

Case No:	<input type="text" value="2023-0237"/>	Date of visit:	<input type="text" value="01/08/2023"/>			
Time spent on site:	<input type="text" value="3.5 hours"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS0892"/>	Site Name:	<input type="text" value="Clachbreac"/>			
Business No:	<input type="text" value="FB0061"/>	Business Name:	<input type="text" value="Landcatch Natural Selection Ltd"/>			
Case Types:	1 <input type="text" value="DIA"/>	2 <input type="text" value="REP"/>	3 <input type="text" value=""/>	4 <input type="text" value=""/>	5 <input type="text" value=""/>	6 <input type="text" value=""/>
Water Temp (°C):	<input type="text" value="15.5"/>	Thermometer No:	<input type="text" value="Site"/>	FHI 045 completed	<input type="text" value="N/A"/>	
Observations:	Region:	ST	Water type:	F	CoGP MA:	
Dead/weak/abnormally behaving fish present?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Clinical signs of disease observed?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Gross pathology observed?	<input type="text" value="Y"/>	If yes, see additional information/clinical score sheet.				
Diagnostic samples taken?	<input type="text" value="Y"/>					
UNI/REG only - if unable to carry out intended visit detail reason below:						
<input type="text" value=""/>						

Additional Case Information:

FHI was notified in wk 29 that site was experiencing increased mortalities in recently vaccinated stock. 8 tanks were vaccinated and graded into outdoor tanks on 10th July, with mortalities first observed on the evening of the 14th July. Fish were presenting with bloodshot eyes and reddened vents, both observed by husbandry staff and internal & external vets.

Stock origin: Stofinfiskur (organic)

Indoor tanks (3/12) are stocked with fish at 30g, 15883, unvaccinated

Outdoor tanks (8/9) are stocked with fish at 40g, 176538, vaccinated (planned move out of facility in Wk35)

Fish moved from Ormsary at 10g to Clachbreac in Wk 20 2023.

Mortality since input to site in Wk 20, up until Wk28 very low.

Site uses flow through system. Water quality monitoring indicated that all parameters were within acceptable limits (DO, Temp).

Vaccine used: Microjet 6 and PD1 in combination

Vaccination audit indicated the depth of needle penetration was satisfactory, however blood was observed at entry point of needle.

From the vaccination record, calibration comments described depth and site of vaccination and indicated no issues.

Mortalities have been observed to have severely eroded fins and fungus.

Treatment records indicate that formalin was last used 25/7/2023 to flush fish for fungus signs following vaccination (post vaccination plan). Formalin administered in all stocked vaccinated tanks.

Vaccinated fish are due to go to sea in 4 weeks time. Internal and external health checks will be conducted prior to output. Fish vet checks only occur at site when necessary/issues arise with health of fish.

Fish health reports seen following histology and bacteriology samples taken on 17/07/2023. No positive samples found and Saprolegnia suggested as primary cause for fish sampled in tanks B1 and B7.

Two moribund fish with severe loss of equilibrium were observed in tanks B4 and B7 respectively and removed for diagnostic sampling.

No other moribund fish observed during site inspection.

Site thermometer used for biosecurity reasons.

Case No: **2023-0237** Site No: **FS0892**
 Date of Visit: **01/08/2023** Inspector(s): **[REDACTED]**

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	24	Facilities stocked	11	No facilities inspected	
Species	SAL				
Age group	2023				
No Fish	192,421				
Mean Fish Wt	37g				
Next Fallow Date (Site)	End February 2024	Next Input Date (Site)	May 2024		
Recent (last 4 wks) disease problems?		Y	Any escapes (since last visit)?		
If yes, detail:	Post vaccination damage, Saprolegnia sp.				

Movement Records

1. Movement records available for inspection?
 2. Date of last inspection: **27/03/2023**
 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?

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? **Other (detail)**
 If other detail: **Fish are bagged and frozen and then incinerated at Ormsary Site (weekly)**
 3. Mortality records complete and correctly entered?
 4. Recent mortality (last 4 wks): **2023: Wk30, 2495, 1.28%; W29, 28771, 12.94%; Wk28, 10117, 4.44%; 0.06%;**
 5. Evidence of recent increased/atypical mortalities?
 If yes, facility nos/no mortality per facility/no stock per facility/reason:
Highest increased mortalities observed in tank 1, 6, 7. Consistent increased mortalities also affecting all other tanks outside tanks. Tank B1, B6 and B7 have lost 25.5% (8107), 21.8% (6023) and 48.4%(12693) of stock respectively t (01/08/2023).
 6. Any other peaks in mortality during period checked?
 If yes, detail:
 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)?

If yes, detail:

Formalin,
T.M.S

If other, detail:

2. Medicines records available for inspection?

3. Are records complete and correctly entered?

4. Are fish in a withdrawal period?

5. If yes, what treatment(s)?

Formalin, T.M.S

If other, detail:

6. Are medicines stored appropriately?

Biosecurity Records

1. Biosecurity records available for inspection?

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

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?

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?

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

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.)?

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

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

If no, detail:

Results of Surveillance

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

2. If yes, are results available for inspection?

3. Any significant results?

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

Records checked between:

15/05/2023-01/08/2023

24
N
Y
Y
N/A
N/A
Y
Y
Y
Wk27, 148,
Y
of fish in o date
N
N/A
Y

Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No	F1	F2										
Fish nos	1	2										
Pool Group												
Species	SAL	SAL										
Average weight	37g	37g										
Sex	N/A	N/A										
Water Type	FW	FW										
Stock Details	Stock Origin	Ormsary Hatchery (FS0681)	Ormsary Hatchery (FS0681)									
	Facility No	B4	B7									

Case no: 2023-0237

Site No: FS0892

Method of killing: Percussive

Date of visit: 01/08/2023

Inspector(s):

Sheet Relevant: Y

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

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

Additional comments:

Results

Microbiology: Kidney, spleen and lesion material from two fish were inoculated onto appropriate media for the isolation of microbes.

The following were isolated from F1 and F2:

- *Aeromonas* sp.: F1 & F2 (Kidney), F1 (Lesion)
Saprolegnia sp.: F1 (Lesion)

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

Infectious pancreatic necrosis virus (IPNV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	15.11	35.63	37.19	36.51	POSITIVE
F2	14.37	33.66	33.63	35.00	POSITIVE

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), salmonid alphavirus (SAV) and viral haemorrhagic septicemia virus (VHSV).

Parasitology: Fins were collected to determine the presence of *Gyrodactylus salaris* using light microscopy.

No *G. salaris* parasites were detected in the samples examined.

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

Histopathological examination revealed the following:

Gill: Within normal range.

Skin & Muscle: Within normal range.

Heart: Very mild, multifocal myositis (F2), epicarditis, moderate (F2).

Gut and pyloric caeca: Minor peritonitis (F2).

Pancreas: Within normal range.

Liver: Capsulitis and cuffing (F1), minor cuffing in F2.

Kidney: Minor the interstitial cell (haemopoietic) necrosis (F2).

Spleen: Cuffing, multifocal (F2).

Signed:



Fish Health Inspector

Date: 04/10/2023

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) R09

UKAS accredited testing laboratory No. 1964
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - ms.fishhealth@gov.scot
Website - www.gov.scot/Topics/marine/science

Diagnostic Samples Photos: 2023-0237



Figure 1 Overview of a) fish 1 and b) fish 2. Scalpel for scale



Figure 2 Underside of fish 1



Figure 3 Underside of fish 2



Figure 4 Gill of fish 1



Figure 6 Internal view of fish 1



Figure 5 Internal view of fish 2 (post sampling)

Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:
 Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: OR Water type: S CoGP MA: O-3

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:

Stock on site from Pegal Bay and Kirk Noust. (Stofnfiskur and Aquagen stock). Site transferred fish on in Wk30 2023.

Organic site.

Hydrolicer treatment conducted in March 2023, before end of crop (previous production cycle followed wk 24). Fish transferred from Pegal via FW.

Only T.M.S used so far on site as a medicinal treatment.

Site was inspected following confirmation of BKD at Chalmer's Hope, which is within one tidal excursion for inspected site. The purpose of the inspection was to determine whether any fish were presenting with signs of clinical BKD. No fish were seen with signs of clinical BKD.

During site inspection, it was difficult to see the fish as water was dark and fish lower down in the water column. Two moribund fish were observed on the day of the inspection. These were removed and sampled for diagnostics.

Case No: **2023-0365** Site No: **FS1198**
 Date of Visit: **22/08/2023** Inspector(s): **[REDACTED]**

Registration/Authorisation Details

- 1. Business/site details summary checked by site representative? **Y**
- 2. Changes made to details? **N**

Site Details (include cleaner fish for all sections)

Total No facilities	16	Facilities stocked	16	No facilities inspected	16
Species	SAL				
Age group	2022 S0				
No Fish	471,529				
Mean Fish Wt	1.59kg				
Next Fallow Date (Site)	End June/July 2024		Next Input Date (Site)	August 2024	
Recent (last 4 wks) disease problems?			N	Any escapes (since last visit)?	N
If yes, detail:	[REDACTED]				

Movement Records

- 1. Movement records available for inspection? **Y**
- 2. Date of last inspection: **07/02/2023**
- 3. Are records complete and correctly entered? **Y**
- 4. Are movement records available for dead fish and waste? **Y**
- 5. Are records complete and correctly entered? **Y**
- 6. Are health certificates for introductions (outwith GB) available? **N/A**

Transport Records

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

Mortality Records

- 1. Mortality records available for inspection? **Y**
- 2. How are mortalities disposed of? **Other (detail)**
- If other detail: **Pelagia**
- 3. Mortality records complete and correctly entered? **Y**
- 4. Recent mortality (last 4 wks): **2023: Wk34, 0.14%, 670; Wk33, 0%,0; Wk32, 0.15%, 408; Wk 31, 0%, 0; Wk30, 0.14%, 393**
- 5. Evidence of recent increased/atypical mortalities? **N**
- If yes, facility nos/no mortality per facility/no stock per facility/reason: **[REDACTED]**
- 6. Any other peaks in mortality during period checked? **N**
- If yes, detail: **[REDACTED]**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? **N/A**
- If yes, detail action: **[REDACTED]**
- 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet. **N/A**

Treatments and Medicines Records

- 1. Recent treatments (see comment)? Y
 If yes, detail: T.M.S,
 If other, detail:
- 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:
- 6. Are medicines stored appropriately? Y

Biosecurity Records

- 1. Biosecurity records available for inspection?
- 2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?
- 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?
- 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?
- 5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?
- 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.)?
- 7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?
- 8. Have the biosecurity procedures been adequately implemented on site?
- If no, detail:

Results of Surveillance

- 1. Has any animal health surveillance been carried out by, or on behalf of, the business? N
- 2. If yes, are results available for inspection? Y
- 3. Any significant results? N
 If yes, detail (if not detailed under recent disease problems).

Records checked between: 07/02/2023-25/08/2023

Case no: Site No: Date of visit/
 Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No	F1	F2										
Fish nos	1	2										
Pool Group	P1	P2										
Species	SAL	SAL										
Average weight	1.3kg	1.3kg										
Sex	N/A	N/A										
Water Type	SW	SW										
Stock Details		Kirk Noust (FS0645)	Kirk Noust (FS0645)									
	Stock Origin											
Facility No	5	16										

Case no: 2023-0365

Site No: FS1198

Method of killing: Percussive

Date of visit: 22/08/2023

Inspector(s):

Sheet Relevant: Y

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

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

Additional comments:

F2- Spleen rough texture and dry looking. See photos.

Results

Bacteriology: Kidney, gill, spleen and lesion material from F1 and F2 were inoculated onto appropriate media for the isolation of bacteria.

No significant bacteria were isolated.

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

Salmonid alphavirus (SAV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	15.46	27.70	27.88	27.43	POSITIVE
F2	15.76	24.73	24.47	24.39	POSITIVE

Piscine reovirus (PRV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	18.02	36.57	36.08	36.65	POSITIVE

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), infectious salmon anaemia virus (ISAV), viral haemorrhagic septicemia virus (VHSV), piscine myocarditis virus (PMCV) and salmon gill poxvirus (SGPV).

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	18.88	25.27	25.35	25.52	POSITIVE
F2	18.74	24.29	24.53	24.42	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 two fish. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

Tissues from 2 Atlantic salmon were examined by light microscopy. The following histopathological changes were observed:

Gill: Filament hyperplasia, mild, multifocal, mainly at the tips (F1 & F2). Some aneurysmal dilation/telangiectasia (F1), free blood among gill filament observed in all fish (like due to persecutive stunning).

Skin & Muscle: Skeletal red muscle degeneration, moderate, multifocal (F1, F2).

Heart: Necrotising myocarditis, mild, multifocal (F1 & F2) and moderate, multifocal, peritonitis (F1 & F2).

Gut and pyloric caeca: Absence of adipose tissues observed in F1 and some peritonitis observed in both fish.

