

Case No:	<input type="text" value="2019-0396"/>	Date of visit:	<input type="text" value="28/10/2019"/>			
Time spent on site:	<input type="text" value="3hrs"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="SS0359"/>	Site Name:	<input type="text" value="Sgeir Liath"/>			
Business No:	<input type="text" value="SB0523"/>	Business Name:	<input type="text" value="Lochnell Oysters"/>			
Case Types:	1 <input type="text" value="STS"/>	2 <input type="text" value=""/>	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="13.1"/>	Thermometer No:	<input type="text" value="T153"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	ST	Water type:	S	CoGP MA	
Dead/weak/abnormally behaving fish present?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Clinical signs of disease observed?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Gross pathology observed?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Diagnostic samples taken?	<input type="text" value="N"/>					

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

**Additional Case Information:**

Site inspected following positive *Bonamia ostrea* sample from screening of DEEP. Samples were being screened prior to being input to Dornoch Firth as part of an ongoing project, previous batches have been tested and been negative. The positive samples were from a sub-sample collected from the Sgeir Liath site. The site has not reportedly observed any increased mortalities and very few empty shells were observed. The majority of empty or dead shells observed were from the newest stock, and were reportedly like that on delivery.

The site owner reported that some of the last batches of OED juveniles received this year have contained a higher percentage of other species, including *C. gigas*, clams and also cockles. These are removed at site during grading once the shells are ~20mm.

The site owner reported that the Morecambe hatchery placed the broodshells that were sent for spawning on the beach beside the hatchery. The site owner did not think this was standard practice and wasn't aware that this had been done with previous broodshells. 27 (16%) of the 166 broodstock shells returned from Morecambe hatchery in August were returned dead. The site owner reported that the Morecambe hatchery had reported experienced increased mortalities during the summer, but is unsure of the cause, he reported that this had been attributed to placing on the beach at the hatchery site and lower temperatures.

Bag 1 - Brood shells returned from Morecambe Bay hatchery

Bag 2 - Brood shells from site that hadn't been sent to Morecambe Bay hatchery

Bag 3 - 4 year old brood shells

Bag 4 - 2019 stock from same batch that tested positive

Bag 5 - 2019 stock from same batch that tested positive

Bag 6 - 2019 stock from same batch that tested positive

Bag 7 - 2019 (July) input (8mm at input)

Bag 8 - 2019 (July input - 12-14mm at input)

Bag 9 - 2019 (July input - 12-14mm at input)

Depuration plant inspected. Site owner reported that only own stock depurated, however he has depurated a dozen shells from a local site for the upcoming shellfish conference. The majority of shells are sold at farmers markets or shows.

Shells have been supplied to CEFAS, for research project and Loch Craignish regeneration project. Site still supplying native oysters for the Dornoch Environmental Enhancement Project (DEEP), where the shells are rinsed in freshwater at depuration plant and cleaned by hand to remove any biofouling.

All stock is held in Ortac system, rather than traditional bags, either hanging from trestles or on lines. The plan is to move away from trestles and hold all stock on lines as owner believes that these provide better growth for the shells.

Case No: **2019-0396** Site No: **SS0359**  
 Date of Visit: **28/10/2019** Inspector(s): **[Redacted]**

**Registration/Authorisation Details**

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

**Site Details**

Total No facilities	120		Facilities stocked	80		No facilities inspected	120	
Species	OED	OED	OED	OED	CGI	CGI	MED	
Age group	2015		2017		2018		2019	
No Fish	900		2,500		2,400		180,000	
Mean Fish Wt	Broodstock		20g		10g		5g	
Next Fallow Date (Site)	N/A		Next Input Date (Site)		Unknown			

Recent (last 4 wks) disease problems? **Y** Any escapes (since last visit)? **N**  
 If yes, detail: **Bonamia ostrea identified in samples taken for DEEP.**

**Movement Records**

1. Movement records available for inspection? **Y**  
 2. Date of last inspection: **17/04/2019**  
 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**

**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: **Crushed and used as substrate**  
 3. Mortality records complete and correctly entered? **Y**  
 4. Recent mortality (last 4 wks): **27/09/19 - 3 mortalities removed during grading, 27/10/19 - 28 (3.8%) mortalities observed in 730 shells during grading.**  
 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, add MRT case and enter on mortality events sheet. **N/A**

1. Recent treatments (last 4 wks)?	
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?	N
2. If yes, are results available for inspection?	N/A
3. Any significant results?	
If yes, detail (if not detailed under recent disease problems).	

Records checked between: April 2019 to 28/10/19

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	F11	F12
Fish nos	1	2	3	4	5	6	7	8	9	10	11	12
Pool Group												
Species	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED
Average weight												
Sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Type	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Stock Origin	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)
Facility No												

10/2019 Additional Sample Information:  
 F1: orange; F2: orange, blister shell; F3: orange, pale digestive; F4,F5,F6: orange; F9: slight orange gills; F12: dark discolouration; F13: blistered shell; F16,F17: had baby oyster inside shell (veliger stage) but no effect on oyster growth; F18: shell blistered; F25: limey tube worms; F26: very small animal in big shell; F42,F52,F57,F60,F69,F86,F95,F147,F160: all pale digestive; F194: potencial blister in tissue by beak.

