Moribund								
	Lethargic								
	Hanging vertical								
	Spiralling								
	Flashing								
	Loss of equilibrium								
Body	Dark								
	Distended abdomen								
	Anorexic								
	Scale Oedema								
Opercula	Shortened								
	Flared								
Haemorrhaging	Throat								
	Ventrum								
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Eyes	Exophthalmic								
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Gills	Pale								
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Vent	Inflamed								
	Trailing faeces								
Lice Load	Estimate numbers								
Internal Signs									
Ascites	Clear								
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Heart	Pale/anaemic								
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Swim bladder	Haemorrhaging								
	Fluid filled								
Kidney	Swollen								
	Grey								
	Granular								
	Liquefied								
General	Parasites present								
	Anaemia								

Additional comments:

Case No: 2023-0475

Date of visit: 24/10/2023

Site No: **FS1291**

Inspector: [REDACTED]

# Fish Health Inspectorate visit report

## Summary for information of site operator

Business no:	FB0119	Date of visit:	24/10/2023
Site no:	FS1291	Site name:	Caolas A Deas
Case no:	20230475	Inspector:	[REDACTED]

### Inspection under the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015

The above site was visited in accordance with the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015.

Samples were taken to be analysed for veterinary residues.

In addition, samples were taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

### Records

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated.

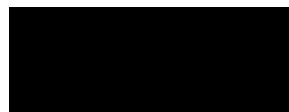
Medicine records were inspected and found to be adequately maintained.

Aquaculture animal and aquaculture animal product movement records were inspected and appeared to be adequately maintained.

Mortality records were inspected and found to be adequately maintained.

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

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Signed:

Date: 29/12/25

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at [Fish Health Inspectorate Service Charter - gov.scot \(www.gov.scot\)](https://www.gov.scot)

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UKAS Accredited Inspection Body - Type C No. 0269  
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB  
Telephone – 0131 244 3498  
Email – [ms.fishhealth@gov.scot](mailto:ms.fishhealth@gov.scot)  
[Fish Health Inspectorate Website](https://www.gov.scot)



# FISH HEALTH INSPECTORATE VISIT REPORT

## SUMMARY FOR INFORMATION OF SITE OPERATOR

**BUSINESS No** FB0119  
**SITE No** FS1291  
**CASE No** 20230475

**DATE OF VISIT** 24/10/2023  
**SITE NAME** Caolas A Deas  
**INSPECTOR** [REDACTED]

### Section 1: Summary

The above site was inspected following reports of mortalities exceeding the reporting threshold. Five fish were selected for diagnostic sampling.

Histopathology examination revealed mild, multifocal, hyperplastic branchitis associated with complex gill issues. Gill samples tested positive by qPCR for *Paranucleospora theridion* and salmon gill pox virus.

Chronic, multifocal splenitis and nephritis with Gram-negative bacteria within few glomeruli also observed (potentially associated with bacterial infection).

*Vibrio* sp. was identified on plates taken from kidney material of fish 1 and 2 and from gill material of fish 1,3,4 and 5. The level and purity would not suggest that this bacterium would be implicated in fish morbidity.

Please contact myself or the duty inspector should you require any further information, have any queries regarding this report or if any problems develop.

### Section 2: Case Detail

#### Observations

The site was inspected following reports over the mortality reporting threshold for a three week period, week beginning 25/09/23 - 55,762 (5.66%), week beginning 02/10/23 – 44,400 (4.96%) and week beginning 09/10/23 – 44,392. Mortalities the week prior to site inspection, week beginning 16/10/23, were 51,110 (8.26%). Mortalities on site were attributed to anaemia and treatment losses.

During the inspection of stock, visibility was good and between 10 and 40 moribund fish were visible per cage. All five fish removed for sampling were moribund and lethargic, with pale gills. F4 was hanging vertically, spiralling and displayed a loss of equilibrium.

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F1 had clear ascites, with F2, F3 and F4 having bloody ascites present. F1, F2, F4 and F5 had pale livers. F1 – F3 and F5 had enlarged spleens, F4 had a grey kidney and F3 and F5 had haemorrhaging on the swim bladder.

## Samples

Samples were collected from five fish according to the table below:

Fish number	Facility number	Species	Stage	Origin
F1 & F2	8	Atlantic Salmon	2022 Q4; 3.1 kg	Glenfinnan (FS0742)
F3 - F5	4	Atlantic Salmon	2022 Q4; 3.1 kg	Glenfinnan (FS0742)

**Bacteriology:** Kidney and gill material from F1 - F5 was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated from fish one to five.

*Vibrio* sp. (kidney F1 and F2, gill F1, F3, F4 and F5)

The level and purity would not suggest that this bacterium would be implicated in fish morbidity.

**Virology:** Tissue samples were tested for segments of nucleic acid indicative of the presence of the pathogens specified below using real-time PCR (qPCR).

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	20.96	30.66	30.51	30.64	POSITIVE
F2	21.26	25.70	25.66	25.67	POSITIVE
F3	20.98	23.56	23.27	23.50	POSITIVE
F4	21.12	26.47	26.39	26.54	POSITIVE
F5	21.16	27.54	27.69	27.65	POSITIVE

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), infectious salmon anaemia virus (ISAV),

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piscine myocarditis virus (PMCV), salmonid alphavirus (SAV) and viral haemorrhagic septicemia virus (VHSV).

**Parasitology:** Tissue samples were tested for segments of nucleic acid indicative of the presence of the parasites specified below using real-time PCR (qPCR).