Pancreas: Moderate inflammation of the pancreatic periacinar tissue (F1).

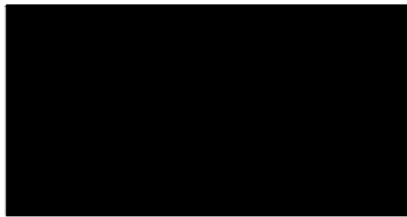
Liver: Minor area of necrosis (F1).

Kidney: Within the normal range

Spleen: Slightly congested in all fish.

Brain: Not sampled.

Eye: Not sampled.



Signed:

Date: 04/10/2023

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 \(www.gov.scot\)](http://www.gov.scot/Topics/marine/science)



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0095	DATE OF VISIT	22/08/2023
SITE No	FS1198	SITE NAME	South Cava
CASE No	20230365	INSPECTOR	[REDACTED]

Statutory Inspection

The above site was inspected as it is located within one tidal excursion of a site where the presence of bacterial kidney disease (BKD) has been confirmed.

All epidemiological units were inspected. No clinical signs associated with BKD were observed.

If clinical signs of BKD are observed on the site, the Inspectorate must be informed immediately.

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



Signed:

Fish Health Inspector

Date: 25/08/2023

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](https://www.gov.scot/policies/fish-health-inspectorate/) (www.gov.scot)

Diagnostic Sampling Photos: 20230365



Figure 1 Overview of Fish 1



Figure 2 Internal view of fish 1



Figure 3 view of gills of fish 1



Figure 4 Overview of fish 2. Eye damage due to percussive method of killing.



Figure 6 View of gills of fish 2



Figure 5 internal view of fish 2

Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:
 Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: SH Water type: S CoGP MA: S-4

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:

Only 3 pens currently stocked with locally caught wild wrasse but remaining pens will be stocked in the coming months. Weights range from 22g to 336g. Wrasse first brought on site week 34 (21/08) 2023.

Stock on site looking in good condition with only 1 lethargic fish observed. Fish removed for vmd sampling showed no clinical signs of disease or gross pathology.

Three pieces of information found to be missing from the FMS:

Circumstances under which biological controls and cleanerfish are to be used.

Dates by which the area or individual farm will be fallow and the earliest date when a farm or area may be restocked.

Whether one or more year classes may be stocked onto sites covered by the agreement or statement.

This information was however available in the sites VHWP and husbandry manual.

Case No: 2023-0370

Site No: FS0903

Date of Visit: 29/08/2023

Inspector(s):

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	12	Facilities stocked	12	No facilities inspected	12
Species	SAL	WRS			
Age group	2022 S0	wild			
No Fish	528,572	5,321			
Mean Fish Wt	1.93kg	0.08kg			
Next Fallow Date (Site)	May 2024		Next Input Date (Site)	Sep/Oct. 2024	
Recent (last 4 wks) disease problems?			N	Any escapes (since last visit)?	N
If yes, detail:					

Movement Records

- 1. Movement records available for inspection? Y
- 2. Date of last inspection: 21/07/2021
- 3. Are records complete and correctly entered? N
- 4. Are movement records available for dead fish and waste? Y
- 5. Are records complete and correctly entered? Y
- 6. Are health certificates for introductions (outwith GB) available? N/A

Transport Records

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

Mortality Records

- 1. Mortality records available for inspection? Y
- 2. How are mortalities disposed of? Incinerated - Shetland Waste to Energy
- If other detail:
- 3. Mortality records complete and correctly entered? Y
- 4. Recent mortality (last 4 wks): Wk 31 - 302 (0.01%), wk 32 - 460 (0.1%), wk 33 - 646 (0.1%), wk 34 - 300 (0.1%)
- 5. Evidence of recent increased/atypical mortalities? N
- If yes, facility nos/no mortality per facility/no stock per facility/reason:
- 6. Any other peaks in mortality during period checked? N
- If yes, detail:
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? N/A
- If yes, detail action:
- 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet. Y

Treatments and Medicines Records

1. Recent treatments (see comment)?	<input type="checkbox"/>	Y
If yes, detail:	Slice, T.M.S	
If other, detail:		
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	Y
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	Slice, T.M.S	
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>	Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	Y
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.)?	<input type="checkbox"/>	Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	Y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	Y
If no, detail:		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	Y
2. If yes, are results available for inspection?	<input type="checkbox"/>	Y
3. Any significant results?	<input type="checkbox"/>	N
If yes, detail (if not detailed under recent disease problems).		

Records checked between:	27/07/2021 - 29/08/2023
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Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No												
Fish nos	1	2	3	4								
Pool Group												
Species	SAL	SAL	SAL	SAL								
Average weight	1.9300	1.9300	1.9300	1.9300								
Sex	N/A	N/A	N/A	N/A								
Water Type	SW	SW	SW	SW								
Stock Details		Gletness (FS1099)	Gletness (FS1099)	Gletness (FS1099)	Gletness (FS1099)							
	Stock Origin											
Facility No	1	6	9	10								

Case Number:	2023-0370	Site No:	FS0903	Insp:		
Date of Visit	29/08/2023	No of movements/supp./dest.			Score	
Live fish movements		0	1-5	6-10	>10	
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	0
	Number of suppliers	0	5	10	14	0
Movements off	Frequency of movements off	0	3	6	10	10
	Number of destinations	0	3	6	10	3
Exposure via water	Site contacts	0	1-5	6-10		
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0				
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4		4
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6		
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8		
Management practices		None	Secure	Unsecure		
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2		0
On farm processing within the rules of the directive	No on farm processing	0				0
	Processing own fish (re-cycling risk)	1				
	Processing fish from MS of equivalent status	2				
	Processing fish from zone or compartment of equivalent status	4				
	Processing fish from Category III farm	8				
	Processing fish from Category V farm	10				
Disposal of fish and fish by-products	Site's own waste only processed.	0				0
	Common processes with other farms	3				
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
Biosecurity	Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating from single shorebase	0	1	2		0
	Sites sharing staff and equipment	0	1	2		0
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
CoGP/Regulator						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
Total Rank					17	MEDIUM

Case No: **2023-0370**

Site No: **FS0903**

Sea Lice Inspection (Seawater Sites Only)

- 1. Has the site experienced sea lice problems in the previous 4 years?
- 2. Is the CoGP Farm Management Area (or equivalent) followed synchronously on a single year class basis?
- 3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
- 4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
- 5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
- 6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
- 7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
- 8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
- If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
- 9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
- 10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
- 11. Has any other action been taken (where applicable)?
- 12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
- 13. Are treatments, where conducted, carried out in cooperation between participating farms?
- 14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
- 15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
- 16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

- 1. Has the site experienced equipment damage due to predators in the current or previous production cycles?
- 2. Are measures in place to mitigate against the predation experienced on site? (Detail below)

Double Nets (outer net is SealPro), Top Nets, Tensioned Nets

If other, detail below:

- 3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection?
- If Yes proceed with questions 4 – 9. If No skip to question 10
- 4. Have these been reported to Scottish Ministers?
- 5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
- 6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
- 7. Were methods (if any) used to recover escapees? If yes give detail
- 8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
- 9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
- 10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s)

Case No: 2023-0370

Site No: FS0903

Date of Visit: 29/08/2023

Inspector: [REDACTED]

Point of Compliance

1. Is the farm under inspection located within a farm management area?

If N, no further questions require completion.

Points of Compliance for Both Farm Management Agreements and Statements

2. Has a current farm management agreement or statement (FMAg/S) been prepared?

3. Is the current FMAg/S available for inspection?

4. Does the FMAg/S identify the relevant farm management area?

5. Does the FMAg/S identify the fish farm site(s) to which it applies?

6. Does the FMAg/S identify the date of commencement of the agreement or statement?

7. Does the FMAg/S identify the date of review?

Arrangements for Fish Health Management

8. Does the FMAg/S identify the minimum health standards for the stocks to be introduced to the area or farm?

9. Does the FMAg/S identify the vaccination requirements for stocks held in the area or farm?

10. Does the FMAg/S identify the species of fish which may be stocked into the area or farm?

11. Does the FMAg/S identify the maximum stocking density of any pen on any farm in the area or the individual farm?

12. Does the FMAg/S identify the arrangements for the storage and disposal of any dead fish from any fish farm in the area or the individual farm?

Arrangements for The Management of Sea Lice

13. Does the FMAg/S identify arrangements for the sharing of data on sea lice numbers and treatments?

14. Does the FMAg/S identify the availability and the use of medicines on farms covered by the agreement of statement?

15. Does the FMAg/S identify any requirements for the sensitivity testing of available treatments for sea lice on farms in the area or individual farms?

16. Does the FMAg/S identify the circumstances under which biological controls and cleaner fish are to be used on farms in the area or individual farms?

17. Does the FMAg/S identify the arrangements for synchronous treatments on farms within the area?

Live Fish Movements

18. Does the FMAg/S identify the circumstances when live fish may be introduced or removed from the area or farm?

19. Does the FMAg/S identify the arrangements for the movement of live fish on and off sites in the area or individual farms?

Harvesting

20. Does the FMAg/S identify acceptable harvest practices on farms in the area or individual farms?

Fallowing

21. Does the FMAg/S identify the dates by which the area or individual farm will be fallow and the earliest date when a farm or area may be restocked?

22. Does the FMAg/S identify whether one or more year classes may be stocked onto sites covered by the agreement or statement?

23. Does the FMAg/S identify whether broodstock or potential broodstock are to be kept on any site covered by the agreement or statement?

Point of Compliance for Farm Management Agreements Only

24. Does the farm management agreement include arrangements for persons to become, or cease to be, parties to the agreement?

Management and operation

25. Is the fish farm being managed and operated in accordance with the agreement or statement?

26. What is the version no/date of issue of the FMAg/S?

FMS doesn't specify circumstances for bringing cleanerfish onto site but it does in the VHWP. FMS doesn't include dates for fallow periods but is in the sites VHWP. FMS also doesn't include whether it's a single yearclass area or not but is in the Salmon Husbandry Manual.

Site No: FS0903

Case No: 2023-0370

Nature of non-compliance:

Action taken (FHI):

Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0125	DATE OF VISIT	29/08/2023
SITE No	FS0903	SITE NAME	Swining Voe 3
CASE No	20230370	INSPECTOR	[REDACTED]

Case completion report

Recommendations in relation to the above case were made for implementation by 12/10/2023. Following submission of the required documentation, evidence has now been provided to the Fish Health Inspectorate to demonstrate that the recommendations have been implemented.

This case will now be closed. This site may be subject to further audit and recommendations in the future.

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

Signed:

[REDACTED]

Date: 13/10/2023

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/policies/fish-health-inspectorate/)



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	FB0125	DATE OF VISIT	29/08/2023
SITE NO	FS0903	SITE NAME	Swining Voe 3
CASE NO	20230370	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

Aquaculture animal and aquaculture animal product movement records were inspected and found to be inadequately maintained.

Mortality records were inspected and found to be adequately maintained.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Directorate were available for inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

The following points were raised with the site representative during the inspection:

- FS numbers must be recorded in the source/destination section of the movement record book, to allow for better traceability of stocks. The source site is to be recorded for

R25

UKAS accredited testing laboratory No. 1964
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel - 0131 244 3498 Email - ms.fishhealth@gov.scot
Website - <https://www.gov.scot/policies/fish-health-inspectorate/>

movements onto site while the final destination is to be recorded for movements off of site. It was discussed with the site representative that this would be recorded in future. No further action is required.

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

Medicine records were inspected and found to be adequately maintained.

Samples were taken to be analysed for veterinary residues.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, with respect to section 3 regarding parasites (sea lice), section 4A regarding fish farm management agreements and statements and section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory with regards to parasites and containment and escapes.

The farm management statement was inspected and found to be inadequately maintained. Please see the attached annex detailing the points that must be addressed.

Please ensure that these points have been addressed by 12/10/2023. Records or documentation demonstrating that these points have been addressed should be sent to the Fish Health Inspectorate (contact details below). The site may be subject to further inspection or enforcement action should the appropriate action regarding the above points not be taken within the time period stipulated.

Please contact myself or the duty inspector should you require any assistance or clarification in implementing any requirement or recommendation detailed in this report.

Signed:



Date: 12/09/2023

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/policies/fish-health-inspectorate/)

Annex - The Aquaculture and Fisheries (Scotland) Act 2007

To ensure compliance with the Aquaculture and Fisheries (Scotland) Act 2007, as amended, the following points must be addressed in the farm management statement

The statement or agreement must include arrangements for;

- The management of parasites⁽²⁾
This must include arrangements for the use of biological controls and cleaner fish.
- Fallowing of the farms after harvesting
This must include the dates for fallowing of the area, the earliest date of restocking, identify whether one or more year classes may be stocked onto sites covered.

⁽¹⁾Farm management area means an area specified as such in the Code of Good Practice for Scottish Finfish Aquaculture

⁽²⁾Parasites as defined in The Aquaculture and Fisheries (Scotland) Act 2007 which means *Caligus elongatus* and *Lepeophtherius salmonis*

Case No: 2023-0371 Date of visit: 23/08/2023

Time spent on site: 4h Main Inspector: [REDACTED]

Site No: FS0134 Site Name: Glenkens
Business No: FB0134 Business Name: Kames Fish Farming Ltd

Case Types: 1 REG 2 DIA 3 REP 4 [] 5 [] 6 []

Water Temp (°C): 16.2 Thermometer No: T173 FHI 045 completed []

Observations: Region: DG Water type: F CoGP MA: []

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:
water temperature too high and ECI not due until next year

Additional Case Information:

Site inspected following reports of increased mortality due to PKD and RTFS. Mortalities had been relatively low since the last inspection however in week 29 mortalities became elevated and have remained high since.

Peaks in mortality: week 29 2477 (1.59%), wk 30 5709 (2.29%), wk 31 2811 (0.92%), wk 32 12768 (4.3%), wk 33 17717 (6.28%) wk 34 (to 22/8/2023) 6197 (2.29%).

Site will fallow all but one pen in May 2024. One pen used for restocking loch.

Kilcalmonell stock received for the first time and are the only stock affected by the PKD.

2023 stock treated for RTFS with florocol, this has been confirmed as effective but PKD still an issue

Site is being morted three times a day, on inspection of pens double digit mortality was observed on some pens. Numerous fish were lethargic with distended abdomens. Five fish were removed for diagnostic sampling.

The site is now being used for the supply of stock to Kames sea sites as well as to the local angling club in the loch.

Case No: Site No:

Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	<input type="text" value="19"/>	Facilities stocked	<input type="text" value="10"/>	No facilities inspected	<input type="text" value="19"/>
Species	<input type="text" value="RTR"/>	<input type="text" value="RTR"/>	<input type="text" value="RTR"/>		
Age group	<input type="text" value="2023"/>	<input type="text" value="2022"/>	<input type="text" value="2020"/>		
No Fish	<input type="text" value="259,551"/>	<input type="text" value="5,700"/>	<input type="text" value="128"/>		
Mean Fish Wt	<input type="text" value="50g"/>	<input type="text" value="962g"/>	<input type="text" value="3.7kg"/>		
Next Fallow Date (Site)	<input type="text" value="on-going cycle"/>		Next Input Date (Site)	<input type="text" value="no plans currently"/>	
Recent (last 4 wks) disease problems?			Any escapes (since last visit)?	<input type="text" value="y"/>	
If yes, detail:	<input type="text" value="PKD and RTFS"/>				

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?

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:

3. Mortality records complete and correctly entered?

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:

6. Any other peaks in mortality during period checked?

If yes, detail:

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)?	<input type="checkbox"/>	Y
If yes, detail:	florocol	
If other, detail:		
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	Y
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	florocol	
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>	y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	y
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.)?	<input type="checkbox"/>	y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	y
If no, detail:		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	y
2. If yes, are results available for inspection?	<input type="checkbox"/>	Y
3. Any significant results?	<input type="checkbox"/>	Y
If yes, detail (if not detailed under recent disease problems).	as above PKD and RTFS	

Records checked between:	12/10/2021 to 23/8/2023
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Case no: Site No: Date of visit/
Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No	F1	F2	F3	F4	F5							
Fish nos	1	2	3	4	5							
Pool Group	P1	P1	P1	P1	P1							
Species	RTR	RTR	RTR	RTR	RTR							
Average weight	60g	60g	60g	60g	60g							
Sex	N/A	N/A	N/A	N/A	N/A							
Water Type	FW	FW	FW	FW	FW							
Stock Details		Kilcalmonell	Kilcalmonell	Kilcalmonell	Kilcalmonell	Kilcalmonell						
	Stock Origin											
Facility No	14	14	14	8	8							

Case no: **2023-0371**

Site No: **FS0134**

Method of killing: **Percussive**

Date of visit: **23/08/2023**

Inspector(s): **[REDACTED]**

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

Additional comments:

Case Number:	2023-0371	Site No:	FS0134	Insp:	
Date of Visit	23/08/2023	No of movements/supp./dest.			Score
Live fish movements		0	1-5	6-10	>10
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26
	Number of suppliers	0	5	10	14
Movements off	Frequency of movements off	0	3	6	10
	Number of destinations	0	3	6	10
Exposure via water	Site contacts	0	1-5	6-10	
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0			
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4	1
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6	
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8	
Management practices		None	Secure	Unsecure	
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2	0
On farm processing within the rules of the directive	No on farm processing	0			0
	Processing own fish (re-cycling risk)	1			
	Processing fish from MS of equivalent status	2			
	Processing fish from zone or compartment of equivalent status	4			
	Processing fish from Category III farm	8			
	Processing fish from Category V farm	10			
Disposal of fish and fish by-products	Site's own waste only processed.	0			0
	Common processes with other farms	3			
	Collection point for waste from other farms	5			
Use of unpasteurised feeds	No feeding of unpasteurised feed	0			0
	Feeding unpasteurised feed	5			
Biosecurity	Number of sites	1	2 or 3	≥ 4	
Contacts with other sites	Sites operating from single shorebase	0	1	2	1
	Sites sharing staff and equipment	0	1	2	
Disinfection of equipment between sites, use of footbaths etc	Yes	0			0
	No	1			
CoGP/Regulator					
Practices in accordance with regulator or industry code of practice	Yes	0			0
	No	3			
Platform access to cages	Yes	0			0
	No	2			
Total Rank					15 LOW

Case No: 2023-0371

Site No: FS0134

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?
2. Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?
3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
11. Has any other action been taken (where applicable)?
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
13. Are treatments, where conducted, carried out in cooperation between participating farms?
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

1. Has the site experienced equipment damage due to predators in the current or previous production cycles? N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below) Y
electric fence for otters bird nets, tensioned nets, anti predator nets (on the top two meters three panels of net)
 If other, detail below:
3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection? N
 If Yes proceed with questions 4 – 9. If No skip to question 10
4. Have these been reported to Scottish Ministers?
5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
7. Were methods (if any) used to recover escapees? If yes give detail
8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s)

Results

Bacteriology: Kidney and spleen material from F1-F5 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- *Pseudomonas fluorescens* (spleen F1 and F2)

Tissue samples were tested for the presence of *Renibacterium salmoninarum* (the causative agent of bacterial kidney disease (BKD)) and *Flavobacterium psychrophilum* (the causative agent of rainbow trout fry syndrome RTFS), the result of these tests were negative.

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

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), salmonid alphavirus (SAV) and viral haemorrhagic septicemia virus (VHSV).

Parasitology:

Fins were collected to determine the presence of *Gyrodactylus salaris* using light microscopy. No *G. salaris* parasites were detected in the samples examined.

Kidney imprints were taken to test for the presence of for *Tetracapsuloides bryosalmonae*, the causative agent of PKD. *Tetracapsuloides bryosalmonae* was identified in F1, F2, F3 and F5.

Tissue samples were tested for segments of nucleic acid indicative of the presence of the *Tetracapsuloides bryosalmonae* using real-time PCR (qPCR).

Tetracapsuloides bryosalmonae

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.30	21.38	21.62	21.53	POSITIVE
F2	20.90	18.85	18.78	18.75	POSITIVE
F3	20.83	20.25	20.26	20.17	POSITIVE
F4	20.62	18.90	18.92	18.95	POSITIVE
F5	20.10	20.54	20.78	20.51	POSITIVE

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

Histopathological examination revealed the following:

Gill: Hyperplasia lamellar branchitis, some to mild, multifocal observed in all fish. F5 displayed foci of necrosis and F4 an occasional ciliate parasite.

Skin & Muscle: Myosites, mild, multifocal with few structures consistent with *Tetracapsuloides bryosalmonae*. F3 and F4 also displayed mild to moderate epidermal spongiosis.

Heart: Some minor, multifocal myocarditis (F1, F5) with foci of necrosis (F5).

Gut and pyloric caeca: Within normal range.

Pancreas: Within normal range.

Liver: Hepatitis, mild, multifocal (F1, F3, F4, F5), hepatocellular necrosis with structures consistent with *Tetracapsuloides bryosalmonae*, mild, multifocal, (F2). Hepatocellular vacuolation (macrovesicles), diffuse, mild (F1-F5).

Kidney: Interstitial cell (haemopoietic) necrosis, severe, diffuse observed in all fish. Several structures consistent with *Tetracapsuloides bryosalmonae* also observed.

Spleen: Necrotizing splenitis, focal to diffuse, mild to moderate observed in all fish. Several structures consistent with *Tetracapsuloides bryosalmonae* also observed.

Signed:pp



Date: 03/10/2023

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/resources/consultations-petitions-and-statements/fish-health-inspectorate-service-charter-2023-2025/)

Case No: 2023-0372 Date of visit: 24/08/2023

Time spent on site: 5h Main Inspector: [Redacted]

Site No: FS0423 Site Name: Lamlash
Business No: FB0169 Business Name: Bakkafrost Scotland

Case Types: 1 REP 2 REG 3 DIA 4 [] 5 [] 6 []

Water Temp (°C): 15.5 Thermometer No: T173 FHI 045 completed []

Observations: Region: ST Water type: S CoGP MA M-48

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:
Water temp too high and ECI not due

Additional Case Information:

Site inspected following mortality notifications received by the FHI. Elevated mortalities have been recorded on site since May

Peaks in mortality above reporting threshold: 2023, wk 18 3139 (1.92%), wk 19 2909 (2.04%), wk 22 757 (4.68%), wk 24 566 (2.18%), wk 25 (2.75%), wk 26 325 (2.12%), wk 30 11692 (9.80%), wk 31 8281 (7.70%), wk 32 13992 (14.09%), wk 33 8793 (10.31%). week 34 (to date), 3098 (4.05%).

Site received additional stock from Sgeir Dughall in Feb/March, Maaey in May and Geasgill in July. Site was fallowed for 10 days prior to the Geasgill input. Gill issues have been the main issue.

Recent health report details that AGD scores were low, PGD scoring between 1-3, with moderate gill damage noted.

Peaks in mortality 2022 wk 43 3018 (1.61%), wk 44 4869 (2.63%), wk 45 9330 (5.18%), wk 46 5514 (3.23%), gill health the main cause but some external lesions were reported.

Recent treatments have been the FW FLS (15/8/2023) system only which has been effective for lice control.

On inspection of stocks two moribunds were observed however these were too deep in the water column to remove, a number of lethargic fish were observed five were selected and removed for diagnostic sampling.

Wrasse mortalities for the last four weeks: wk 31 0, wk 32 14 (0.59%), wk 33 32 (1.35%) and wk 34 7 (0.30%).

Case No: **2023-0372** Site No: **FS0423**
 Date of Visit: **24/08/2023** Inspector(s): **[REDACTED]**

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	14	Facilities stocked	6	No facilities inspected	14
Species	SAL	WRA			
Age group	2022 Q3	wild			
No Fish	73,430	1,553			
Mean Fish Wt	2.8kg	N/A			
Next Fallow Date (Site)	December 2023		Next Input Date (Site)	2024 Q2	
Recent (last 4 wks) disease problems?		Y	Any escapes (since last visit)?		N
If yes, detail:	Gill health issues,				

Movement Records

- 1. Movement records available for inspection?
- 2. Date of last inspection: **27/10/2022**
- 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?

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? **Whole fish - Dundas Chemicals**
- If other detail: **[REDACTED]**
- 3. Mortality records complete and correctly entered?
- 4. Recent mortality (last 4 wks): **see additional information**
- 5. Evidence of recent increased/atypical mortalities?
- If yes, facility nos/no mortality per facility/no stock per facility/reason: **see additional comments**
- 6. Any other peaks in mortality during period checked?
- If yes, detail: **see additional comments**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI?
- If yes, detail action: **[REDACTED]**
- 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)?	<input type="checkbox"/>	Y
If yes, detail:	Optomease	
If other, detail:		
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	Y
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	Optomease	
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	N/A

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>
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.)?	<input type="checkbox"/>
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>
If no, detail:	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	Y
2. If yes, are results available for inspection?	<input type="checkbox"/>	Y
3. Any significant results?	<input type="checkbox"/>	Y
If yes, detail (if not detailed under recent disease problems).		