*Paranucleospora theridion*

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	20.83	33.71	34.03	33.60	POSITIVE
F2	21.03	34.19	35.11	35.16	POSITIVE
F3	20.93	33.98	33.83	33.77	POSITIVE
F4	21.26	34.07	34.04	33.97	POSITIVE
F5	21.27	32.25	32.16	32.27	POSITIVE

The samples tested negative for *Neoparamoeba perurans* (AGD).

**Histology:** Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from F1 to F5. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Gill: Lamellar hyperplasia and fusion, mild, multifocal (F1) and F3 more in the filament tips associated with some cellular necrosis, some leucocyte inflammation and few apoptotic cells shedding off. F3 also displayed cell debris associated with Gram-negative bacteria. Occasional basophilic epithelial inclusions (likely epitheliocystis) observed in F1, F2. Some aneurysmal dilation/telangiectasia (F1, F2, F3). Some fish displayed post-mortem artefacts (F3).

Skin & Muscle: Within the normal range.

Heart: Myocarditis multifocal, very minor to minor (F1, F3, F5) and few thrombi (F3). Epicarditis, mild (F1-F5).

Gut and pyloric caeca: Peritonitis, mild, multifocal (F3, F4). Moderate cellular sloughing potentially associated with autolysis artefacts (F1-F3, F5).

Pancreas: Within the normal range.

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Liver: Hepatocellular necrosis, mild, multifocal (F1, F2, F4). Some cuffing observed in all fish. Hepatocellular vacuolation (macroviscules), moderate, diffuse (F4). F5 displayed some multifocal sinusoidal dilation filled with leucocyte cells in circulation.

Kidney: Some, diffuse, inflammatory cell infiltrate observed in the interstitial cell (haematopoietic) (F1, F2, F3, F5) and interstitial necrosis (F2, F5). F1, F2, F3, F5 displayed few Gram-negative bacteria in few glomeruli.

Spleen: Foci of neutrophil infiltration with areas of necrosis and haemorrhage (F1). Capsulitis (F3 & F4). F3 displayed foci of granulomatous inflammation displaying centrally splendore-hoeppli reaction (homogeneous eosinophilic material). Some cuffing (F2).

Please contact myself or the duty inspector should you require any further information or have any queries regarding this report.

Signed:

A large black rectangular redaction box covering a signature.

Date: 29/12/25

Fish Health Inspector

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2023-0475 – Caolas A Deas



Fish 1 and 2



F1 - Gill



F1 - Internal



F2 - Gill



F2 - Internal



F3 - Gill



F3 - Internal



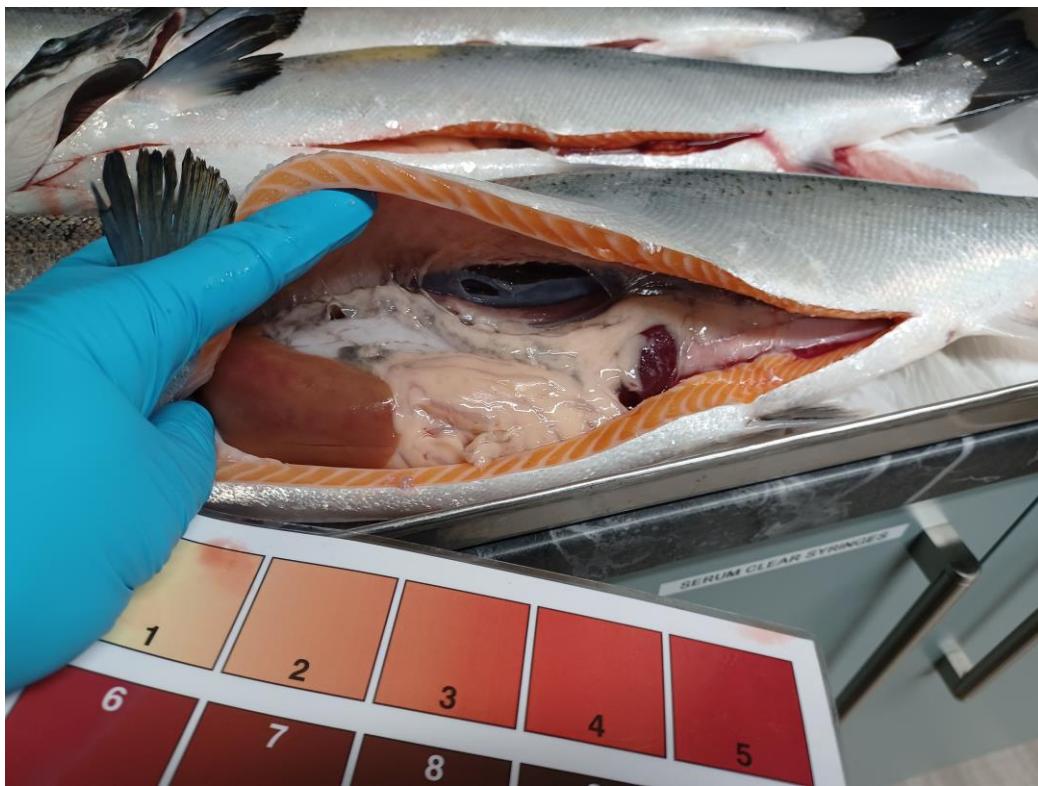
F4 - Gill



F4 – Internal



F5 - Gill



F5 - Internal