Records checked between:	27/10/2022 to 24/08/2023
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Case no: Site No: Date of visit/
 Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pool - click

Pool/Fish No	F1	F2	F3	F4	F5							
Fish nos	1	2	3	4	5							
Pool Group	P1	P1	P1	P1	P1							
Species	SAL	SAL	SAL	SAL	SAL							
Average weight	2.8000	2.8000	2.8000	1.0000	2.8000							
Sex	N/A	N/A	N/A	N/A	N/A							
Water Type	SW	SW	SW	SW	SW							
Stock Details		Geasgill	Geasgill	Geasgill	Geasgill	Geasgill						
	Stock Origin											
Facility No	3	3	4	4	4							

Case no: 2023-0372

Site No: FS0423

Method of killing: Percussive

Date of visit: 24/08/2023

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)										
External Signs										
Behaviour	Moribund									
	Lethargic	S	S	S	S	S				
	Hanging vertical									
	Spiralling									
	Flashing									
	Loss of equilibrium									
Body	Dark									
	Distended abdomen									
	Anorexic			m						
	Scale Oedema									
Opercula	Shortened									
	Flared									
Haemorrhaging	Throat									
	Ventrum									
	Base of fins									
	Elsewhere									
Eyes	Exophthalmic	S								
	Enophthalmic (sunken)									
	Cataract									
	Haemorrhagic									
Gills	Pale	w	w	w	w	w				
	Zoned									
	Necrotic	w	w	m	w	w				
Lesions	Flank	m	S		w	w				
	Elsewhere									
Vent	Inflamed									
	Trailing faeces									
Lice Load	Estimate numbers	0	0	0	0	0				
Internal Signs										
Ascites	Clear									
	Bloody									
Oedema	In tissues									
Heart	Pale/anaemic	m	m	m	m	m				
	Granulomas				S					
	Deformed	M	m	m	m	m				
Liver	Petechial haem									
	Gross haem									
	Tissue breakdown									
	Enlarged									
	Colour number(s)	4	4	4	4	4				
	Granulomas									
	Lesions									
Pyloric caeca	Petechial haem									
	Tubules mauve									
	Lack of fat				w					
Spleen	Enlarged	w	w	w	w	w				
	Granulomas									
Gut	No food present									
	Yellow pseudo-faeces									
	External haem									
	Internal haem									
Body wall	Haemorrhaging									
Swim bladder	Haemorrhaging									
	Fluid filled									
Kidney	Swollen									
	Grey									
	Granular									
	Liquefied									
General	Parasites present									
	Anaemia									

Additional comments:

Case Number:	2023-0372	Site No:	FS0423	Insp:		
Date of Visit	24/08/2023	No of movements/supp./dest.			Score	
Live fish movements		0	1-5	6-10	>10	
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14	0
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26	0
	Number of suppliers	0	5	10	14	0
Movements off	Frequency of movements off	0	3	6	10	10
	Number of destinations	0	3	6	10	3
Exposure via water	Site contacts	0	1-5	6-10		
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0				
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4		1
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6		
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8		
Management practices		None	Secure	Unsecure		
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2		0
On farm processing within the rules of the directive	No on farm processing	0				0
	Processing own fish (re-cycling risk)	1				
	Processing fish from MS of equivalent status	2				
	Processing fish from zone or compartment of equivalent status	4				
	Processing fish from Category III farm	8				
	Processing fish from Category V farm	10				
Disposal of fish and fish by-products	Site's own waste only processed.	0				0
	Common processes with other farms	3				
	Collection point for waste from other farms	5				
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
Biosecurity	Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating from single shorebase	0	1	2		0
	Sites sharing staff and equipment	0	1	2		
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
CoGP/Regulator						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
Total					14	
Rank					LOW	

Case No: **2023-0372** Date of visit: **24/08/2023**
 Site No: **FS0423** Inspector: **[REDACTED]**

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp
AGD (Neoparamoeba perurans) (PCR) - AGDQ	3/5	29/08/2023		29/08/2023		03/10/2023		
IHN (PCR) - IHNP	0/5	29/08/2023		29/08/2023		03/10/2023		
IPN (PCR) - IPNM	0/5	29/08/2023		29/08/2023		03/10/2023		
ISA (real time qPCR - heart & kidney) - ISAQ	0/5	29/08/2023		29/08/2023		03/10/2023		
Paranucleospora theridion (PCR) - PNST	5/5	29/08/2023		29/08/2023		03/10/2023		
Piscine myocarditis virus (CMS) (PCR) - PMVP	0/5	29/08/2023		29/08/2023		03/10/2023		
Salmon gill poxvirus (PCR) - SPVP	5/5	29/08/2023		29/08/2023		03/10/2023		
VHS (PCR) - VHSP	0/5	29/08/2023		29/08/2023		03/10/2023		
Salmonid alphavirus (SAV) (PCR) - SALP	1/5	30/08/2023		30/08/2023		03/10/2023		
Aeromonas salmonicida (Furunculosis) - ASAL	4/5	07/09/2023		07/09/2023		03/10/2023		
Aeromonas spp - AERO	4/5	07/09/2023		07/09/2023		03/10/2023		
Vibrio species (culture) - VSPE	1/5	07/09/2023		07/09/2023		03/10/2023		
Epitheliocystis - EPIT	1/5	19/09/2023		19/09/2023		03/10/2023		
Gill pathology - GPAT	5/5	19/09/2023		19/09/2023		03/10/2023		
Aeromonas (histology) - AERH	5/5	19/09/2023		19/09/2023		03/10/2023		
*communicated by email								

Report Summary			
Case Type	Date	Insp	2 nd Insp
DIA	03/10/2023		
REG	11/10/2023		



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0169	DATE OF VISIT	24/08/2023
SITE No	FS0423	SITE NAME	Lamlash
CASE No	20230372	INSPECTOR	[REDACTED]

Section 1: Summary

This site was inspected following reports of increased mortality, five lethargic fish were removed from the pens for further examination and subsequent diagnostic sampling.

Histopathology examination revealed features consistent with *Aeromonas salmonicida* (furunculosis) which was also identified from plates taken from kidney and lesion material. The level and purity of growth of this bacterium suggest it would be implicated as a primary cause of morbidity.

Also observed was mild, hyperplastic branchitis and two fish displayed bacterial necrotising branchitis. One fish also displayed areas of light H&S stain in the compactum stratum. Hepatocellular necrosis also observed.

Aeromonas sp. was identified on plates taken from lesion material and *Vibrio* sp. was identified on plates taken from kidney material. The level and purity of growth would suggest neither bacteria were implicated as the primary cause of the pathologies observed.

Samples tested positive for Salmonid alphavirus (SAV) and the gill related pathogens: *Paranucleospora theridion*, salmon gill poxvirus (SGPV) and *Neoparamoeba perurans* (AGD).

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

Elevated mortalities in the current crop of fish have been reported to the FHI since the start of August 2023, the cause being attributed to gill health and furunculosis. Due to the high levels of mortality reported a site inspection was conducted. The week prior to the inspection the mortality rate was 10.31% (8793 fish).

On inspection of the site two moribund fish were observed, these were deep in the water column so could not be caught however a number of lethargic fish were observed, five of which were removed for further examination and subsequent diagnostic sampling.

Externally F3 appeared anorexic and F1 displayed bilateral exophthalmia. The gills of all fish were pale and necrotic and flank lesions were present on F1, F2, F4 and F5.

Internally the hearts of all fish appeared deformed and pale with granulomas present on F4. Splenomegaly was evident in all fish and a distinct lack of fat was noted on the pyloric caeca of F4.

Samples

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

Fish number	Facility number	Species	Stage	Origin
1-2	3	Atlantic salmon	2.8 kg 2022 Q3	Geasgill
3-5	4	Atlantic salmon	2.8 kg 2022 Q3	Geasgill

Results

Bacteriology: Kidney and gill material from F1 - F5 and lesion material from F1, F2, F4 and F5 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- *Aeromonas salmonicida* (kidney (F1, F2, F3 and F4) lesion (F2 and F4));
- *Aeromonas* sp. (lesion F1, F2, F4 and F5);
- *Vibrio* sp. (kidney F5).

From the tests conducted we do not have evidence of resistance to amoxycillin, sulphamethoxazole/trimethoprim or florfenicol.

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

Salmonid alphavirus

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	-	-	-	-	Negative
F3	-	-	-	-	Negative
F4	17.10	34.56	34.47	34.58	POSITIVE
F5	-	-	-	-	Negative

Salmon gill poxvirus

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	22.91	36.53	38.28	38.99	POSITIVE
F2	23.13	28.27	28.29	28.28	POSITIVE
F3	22.58	28.35	28.52	28.50	POSITIVE
F4	20.92	33.85	34.00	33.73	POSITIVE
F5	21.76	25.08	25.10	25.05	POSITIVE

The samples tested negative for infectious haematopoietic necrosis virus (IHNV), infectious pancreatic necrosis virus (IPNV), infectious salmon anaemia virus (ISAV), piscine myocarditis virus (PMCV) and viral haemorrhagic septicaemia 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).

Neoparamoeba perurans (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	23.13	31.96	31.82	31.98	POSITIVE
F3	22.58	31.05	30.95	31.04	POSITIVE
F4	-	-	-	-	Negative
F5	21.76	31.78	31.79	32.03	POSITIVE

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	22.91	35.98	35.74	35.73	POSITIVE
F2	23.13	25.89	25.95	25.94	POSITIVE
F3	22.58	29.69	29.74	29.69	POSITIVE
F4	20.92	33.33	33.41	33.24	POSITIVE
F5	21.76	24.07	24.07	24.09	POSITIVE

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

Histopathological examination revealed the following:

Gill: Filament branchitis, mild, multifocal (F1), F2 displayed lamellar hyperplastic branchitis with areas of haemorrhage, mainly at the tip filaments, chronic, multifocal. F3 and F5 displayed necrotising bacterial (mixed Gram-negative bacteria) branchitis, marked, focal. F3 exhibited few aggregates of Gram-negative rod-shaped bacteria, filament hyperplastic branchitis, mild, multifocal, and occasional basophilic epithelial inclusions (likely epitheliocystis). Aneurysmal dilation/telangiectasia observed among all fish and free blood among gill filaments. Features of autolysis observed on F2-F5.

Skin & Muscle: Dermatitis with several aggregates of aggregates of Gram-negative rod-shaped bacteria, mild, multifocal (F1, F4). F5 displayed a mild dermatitis.

Heart: Several small dense aggregates of Gram-negative bacteria (F2). Some light H&E stain observed in the compact layer (F5). Epicarditis (F3, F5).

Gut and pyloric caeca: Marked cell sloughing (potentially associated with post-mortem artefact) observed in F2-F5.

Pancreas: Within the normal range.

Liver: Hepatocellular necrosis, mild, multifocal with Gram-negative rod-shaped bacterial aggregates (F4). Hepatocellular necrosis, very mild to mild, multifocal (F2, F3, F5) with focal area of haemorrhage (F3). Mild, diffuse hepatocellular vacuolation (macrovesicles) observed in all fish.

Kidney: Foci of interstitial cell (haemopoietic) necrosis (F2, F3, F5) with few to several dense aggregates of Gram-negative rod-shaped bacteria in F2, F3, F4, F5.

Spleen: Necrotising splenitis with Gram-negative rod-shaped bacteria, multifocal, mild (F3), few aggregates of Gram-negative rod-shaped bacteria in F2, F3, F4. F5 exhibited cuffing (F4).

Signed:pp



Date: 03/10/2023

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 \(www.gov.scot\)](http://www.gov.scot/Topics/marine/science)



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No FB0169
SITE No FS0423
CASE No 20230372

DATE OF VISIT 24/08/2023
SITE NAME Lamlash
INSPECTOR [REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

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.

Mortality levels had exceeded the reporting criteria since the last inspection and had been reported to the Fish Health Inspectorate as required.

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Directorate were available for inspection.

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

Signed: [REDACTED]

Fish Health Inspector

Date: 11/10/2023

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 \(www.gov.scot\)](http://www.gov.scot/Topics/marine/science)

R10

Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:
Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: ST Water type: B CoGP MA:

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:

Private pond in Clydebank, Glasgow, was inspected following notification of suspected KHV. Owner contact details: [REDACTED]

Owner had noted a significant increase in mortalities and moribunds, demonstrating necrotic gills.

Koi only pond. Received an input of fish from Koi Fond Ltd ([REDACTED]) on 28th July 2023. Fish initially appeared to be doing well until around 10 days ago when they became noticeably lethargic and gills appeared pale and necrotic. The ponds first input of fish was from the same supplier in 2022 and that input have been healthy since input with ~20 mortalities removed following transfer but none following that.

Anti-fungal treatment was administered over 7 days at the onset of mortalities ~10days ago (active ingredients: acriflavine hydrochloride and malachite green oxalate). Owner reports that the treatment appeared to improve the health of the fish and they were more active in the pond until treatment stopped and health declined again within 24hrs.

Several mortalities (~10) have been removed daily since onset of issue.

10 moribund and lethargic fish displaying clinical signs of KHV (sunken eyes, lack of mucous membrane and necrotic gills) were removed and diagnostic samples taken.

Inspector explained options to owner following placement of an IDN on the address. He chose to humanely cull the remaining population and he will clean, disinfect and dry out the pond before any further inputs (subject to approval by FHI). Culled fish and fish waste from the diagnostic sampling was all removed and disposed of by the inspector via clinical waste routes. Previously, owner had been bagging mortalities and disposing of them in domestic waste.

Case No: **2023-0374** Site No: **FS1244**
 Date of Visit: **23/08/2023** Inspector(s):

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	1	Facilities stocked	1
Species	CAR		
Age group	2022	2023	
No Fish	125	25	
Mean Fish Wt	500g	300g	
Next Fallow Date (Site)	Now fallow.		Next Input Date (Site)
Recent (last 4 wks) disease problems?			Y Any escapes
If yes, detail:	Suspected KHV		

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?

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? **Domestic was**
- If other detail:
3. Mortality records complete and correctly entered?
 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:
6. Any other peaks in mortality during period checked?
- If yes, detail:
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)?

If yes, detail:

Anti-fungal

If other, detail:

2. Medicines records available for inspection?

3. Are records complete and correctly entered?

4. Are fish in a withdrawal period?

5. If yes, what treatment(s)?

If other, detail:

6. Are medicines stored appropriately?

Biosecurity Records

1. Biosecurity records available for inspection?

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

3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any *increased* (un) included?

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 that will be notified to Scottish Ministers?

5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status,

6. Have the husbandry and biosecurity measures implemented between each epidemiological unit to minimise transmission of staff, visitors, equipment, live or dead fish etc.)?

7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals

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

If no, detail:

Results of Surveillance

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

2. If yes, are results available for inspection?

3. Any significant results?

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

Records checked between:

N/A

Case no: Site No: Date of visit/
 Sampling:

Priority samples: VI BA PA MG HI

Time sampling starts/ends: Inspector: VMD No.

Environmental conditions: 1 2 3 4 5

Summary samples HIST BA MG VI PA Total Samples

Add Fish/Pools - click

Pool/Fish No	F1	F2	F3	F4	F5	F6	F7	F8	F9	F10		
Fish nos	1	2	3	4	5	6	7	8	9	10		
Pool Group	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10		
Species	CAR	CAR	CAR	CAR	CAR	CAR	CAR	CAR	CAR	CAR		
Average weight	500g	500g	500g	500g	500g	500g	500g	500g	500g	500g		
Sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
Water Type	FW	FW	FW	FW	FW	FW	FW	FW	FW	FW		
Stock Details												
		Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	Koi Fond Ltd	
Stock Origin												
Facility No	Garden	Garden	Garden	Garden	Garden	Garden	Garden	Garden	Garden	Garden	Pond	

Case no: **2023-0374** Site No: **FS1244** Method of killing: **Percussive**
 Date of visit: **23/08/2023** Inspector(s): **[REDACTED]** Sheet Relevant: **Y**

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

Fish Number		F1	F2	F3	F4	F5	F6	F7	F8	F9	F10
Time sampled after death (if > 45 minutes)											
External Signs											
Behaviour	Moribund	S	S	S	S	S	S	S	S	S	S
	Lethargic	S	S	S	S	S	S	S	S	S	S
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic										
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										W
	Ventrum			W							
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)	S		S	M	W	M		M		W
	Cataract										
	Haemorrhagic										
Gills	Pale	S		W	S		M	M	W	W	
	Zoned				S		M			M	W
	Necrotic	S	W	M	S		S	S	S		
Lesions	Flank										
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers										
Internal Signs											
Ascites	Clear										
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic			W		W			W		
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	4	4	3	3	3	4	5	3	4	4
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve										
	Lack of fat	M		M	W	W	W	W	W	M	W
Spleen	Enlarged				W	W		W			W
	Granulomas										
Gut	No food present			W				W			
	Yellow pseudo-faeces	W	W		W	W	W		W	W	W
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
	Fluid filled										
Kidney	Swollen										
	Grey										
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia										

Additional comments:

Site No: FS1244

Case No: 2023-0374

Nature of non-compliance:

Action taken (FHI):

Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology





FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0544	DATE OF VISIT	23/08/2023
SITE No	FS1244	SITE NAME	Strathclyde
CASE No	20230374	INSPECTOR	[REDACTED]

Section 1: Summary

A private garden pond located at [REDACTED], was inspected following notification of the suspicion of koi herpesvirus (KHV) from a third party. Ten moribund fish displaying clinical signs of KHV were removed for diagnostic sampling.

Histopathology examination revealed marked filamentous bacterial branchitis and pathology consistent with koi herpesvirus, confirmed by positive qPCR and DNA sequencing analysis.

Aeromonas sp., *Citrobacter youngae* and *Flavobacterium columnare* were identified. *Flavobacterium columnare* is a known primary fish pathogen and its presence would be considered a risk to fish health, the low level of growth observed from the spleen does not necessarily suggest a low level of presence overall.

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

A private garden pond was inspected following notification of the suspicion of Koi Herpes Virus (KHV) from a third party. The pond is located in Clydebank, Glasgow and was stocked with ~100 Koi ranging between 300-500g. All Koi were sourced from Koi Fond Ltd, Leeds and were introduced to the pond over 2 inputs (one in 2022 and the most recent input in July 2023). First input of fish had been healthy since input, with only ~20 mortalities occurring shortly after transfer. However, shortly after the most recent input, the owner noticed that the fish had become very lethargic and had pale and necrotic gills. Approximately 10 mortalities were being removed daily beginning in wk32 2023. Ten moribunds displaying clinical signs of KHV were removed for diagnostic sampling.

Externally, all ten fish were lethargic and moribund. F10 had haemorrhaging on the throat and F3 also had haemorrhaging along the ventrum. F1, F3-6, F8 and F10 all had enophthalmic eyes. The gills were pale in F1, F3-4 and F6-9, were zoned in F4, F6, F9-10 and were necrotic in F1-4, F6-8. Internally, the hearts of F3, F5 and F8 were pale/anaemic and there was a lack of fat on the pyloric caeca of F1, F3, F5-6 and F8-10. The spleens of F4-5, F7 and F10 were enlarged. No food was present in the gut of F3 and F7 and yellow pseudo-faeces were observed in the guts of F1-2, F4-6 and F8-10.

Samples

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

Fish number	Pool number	Facility number	Species	Stage	Origin
F1-10	P1-10	Garden Pond	Koi Carp	2022/2023	Koi Fonds Ltd, Leeds

Results

Bacteriology: Kidney and spleen material from F1-10 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated from fish:

- *Aeromonas hydrophilia* (Kidney: F1 – F6)
- *Citrobacter youngae* (Spleen: F3, F4, F5 & F8 & Kidney: F3 and F5)
- *Flavobacterium columnare* (Spleen: F1 & F6)

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

Koi Herpesvirus (KHV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (qPCR)
F1	22.61	20.63	20.49	20.46	POSITIVE
F2	21.19	27.91	27.79	27.89	POSITIVE
F3	20.83	22.32	22.62	22.63	POSITIVE
F4	21.00	22.08	22.24	21.99	POSITIVE
F5	20.87	29.59	29.39	29.63	POSITIVE
F6	20.30	20.49	20.41	20.68	POSITIVE
F7	21.11	18.30	18.27	18.25	POSITIVE
F8	21.26	22.12	21.96	22.13	POSITIVE
F9	20.15	22.19	22.26	21.99	POSITIVE
F10	20.10	23.61	23.60	23.70	POSITIVE

Sequencing confirmed a 98.20% identity to cyprinid herpesvirus 3 strain GY-01.

Spring Viremia of Carp (SVC)

Fish Number	Reported Result (Conventional PCR)
F1	Negative
F2	Negative
F3	Negative
F4	Negative
F5	Negative

F1	Negative
F2	Negative
F3	Negative
F4	Negative
F5	Negative

Fish Number	Reported Result (Conventional PCR)
F6	Negative
F7	Negative
F8	Negative
F9	Negative
F10	Negative

F6	Negative
F7	Negative
F8	Negative
F9	Negative
F10	Negative

Parasitology: Ten gills were received in 70% ethanol for general parasitological examination.

Gills were in poor condition and necrotic with much blood/mucus present. No monogenean parasites were observed on the gills or in the transport tubes.

F1, F4, F6, F9 - Several mites (*Acari*) were observed attached to gill filaments. A spiked structure was also observed attached to a filament and identified as *Centropyxis* sp. lobose testate amoeba. Mites are likely feeding on fungi and bacteria associated with gill necrosis and not the cause of disease.

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

Histopathological examination revealed the following:

Gill: Necrotising branchitis, acute, severe, diffuse with filamentous Gram-negative bacteria aggregates (F1, F3, F4, F6, F8, F9) and less severe in F7. F1 & F3 displayed some intranuclear inclusions, chromatin margination. F2, F7 & F5 displayed multifocal to diffuse filament hyperplasia. F4 and F5 exhibited few dactylogyrus-like parasites. Free blood among gill filaments (F10).

Skin & Muscle: Within the normal range.

Heart: Minor myocarditis (F2) and presence of basophilic nuclei observed in atrium (F2), some focal to multifocal pericarditis (F1, F5, F10) and blood clot (F6).

Gut and pyloric caeca: Few individual cell necrosis observed on folds (F1-F10) and some inflammation (F6). Some congested folds (F5).

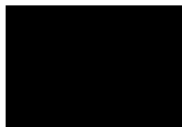
Pancreas: Within the normal range.

Liver: Hepatocytes displayed cloudy appearance (F1).

Kidney: Few renal tubular display hyaline droplets (F1-F10). F6 displayed few renal tubules filled with eosinophilic material (F6) and interstitial tissue displayed few scattered necrotic cells (F6, F8, F9). F7 exhibited some structures resembling intranuclear inclusions.

Spleen: Small area of necrosis (F1) and necrosis of few individual splenocyte (F9, F10), slightly congested (F1, F6).

Signed:



Date: 04/10/2023

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](http://www.gov.scot/Fish_Health_Inspectorate_Service_Charter) (www.gov.scot)

R09

UKAS accredited testing laboratory No. 1964

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB

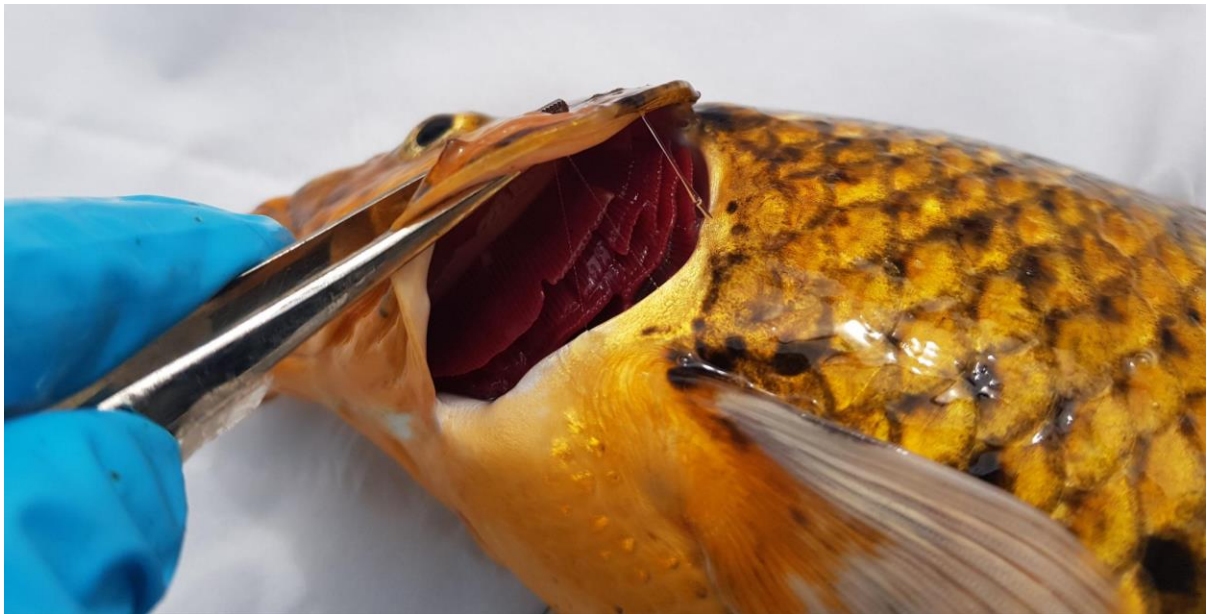
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - ms.fishhealth@gov.scot

Website - www.gov.scot/Topics/marine/science

F1 –



F2 -



F3 -



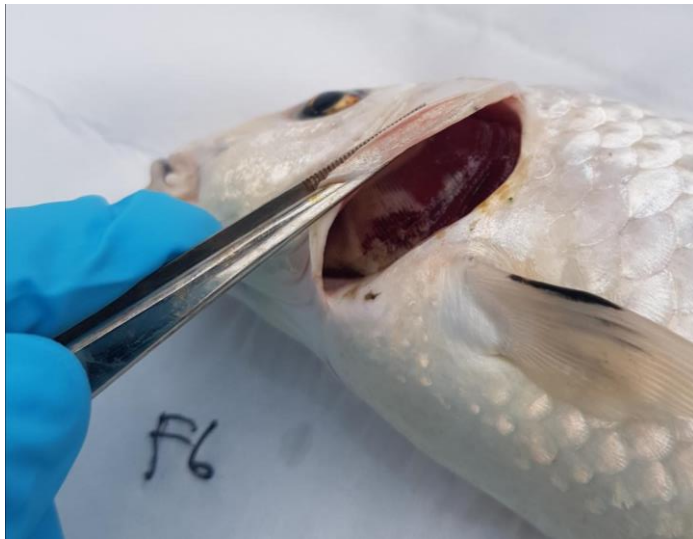
F4 –



F5 –



F6 –



F7 –





F8 –



F9 –





F10 –



Case No: 2023-0377 Date of visit: 29/08/2023

Time spent on site: 30 mins Main Inspector: [Redacted]

Site No: SS0931 Site Name: Oyster Holding Room
Business No: SB0556 Business Name: The Roslin Institute

Case Types: 1 REG 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: LO Water type: S CoGP MA: []

Dead/weak/abnormally behaving fish present? N/A If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N/A If yes, see additional information/clinical score sheet.
Gross pathology observed? N/A If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N/A

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

Additional Case Information:

Site currently fallow. Had Pacific oysters (12) on site earlier this year. Will be getting native oysters onto site in October from Craignish or Melfort. These will be held on site for about 2 weeks.

Stock is moved to disease challenge room for trials with OHV or vibrio.

Look to visit in October when stocked.

Mortalities are double bagged (yellow bags), autoclaved then incinerated as clinical waste.

Water sources; for larvae - sea water from St Abbs. Adults - artificial sea water. All discharge water is held in a bunded tank with hypochlorite for 24 hours prior to discharge into the drainage system.

No reported mortality issues since last inspection (9/11/23).



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	SB0556	DATE OF VISIT	29/08/2023
SITE NO	SS0931	SITE NAME	Oyster Holding Room
CASE NO	20230377	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

On this occasion, the site was found to be fallow. We plan to revisit the site in October when it is stocked.

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

Signed:

Fish Health Inspector

Date: 14/09/2023

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/policies/fish-health-inspectorate/)

Case No: 2023-0378 Date of visit: 29/08/2023

Time spent on site: 20 mins Main Inspector: [Redacted]

Site No: SS0941 Site Name: Disease Challenge Room 02050

Business No: SB0556 Business Name: The Roslin Institute

Case Types: 1 REG 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: LO Water type: S CoGP MA: []

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:
fallow

Additional Case Information:

Site is currently fallow and has been since last inspection. It is not likely to be used again. The reason being they are in the process of completing a new disease challenge room along the corridor. This is a purpose built room with a sealed floor and tanks for a recirc system. Discharge water would be held in a tank for treatment on site prior to discharge. It has the capacity to hold live animals for longer an in larger volumes and is for use solely for disease challenge work. Work should be completed in October when they will be looking to inactivate this site and authorise the new Disease Challenge Room. Consideration will need to be given to the movement restrictions for Room 02.050 and these are likely to need to be withdrawn and replaced on the new site. Visit should be planned for October to inactivate Disease Challenge Room 02.050 and authorised new disease challenge room as well as visit the Oyster holding room and Shrimp aquarium room both of which should be stocked.



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0556	DATE OF VISIT	29/08/2023
SITE No	SS0941	SITE NAME	Disease Challenge Room 02.050
CASE No	20230378	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

On this occasion, the site was found to be fallow. I was informed that it was unlikely that the site will be used again as a new Disease Challenge Room is almost complete. A visit will be conducted in October to inspect this site as cleaned and disinfected and to inactivate it. Following this the Confirmed Designation Notices placed on Disease Challenge Room 02.050 for oyster herpes virus and white spot disease will be withdrawn.

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

Signed:

[REDACTED]

Date: 14/09/2023

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 \(www.gov.scot\)](http://www.gov.scot/policies/fish-health-inspectorate/)

Case No: 2023-0379 Date of visit: 29/08/2023

Time spent on site: 30 mins Main Inspector: [Redacted]

Site No: SS0936 Site Name: Shrimp Aquarium Room

Business No: SB0556 Business Name: The Roslin Institute

Case Types: 1 REG 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: LO Water type: F CoGP MA:

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:

fallow

Additional Case Information:

Currently fallow - planning to stock in October from St Andrews site Rastech Eden Campus (SF) SS0946 but originate from Texas. Was stocked last week but with only 3 shrimps which were culled. No mortality issues. Shrimp are held here prior to moving to Disease challenge room for research work

Plan to revisit in October when stocked and a new disease challenge room will be complete.

Any mortalities are bagged, autoclaved and then incinerated as clinical waste.



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS NO	SB0556	DATE OF VISIT	29/08/2023
SITE NO	SS0936	SITE NAME	Shrimp Aquarium Room
CASE NO	20230379	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

On this occasion, the site was found to be fallow. We plan to revisit the site in October when it is stocked.

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

Signed:

Fish Health Inspector

Date: 14/09/2023

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/policies/fish-health-inspectorate/)

Case No: 2023-0380 Date of visit: 29/08/2023

Time spent on site: 20 mins Main Inspector: [Redacted]

Site No: FS1353 Site Name: AGRF (RAS B)

Business No: FB0568 Business Name: The Roslin Institute

Case Types: 1 REG 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: LO Water type: F CoGP MA: []

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:
fallow

Additional Case Information:

Site currently fallow and has never held stock. The 50 litre tanks at the site were not fit purpose so have been removed and are going to be replaced.

Hope to stock site in October with trout for IPN trials. - Look to visit in October if stocked.



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0568	DATE OF VISIT	29/08/2023
SITE No	FS1353	SITE NAME	AGRF (RAS B)
CASE No	20230380	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

On this occasion, the site was found to be fallow. We plan to revisit the site in October when it may be stocked.

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

Signed:

Fish Health Inspector

Date: 14/09/2023

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Case No: 2023-0381 Date of visit: 29/08/2023

Time spent on site: 30 mins Main Inspector: [Redacted]

Site No: FS1314 Site Name: Roslin Institute Hatchery

Business No: FB0568 Business Name: The Roslin Institute

Case Types: 1 ECI 2 CNI 3 4 5 6

Water Temp (°C): 8 Thermometer No: Site FHI 045 completed

Observations: Region: CE Water type: F CoGP MA:

Dead/weak/abnormally behaving fish present? N If yes, see additional information/clinical score sheet.

Clinical signs of disease observed? N If yes, see additional information/clinical score sheet.

Gross pathology observed? N If yes, see additional information/clinical score sheet.

Diagnostic samples taken? N

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

[Redacted]

Additional Case Information:

Site inactivated following visit 9/11/22 when it was located in room 1.40 however it has been relocated to room G26 and is currently stocked and was also stocked in June 2023.

Room G26 Middle wing is stocked and thought of as Roslin Institute hatchery. It is being used as refurb work is undertaken at AGRF (RAS B and RAS A). Previous room (1.40) was not suitable as it was not secure and located within a larger laboratory. All equipment was moved to G26. Same procedures and equipment (recur with water holding tank that is treated with hypochlorite for 24 hours prior to discharge into drains) but smaller lockable room.

On site eyed ova - 1000 ova from Trout Lodge Washington input 24/8/23. These will be moved to RAS A in a week or so.

500 RTR ova also input 26/6/23 from RAS A. however these were culled due to poor quality.

Update 21/9/23 - Of the 1000 trout eyed-eggs that were imported on Aug 24th there were very few initial mortalities
Mortality records:

Aug 24th to Sept 3rd (pre-hatch): morts = 10

Sept 3rd onwards (post-hatch): morts = 5 (failed to hatch)

Sept 4th cull 35

Sept 6th cull 37

Sept 14th cull 913 – no longer required for the study

Sept 14th : all animals removed and hatchery fallow

Site thermometer used so biosecurity reasons

Case No: 2023-0381

Site No: FS1314

Date of Visit: 29/08/2023

Inspector(s):

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	1	Facilities stocked	1	No facilities inspected	1
Species	RTR				
Age group	Ova				
No Fish	1,000				
Mean Fish Wt	<1g				
Next Fallow Date (Site)	next week	Next Input Date (Site)	unknown		
Recent (last 4 wks) disease problems?		N	Any escapes (since last visit)?		N
If yes, detail:					

Movement Records

- 1. Movement records available for inspection? Y
- 2. Date of last inspection: 09/11/2022
- 3. Are records complete and correctly entered? Y
- 4. Are movement records available for dead fish and waste? Y
- 5. Are records complete and correctly entered? Y
- 6. Are health certificates for introductions (outwith GB) available? Y

Transport Records

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

Mortality Records

- 1. Mortality records available for inspection? Y
- 2. How are mortalities disposed of? Other (detail) frozen, autoclaved and incinerated off site
- If other detail: frozen, autoclaved and incinerated off site
- 3. Mortality records complete and correctly entered? Y
- 4. Recent mortality (last 4 wks): ova on on site for 5 days <10 morts
- 5. Evidence of recent increased/atypical mortalities? N
- If yes, facility nos/no mortality per facility/no stock per facility/reason:
- 6. Any other peaks in mortality during period checked? Y
- If yes, detail: ova input June - delay in transport - no sign of development after fertilisation - remaining stock culled
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? N/A
- If yes, detail action:
- 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet. N/A

Treatments and Medicines Records

1. Recent treatments (see comment)?	<input type="checkbox"/>	N
If yes, detail: <input type="text"/>		
If other, detail: <input type="text"/>		
2. Medicines records available for inspection?	<input type="checkbox"/>	N/A
3. Are records complete and correctly entered?	<input type="checkbox"/>	N/A
4. Are fish in a withdrawal period?	<input type="checkbox"/>	N
5. If yes, what treatment(s)?	<input type="text"/>	
If other, detail: <input type="text"/>		
6. Are medicines stored appropriately?	<input type="checkbox"/>	N/A

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>	Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	Y
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.)?	<input type="checkbox"/>	Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	Y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	Y
If no, detail: <input type="text"/>		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	N
2. If yes, are results available for inspection?	<input type="checkbox"/>	
3. Any significant results?	<input type="checkbox"/>	
If yes, detail (if not detailed under recent disease problems). <input type="text"/>		

Records checked between:	<input type="text"/>	9/11/22-29/8/23
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Case Number:	2023-0381	Site No:	FS1314	Insp:	
Date of Visit	29/08/2023	No of movements/supp./dest.			Score
Live fish movements		0	1-5	6-10	>10
Movements on (from out with GB) of susceptible species	Frequency of movements on from equivalent MS	0	5	10	14
	Frequency of movements on from equivalent zone or compartment including third country	0	9	18	26
	Number of suppliers	0	5	10	14
Movements off	Frequency of movements off	0	3	6	10
	Number of destinations	0	3	6	10
Exposure via water	Site contacts	0	1-5	6-10	
Water contacts with other farms (holding species susceptible to same diseases)	Farm is protected (secure water supply through disinfection or borehole)	0			
	Farm is on-line or in a coastal zone with category I farms upstream or within 1 tidal excursion	1	2	4	
	Farm is on-line or in a coastal zone with category III farms upstream or within 1 tidal excursion	1	3	6	
	Farm is on-line or in a coastal zone with category V farms upstream or within 1 tidal excursion	1	4	8	
Management practices		None	Secure	Unsecure	
Water contacts with processors	Any processing plant discharging into adjacent waters	0	1	2	
On farm processing within the rules of the directive	No on farm processing	0			
	Processing own fish (re-cycling risk)	1			
	Processing fish from MS of equivalent status	2			
	Processing fish from zone or compartment of equivalent status	4			
	Processing fish from Category III farm	8			
	Processing fish from Category V farm	10			
Disposal of fish and fish by-products	Site's own waste only processed.	0			
	Common processes with other farms	3			
	Collection point for waste from other farms	5			
Use of unpasteurised feeds	No feeding of unpasteurised feed	0			
	Feeding unpasteurised feed	5			
Biosecurity	Number of sites	1	2 or 3	≥ 4	
Contacts with other sites	Sites operating from single shorebase	0	1	2	
	Sites sharing staff and equipment	0	1	2	
Disinfection of equipment between sites, use of footbaths etc	Yes	0			
	No	1			
CoGP/Regulator					
Practices in accordance with regulator or industry code of practice	Yes	0			
	No	3			
Platform access to cages	Yes	0			
	No	2			
				Total Rank	23 MEDIUM

Case No: 2023-0381

Site No: FS1314

Sea Lice Inspection (Seawater Sites Only)

1. Has the site experienced sea lice problems in the previous 4 years?
2. Is the CoGP Farm Management Area (or equivalent) fallowed synchronously on a single year class basis?
3. Does the site have access to a range of licenced in-feed and bath sea lice medications (including deltamethrin, azamethiphos and emamectin benzoate) as well as access to suitable biological and/or mechanical control measures, and can these be deployed in a reasonable period of time?
4. Is there a signed documented farm management agreement or statement relevant to the site and CoGP Farm Management Area (or equivalent)?
5. Are sea lice count records available for inspection? (Legal SSI, CoGP Annex 6)
6. Do records adequately reflect the required standard specified in the SSI and the CoGP? (Legal SSI, CoGP Annex 6)
7. Are sea lice (*L. salmonis*) record levels below the suggested criteria for treatment in the CoGP during the period that records are inspected? (CoGP Annex 6)
8. Have average adult female sea lice (*L. salmonis*) numbers per fish been at a level of 3 or above (prior to w/b 10/6/19) or 2 or above (from w/b 10/6/19) during the period that records are inspected?
If yes, have these been reported to the Fish Health Inspectorate? If no, FHI see comment.
9. Is *C. elongatus* infestation at a level which is considered to cause significant welfare problems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administered or other actions taken when *L. salmonis* levels have exceeded the suggested criteria for treatment or where *C. elongatus* is considered to have welfare implications? (CoGP 4.3.82, 5.3.51)
11. Has any other action been taken (where applicable)?
12. Have therapeutic treatments or the actions taken had a significant impact upon the lice levels recorded?
13. Are treatments, where conducted, carried out in cooperation between participating farms?
14. Is there a harvesting strategy for the site, where fewer populations or part populations are held without treatment for sea lice?
15. Is there a site specific written lice management procedure with waypoints describing set actions to deal with recognised scenarios during the escalation of a sea lice infestation?
16. Do the sea lice levels observed on stocks reflect sea lice count data? If no please detail reasons.

Containment Inspection

1. Has the site experienced equipment damage due to predators in the current or previous production cycles? N
2. Are measures in place to mitigate against the predation experienced on site? (Detail below) Y
in a secure laboratory
If other, detail below:
3. Have escape incidents or events been experienced on or in the vicinity of the site since the last FHI inspection? N
If Yes proceed with questions 4 – 9. If No skip to question 10
4. Have these been reported to Scottish Ministers?
5. Have these been reported to local DSFB forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
6. Have these been reported to the SSPO and local fisheries trusts forthwith (where they exist)? (CoGP – 4.4.37, 5.4.17)
7. Were methods (if any) used to recover escapees? If yes give detail
8. If gill nets were deployed was this action agreed with local wild fish interests and was permission given by Scottish Ministers? (Legal, CoGP – 4.4.38, 5.4.18)
9. What action was taken to prevent and minimise the risk of further escapes? (Not covered in code but could be considered under satisfactory measures of the Act)
10. Is the site inspected as satisfactory with regards to containment? If no, please detail reason(s) Y



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	FB0568	DATE OF VISIT	29/08/2023
SITE No	FS1314	SITE NAME	Roslin Institute Hatchery
CASE No	20230381	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

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.

No mortality levels exceeding the reporting criteria have been recorded since the last inspection.

No animal health surveillance had been carried out on behalf of the business and/or Marine Directorate since the last Marine Directorate inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

Inspection under the Aquaculture and Fisheries (Scotland) Act 2007

The site was also inspected in accordance with the Aquaculture and Fisheries (Scotland) Act 2007 with respect to section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory.

R04 UKAS accredited testing laboratory No. 1964
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB
Tel - 0131 244 3498 Email - ms.fishhealth@gov.scot
Website - <https://www.gov.scot/policies/fish-health-inspectorate/>

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

Signed:



Fish Health Inspector

Date: 21/09/2023

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Case No: 2023-0388 Date of visit: 30/08/2023

Time spent on site: 1 hour Main Inspector:

Site No: SS0957 Site Name: Papa North
Business No: SB0372 Business Name: Shetland Mussels Ltd

Case Types: 1 ECI 2 3 4 5 6

Water Temp (°C): 13.1 Thermometer No: T306 FHI 045 completed N/A

Observations: Region: SH Water type: S CoGP MA:

Dead/weak/abnormally behaving fish present? N If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N If yes, see additional information/clinical score sheet.
Gross pathology observed? N If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N

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

Additional Case Information:

Site has not had as high growth as the operator expected. Operator suspects that long travel times from Western isles has impacted survivability. Stock transferred to lines later had ice added to bags for transportation, which has helped increase growth.

Some fowling on lines, however overall site was clean with good growth.

Case No: Site No:

Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	<input type="text" value="6"/>	Facilities stocked	<input type="text" value="6"/>	No facilities inspected	<input type="text" value="6"/>
Species	<input type="text" value="MED"/>				
Age group	<input type="text" value="2022"/>				
No Fish	<input type="text" value="120"/>				
Mean Fish Wt	<input type="text" value="20mm"/>				
Next Fallow Date (Site)	<input type="text" value="No plans"/>		Next Input Date (Site)	<input type="text" value="2024"/>	
Recent (last 4 wks) disease problems?	<input type="text" value="N"/>		Any escapes (since last visit)?	<input type="text" value="N"/>	
If yes, detail:	<input type="text" value=""/>				

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?

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:

3. Mortality records complete and correctly entered?

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:

6. Any other peaks in mortality during period checked?

If yes, detail:

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)?	
If yes, detail:	
If other, detail:	
2. Medicines records available for inspection?	
3. Are records complete and correctly entered?	
4. Are fish in a withdrawal period?	
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	

Biosecurity Records

1. Biosecurity records available for inspection?		Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?		Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?		Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?		Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?		Y
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.)?		Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?		Y
8. Have the biosecurity procedures been adequately implemented on site?		Y
If no, detail:		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?		N/A
2. If yes, are results available for inspection?		
3. Any significant results?		
If yes, detail (if not detailed under recent disease problems).		

Records checked between:	19/07/2022 - 30/08/2023
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Case Number:	2023-0388	Site No:	SS0957
Date of Visit	30/08/2023	Inspector:	
Number of Susceptible species on site			
If no susceptible species present = LOW risk			
If susceptible species present, score for each pathogen			
		No	Yes
	Susceptible to Bonamia ostrea (OED)	0	25
	Susceptible to Marteilia refringens (OED, MED)	0	3
	Susceptible to OshV (CGI)	0	3
Sites within a tidal excursion			
		1	2-5
			>6
Site contacts	Number of sites holding susceptible species within a tidal excursion	0	2
			10
Live shellfish movements			
		0	1-2
			>3
Movements on	Frequency of movements on from equivalent MS	0	5
	Frequency of movements on from equivalent zone or compartment including third country	0	10
	Number of suppliers	0	5
Movements off	Frequency of movements off <u>within</u> MSS Management Areas	0	1
	Frequency of movements off <u>outwith</u> MSS Management Areas	0	3
	Number of destinations	0	3
Management practices			
		None	Secure (effluent treatment)
			Unsecure (no effluent treatment)
Water contacts with depuration facilities	Depuration of stock from own sites within MSS management area	0	1
	Depuration of stock from other businesses sites within MSS management area	0	2
	Depuration of stock from sites outwith MSS management area	0	4
Biosecurity			
	Number of sites	1	2 or 3
			≥ 4
Contacts with other sites	Sites operating from single shorebase	0	1
	Sites sharing staff and equipment	0	1
			Yes
	Disinfection of equipment between sites, use of footbaths etc	0	2
Total Risk			34
			HIGH



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0372	DATE OF VISIT	30/08/2023
SITE No	SS0957	SITE NAME	Papa North
CASE No	20230388	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as high. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted annually. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

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

No mortality had been observed on site since the last inspection by Marine Directorate .

No animal health surveillance had been carried out on behalf of the business and/or Marine Directorate since the last Marine Directorate inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

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

Signed:

Fish Health Inspector

Date: 02/10/2023

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Case No: Date of visit:

Time spent on site: Main Inspector:

Site No: Site Name:
 Business No: Business Name:

Case Types: 1 2 3 4 5 6

Water Temp (°C): Thermometer No: FHI 045 completed

Observations: Region: SH Water type: S CoGP MA:

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:

Site has not had as high growth as the operator expected. Operator suspects that long travel times from Western Isles (Loch Erisort) has impacted survivability. Stock transferred to lines later had ice added to bags for transportation, which has helped increase growth.

Some fouling on lines, but overall lines were clean and site was well maintained.

Case No: Site No:

Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	<input type="text" value="6"/>	Facilities stocked	<input type="text" value="4"/>	No facilities inspected	<input type="text" value="4"/>
Species	<input type="text" value="MED"/>				
Age group	<input type="text" value="2020"/>				
No Fish	<input type="text" value="200 T"/>				
Mean Fish Wt	<input type="text" value="60mm"/>				
Next Fallow Date (Site)	<input type="text" value="No plans"/>		Next Input Date (Site)	<input type="text" value="Nov 2023"/>	
Recent (last 4 wks) disease problems?	<input type="text" value="N"/>		Any escapes (since last visit)?	<input type="text" value="N"/>	
If yes, detail:	<input type="text" value=""/>				

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?

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:

3. Mortality records complete and correctly entered?

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:

6. Any other peaks in mortality during period checked?

If yes, detail:

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)?	
If yes, detail:	
If other, detail:	
2. Medicines records available for inspection?	
3. Are records complete and correctly entered?	
4. Are fish in a withdrawal period?	
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	

Biosecurity Records

1. Biosecurity records available for inspection?		Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?		Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?		Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?		Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?		Y
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.)?		Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?		Y
8. Have the biosecurity procedures been adequately implemented on site?		Y
If no, detail:		

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?		N/A
2. If yes, are results available for inspection?		
3. Any significant results?		
If yes, detail (if not detailed under recent disease problems).		

Records checked between:	11/08/2022 - 30/08/2023
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Case Number:	2023-0389	Site No:	SS0903
Date of Visit	30/08/2023	Inspector:	
Number of Susceptible species on site			
If no susceptible species present = LOW risk			
If susceptible species present, score for each pathogen			
		No	Yes
	Susceptible to Bonamia ostrea (OED)	0	25
	Susceptible to Marteilia refringens (OED, MED)	0	3
	Susceptible to OshV (CGI)	0	3
Sites within a tidal excursion			
		1	2-5
			>6
Site contacts	Number of sites holding susceptible species within a tidal excursion	0	2
			10
Live shellfish movements			
		0	1-2
			>3
Movements on	Frequency of movements on from equivalent MS	0	5
	Frequency of movements on from equivalent zone or compartment including third country	0	10
	Number of suppliers	0	5
Movements off	Frequency of movements off <u>within</u> MSS Management Areas	0	1
	Frequency of movements off <u>outwith</u> MSS Management Areas	0	3
	Number of destinations	0	3
Management practices			
		None	Secure (effluent treatment)
			Unsecure (no effluent treatment)
Water contacts with depuration facilities	Depuration of stock from own sites within MSS management area	0	1
	Depuration of stock from other businesses sites within MSS management area	0	2
	Depuration of stock from sites outwith MSS management area	0	4
Biosecurity			
	Number of sites	1	2 or 3
			≥ 4
Contacts with other sites	Sites operating from single shorebase	0	1
	Sites sharing staff and equipment	0	1
			Yes
	Disinfection of equipment between sites, use of footbaths etc	0	2
Total Risk			36
			HIGH



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0372	DATE OF VISIT	30/08/2023
SITE No	SS0903	SITE NAME	Crossroads
CASE No	20230389	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as high. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted annually. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

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

No mortality had been observed on site since the last inspection by Marine Directorate .

No animal health surveillance had been carried out on behalf of the business and/or Marine Directorate since the last Marine Directorate inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

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

Signed:

Fish Health Inspector

Date: 16/10/2023

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 \(www.gov.scot\)](http://www.gov.scot)

Case No: 2023-0390 Date of visit: 30/08/2023

Time spent on site: 1 hour Main Inspector:

Site No: SS0870 Site Name: Northra Voe
Business No: SB0372 Business Name: Shetland Mussels Ltd

Case Types: 1 ECI 2 3 4 5 6

Water Temp (°C): 13.4 Thermometer No: T306 FHI 045 completed N/A

Observations: Region: SH Water type: S CoGP MA:

Dead/weak/abnormally behaving fish present? N If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N If yes, see additional information/clinical score sheet.
Gross pathology observed? N If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N

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

Additional Case Information:

Growth rate not as high as expected, following transport from Cromarty Firth (Udale Bay SS0147). Ice was added to bags, which seems to have helped increased growth in lines with stock from later shipments.

There was some fouling on lines. Overall site was well maintained.

Case No: Site No:

Date of Visit: Inspector(s):

Registration/Authorisation Details

1. Business/site details summary checked by site representative?

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	<input type="text" value="3"/>	Facilities stocked	<input type="text" value="3"/>	No facilities inspected	<input type="text" value="3"/>
Species	<input type="text" value="MED"/>				
Age group	<input type="text" value="2021"/>				
No Fish	<input type="text" value="50 T"/>				
Mean Fish Wt	<input type="text" value="45mm"/>				
Next Fallow Date (Site)	<input type="text" value="No plans"/>		Next Input Date (Site)	<input type="text" value="Apr 2024"/>	
Recent (last 4 wks) disease problems?	<input type="text" value="N"/>		Any escapes (since last visit)?	<input type="text" value="N"/>	
If yes, detail:	<input type="text" value=""/>				

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?

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:

3. Mortality records complete and correctly entered?

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:

6. Any other peaks in mortality during period checked?

If yes, detail:

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)?	
If yes, detail:	
If other, detail:	
2. Medicines records available for inspection?	
3. Are records complete and correctly entered?	
4. Are fish in a withdrawal period?	
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/> Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/> Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/> Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/> Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/> Y
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.)?	<input type="checkbox"/> Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/> Y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/> Y
If no, detail:	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/> N/A
2. If yes, are results available for inspection?	
3. Any significant results?	
If yes, detail (if not detailed under recent disease problems).	

Records checked between:	19/07/2022 - 30/08/2023
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Case Number:	2023-0390	Site No:	SS0870
Date of Visit	30/08/2023	Inspector:	
Number of Susceptible species on site			
If no susceptible species present = LOW risk			
If susceptible species present, score for each pathogen			
		No	Yes
	Susceptible to Bonamia ostrea (OED)	0	25
	Susceptible to Marteilia refringens (OED, MED)	0	3
	Susceptible to OshV (CGI)	0	3
Sites within a tidal excursion			
		1	2-5
			>6
Site contacts	Number of sites holding susceptible species within a tidal excursion	0	2
			10
Live shellfish movements			
		0	1-2
			>3
Movements on	Frequency of movements on from equivalent MS	0	5
	Frequency of movements on from equivalent zone or compartment including third country	0	10
	Number of suppliers	0	5
Movements off	Frequency of movements off <u>within</u> MSS Management Areas	0	1
	Frequency of movements off <u>outwith</u> MSS Management Areas	0	3
	Number of destinations	0	3
Management practices			
		None	Secure (effluent treatment)
			Unsecure (no effluent treatment)
Water contacts with depuration facilities	Depuration of stock from own sites within MSS management area	0	1
	Depuration of stock from other businesses sites within MSS management area	0	2
	Depuration of stock from sites outwith MSS management area	0	4
Biosecurity			
	Number of sites	1	2 or 3
			≥ 4
Contacts with other sites	Sites operating from single shorebase	0	1
	Sites sharing staff and equipment	0	1
			Yes
	Disinfection of equipment between sites, use of footbaths etc	0	2
Total Risk			22
			MEDIUM



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0372	DATE OF VISIT	30/08/2023
SITE No	SS0870	SITE NAME	Northra Voe
CASE No	20230390	INSPECTOR	[REDACTED]

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as medium. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted every second year. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

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

No mortality had been observed on site since the last inspection by Marine Directorate .

No animal health surveillance had been carried out on behalf of the business and/or Marine Directorate since the last Marine Directorate inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

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

Signed:

Fish Health Inspector

Date: 16/10/2023

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 \(www.gov.scot\)](http://www.gov.scot)

Case No: 2023-0391 Date of visit: 30/08/2023

Time spent on site: 1 hour Main Inspector: [Redacted]

Site No: SS0869 Site Name: Gruna
Business No: SB0372 Business Name: Shetland Mussels Ltd

Case Types: 1 REG 2 [] 3 [] 4 [] 5 [] 6 []

Water Temp (°C): [] Thermometer No: [] FHI 045 completed []

Observations: Region: SH Water type: S CoGP MA: []

Dead/weak/abnormally behaving fish present? N/A If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N/A If yes, see additional information/clinical score sheet.
Gross pathology observed? N/A If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N/A

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

Additional Case Information:

No immediate plans to stock in current location, although would like to keep the site active.

No movements since last inspection.

Case No: 2023-0391

Site No: SS0869

Date of Visit: 30/08/2023

Inspector(s):

Registration/Authorisation Details

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

Site Details (include cleaner fish for all sections)

Total No facilities	Fallow	Facilities stocked	No facilities inspected
Species			
Age group			
No Fish			
Mean Fish Wt			
Next Fallow Date (Site)	No plans	Next Input Date (Site)	
Recent (last 4 wks) disease problems?		N/A	Any escapes (since last visit)? N/A
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?

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:
- 3. Mortality records complete and correctly entered?
- 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:
- 6. Any other peaks in mortality during period checked?
- If yes, detail:
- 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)?	
If yes, detail:	
If other, detail:	
2. Medicines records available for inspection?	
3. Are records complete and correctly entered?	
4. Are fish in a withdrawal period?	
5. If yes, what treatment(s)?	
If other, detail:	
6. Are medicines stored appropriately?	

Biosecurity Records

1. Biosecurity records available for inspection?	
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	
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.)?	
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	
8. Have the biosecurity procedures been adequately implemented on site?	
If no, detail:	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	
2. If yes, are results available for inspection?	
3. Any significant results?	
If yes, detail (if not detailed under recent disease problems).	

Records checked between:	19/07/2022 - 30/08/2023
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FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0372	DATE OF VISIT	30/08/2023
SITE No	SS0869	SITE NAME	Gruna
CASE No	20230391	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The operator of the above site was contacted in accordance with the Aquatic Animal Health (Scotland) Regulations 2009, and to meet the requirements of European Community Council Directive 2006/88/EC.

On this occasion, the site was found to be fallow.

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

No movements had taken place since the last inspection.

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

Signed:

Date: 16/10/2023

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 \(www.gov.scot\)](http://www.gov.scot/Topics/marine/science)

Case No: 2023-0392 Date of visit: 30/08/2023

Time spent on site: 1 Hour Main Inspector:

Site No: SS0838 Site Name: Brindister Inshore
Business No: SB0372 Business Name: Shetland Mussels Ltd

Case Types: 1 ECI 2 3 4 5 6

Water Temp (°C): 13 Thermometer No: T306 FHI 045 completed N/A

Observations: Region: SH Water type: S CoGP MA:

Dead/weak/abnormally behaving fish present? N If yes, see additional information/clinical score sheet.
Clinical signs of disease observed? N If yes, see additional information/clinical score sheet.
Gross pathology observed? N If yes, see additional information/clinical score sheet.
Diagnostic samples taken? N

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

Additional Case Information:

There was some fouling, as well as some brittle stars observed. No issues overall and the site was well maintained with good coverage.

Case No: **2023-0392** Site No: **SS0838**

Date of Visit: **30/08/2023** Inspector(s): **[REDACTED]**

Registration/Authorisation Details

- 1. Business/site details summary checked by site representative? **Y**
- 2. Changes made to details? **N**

Site Details (include cleaner fish for all sections)

Total No facilities	4	Facilities stocked	4	No facilities inspected	4
Species	MED	MED			
Age group	2021	2022			
No Fish	75 T	4 T			
Mean Fish Wt	45mm	<2mm			
Next Fallow Date (Site)	No plans		Next Input Date (Site)	Natural spatfall	
Recent (last 4 wks) disease problems?			N	Any escapes (since last visit)?	N
If yes, detail:	[REDACTED]				

Movement Records

- 1. Movement records available for inspection? **Y**
- 2. Date of last inspection: **11/08/2022**
- 3. Are records complete and correctly entered? **Y**
- 4. Are movement records available for dead fish and waste? **N/A**
- 5. Are records complete and correctly entered? **N/A**
- 6. Are health certificates for introductions (outwith GB) available? **N/A**

Transport Records

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

Mortality Records

- 1. Mortality records available for inspection? **N/A**
- 2. How are mortalities disposed of? **Other (detail)**
- If other detail: **Dead shells fall to seabed**
- 3. Mortality records complete and correctly entered? **N/A**
- 4. Recent mortality (last 4 wks): **No observed mortality**
- 5. Evidence of recent increased/atypical mortalities? **N/A**
- If yes, facility nos/no mortality per facility/no stock per facility/reason: **[REDACTED]**
- 6. Any other peaks in mortality during period checked? **N/A**
- If yes, detail: **[REDACTED]**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? **N/A**
- If yes, detail action: **[REDACTED]**
- 8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet. **N/A**

Treatments and Medicines Records

1. Recent treatments (see comment)?	<input type="checkbox"/>
If yes, detail:	<input type="text"/>
If other, detail:	<input type="text"/>
2. Medicines records available for inspection?	<input type="checkbox"/>
3. Are records complete and correctly entered?	<input type="checkbox"/>
4. Are fish in a withdrawal period?	<input type="checkbox"/>
5. If yes, what treatment(s)?	<input type="text"/>
If other, detail:	<input type="text"/>
6. Are medicines stored appropriately?	<input type="checkbox"/>

Biosecurity Records

1. Biosecurity records available for inspection?	<input type="checkbox"/>	Y
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?	<input type="checkbox"/>	Y
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <i>increased (unexplained)</i> mortality at the site been included?	<input type="checkbox"/>	Y
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 <i>how</i> and <i>when</i> that will be notified to Scottish Ministers?	<input type="checkbox"/>	Y
5. Has the health status of aquaculture animals being stocked on the farm site been covered (equal or higher health status, certification if required)?	<input type="checkbox"/>	Y
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.)?	<input type="checkbox"/>	Y
7. Is documentation available regarding the measures in place to maintain the physical containment of aquaculture animals held on site?	<input type="checkbox"/>	Y
8. Have the biosecurity procedures been adequately implemented on site?	<input type="checkbox"/>	Y
If no, detail:	<input type="text"/>	

Results of Surveillance

1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	N/A
2. If yes, are results available for inspection?	<input type="checkbox"/>	
3. Any significant results?	<input type="checkbox"/>	
If yes, detail (if not detailed under recent disease problems).	<input type="text"/>	

Records checked between:	11/08/2022 - 30/08/2023
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Case Number:	2023-0392	Site No:	SS0838
Date of Visit	30/08/2023	Inspector:	
Number of Susceptible species on site			
If no susceptible species present = LOW risk			
If susceptible species present, score for each pathogen			
		No	Yes
	Susceptible to Bonamia ostrea (OED)	0	25
	Susceptible to Marteilia refringens (OED, MED)	0	3
	Susceptible to OshV (CGI)	0	3
Sites within a tidal excursion			
		1	2-5
			>6
Site contacts	Number of sites holding susceptible species within a tidal excursion	0	2
			10
Live shellfish movements			
		0	1-2
			>3
Movements on	Frequency of movements on from equivalent MS	0	5
	Frequency of movements on from equivalent zone or compartment including third country	0	10
	Number of suppliers	0	5
Movements off	Frequency of movements off <u>within</u> MSS Management Areas	0	1
	Frequency of movements off <u>outwith</u> MSS Management Areas	0	3
	Number of destinations	0	3
Management practices			
		None	Secure (effluent treatment)
			Unsecure (no effluent treatment)
Water contacts with depuration facilities	Depuration of stock from own sites within MSS management area	0	1
	Depuration of stock from other businesses sites within MSS management area	0	2
	Depuration of stock from sites outwith MSS management area	0	4
Biosecurity			
	Number of sites	1	2 or 3
			≥ 4
Contacts with other sites	Sites operating from single shorebase	0	1
	Sites sharing staff and equipment	0	1
			Yes
	Disinfection of equipment between sites, use of footbaths etc	0	2
Total Risk			30
			HIGH



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No	SB0372	DATE OF VISIT	30/08/2023
SITE No	SS0838	SITE NAME	Brindister Inshore
CASE No	20230392	INSPECTOR	[REDACTED]

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

The above site was inspected, in accordance with the Aquatic Animal Health (Scotland) Regulations 2009.

All epidemiological units were inspected. On this occasion no samples were taken for disease analysis. The Inspector did not observe any clinical signs associated with the listed diseases as described in the Aquatic Animal Health (Scotland) Regulations 2009.

Records

The surveillance frequency category of the site was assessed as high. An inspection under the Aquatic Animal Health (Scotland) Regulations 2009 will be conducted annually. The category of the site will be reassessed on a routine basis and updated as required.

The information required for the public record of aquaculture production businesses regarding this site was verified and where necessary updated. The following records were also inspected to ensure that the conditions of authorisation for your Aquaculture Production Business (APB) are being met:

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

No mortality had been observed on site since the last inspection by Marine Directorate .

No animal health surveillance had been carried out on behalf of the business and/or Marine Directorate since the last Marine Directorate inspection.

The biosecurity measures plan for the site was inspected and found to be adequately maintained and implemented.

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

Signed:

Fish Health Inspector

Date: 15/10/2023

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 \(www.gov.scot\)](http://www.gov.scot/resources/consultations-policies/fish-health-inspectorate-service-charter/)