211 Total Tests assigned 2

F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24	F25	F26	F27	F28
13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED	OED
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Morcambe Bay (Returned Brood shells)	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan	Broodstock - Loch Crearan





**Note - attachments file must be saved to ARC folder as PDF with correct name format e.g. 2012-0123-attach or 2012-0123-attach2 etc.**



<b>MARINE SCOTLAND - SCIENCE RECORD SHEET</b>	HI 001	Page 1 of 2
	Issue No	6.00
<b>Condition of Shellfish Samples</b>	Issued By	[REDACTED]
	Date of this Issue:	02/11/2015

Case number:  Site number:

Shellfish species:  Number of live shellfish:

Date of receipt:  Time of receipt:

Date of sampling:   
 Time sampling ended:

Condition of samples on receipt

Icepacks frozen at time of sampling?

F1-15 : Bag 1 : Broodstock returned from morecombe  
 F16-30 : Bag 3 : 4 yrs old  
 F31-77 : Bag 7 : June 2019  
 ↳ whole samples used for molgen (not split into gill/digesta)  
 F78-89 : Bag 7 June 2019 (cont)  
 ↳ samples taken for histology ONLY  
 F90-101 : Bag 7 June 2019 (cont)  
 ↳ whole samples taken for molgen ONLY  
 F102-111 : Bag 2 : Brood not moved off site  
 F112-131 : Bag 4 : June 2019 : subsample tested positive  
 F132-151 : Bag 5 : 2019 : subset tested positive  
 F152-171 : Bag 6 : 2019 : subset tested positive  
 F172-191 : Bag 9 : 2019 North west bay  
 F192-211 : Bag 8 2019  
 ↳ whole samples used for molgen

PTO for organisms



Lochnell Oysters  
Glencoe Etive Park  
North Connel  
by Oban Argyll  
PA37 1SJ

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	SB0523	<b>DATE OF VISIT</b>	28/10/2019
<b>SITE No</b>	SS0359	<b>SITE NAME</b>	Sgeir Liath
<b>INSPECTOR</b>		<b>CASE No</b>	20190396

#### Statutory test

The above site was inspected and samples collected to be screened for the presence of *Bonamia ostreae*. The site was placed under suspicion for the presence of *Bonamia ostreae* following molecular genetic results from samples taken for commercial testing.

No clinical signs associated with *Bonamia ostreae* were observed.

#### Samples

147 *Ostrea edulis* were tested for the presence of *Bonamia ostreae*. Samples were collected according to the table below:

Fish number	Stage	Origin
1 - 15	Broodstock	Morecambe Bay (returned broodstock)
16 - 30	Broodstock	Loch Creran
31 - 101	Juvenile / Grower	Morecambe Bay (July 19 input 8mm)
102 - 111	Broodstock	Loch Creran
112 - 131	Juvenile / Grower	Morecambe Bay (2019 input*)
132 - 151	Juvenile / Grower	Morecambe Bay (2019 input*)
152 - 161	Juvenile / Grower	(Morecambe Bay (2019 input*))

\* Same input batch that tested positive from commercial testing.

## Results

**Molecular genetics:** Tissue samples were tested for a segment of DNA indicative of the presence of the *Bonamia* sp. using real-time PCR (QPCR).

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (QPCR)
F21	12.58	21.13	21.12	21.16	POSITIVE
F22	14.27	21.73	21.72	21.65	POSITIVE
F27	13.12	28.51	28.44	28.46	POSITIVE

F21 and F22 were sequenced and confirmed to be *Bonamia ostreae*.

**Histology:** Tissue samples of gill, mantle and digestive gland were taken from F1 – 75, F77 - 89 and F102 - 161. The tissue samples were fixed in Davidson's fixative.

The results of histological examination of 147 *Ostrea edulis* are

3/30 oyster positive to *Bonamia* sp.

F31-F53 - No evidences of Bonamiosis. (5/11/19).

F54-F72 - No evidences of Bonamiosis. (07/11/19)

F73 - F75 & F77 - F89 & F102 to F131 - No evidences of Bonamiosis. (12/11/2019)

F132 - F142 - No evidences of Bonamiosis.

F143 - Microcells consistent with *Bonamia*.

F144-F161- No evidences of Bonamiosis.

Summary: F21, F22, F27 & F143 displayed microcells consistent with *Bonamia* sp.

## Appraisal

Two samples (F21 and F22) were sequenced and *Bonamia ostreae* was confirmed.

The movement restrictions placed on the site will remain in force. You must continue to apply for permission to move live or dead fish onto or off the site. Please submit applications at least five working days prior to the movement.

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



Signed:

Date: 23/12/19

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

Case No: 2019-0564 Date of visit: 31/10/2019

Time spent on site: 6hrs Main Inspector:

Site No: FS0067 Site Name: Badcall Bay
Business No: FB0398 Business Name: Loch Duart Ltd

Case Types: 1 REP 2 DIA 3 4 5 6

Water Temp (°C): 11.1 Thermometer No: T205 FHI 045 completed

Observations: Region: HI Water type: S CoGP MA M-4

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

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

**Additional Case Information:**

9/8/19 significant plankton bloom recorded from water samples on site. Pseudo-nitzschia and Karenia mikimotoi identified throughout August.

No obvious moribund fish observed but large numbers of fish appeared lethargic and at times were very easy to remove from the pen.

07/11/19 notification from the labs for significant delay for histology samples

Case No: **2019-0564** Site No: **FS0067**

Date of Visit: **31/10/2019** Inspector(s): **[redacted]**

**Registration/Authorisation Details**

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

**Site Details**

Total No facilities	<b>28</b>	Facilities stocked	<b>24</b>	No facilities inspected	<b>28</b>
Species	<b>SAL</b>	<b>WRS</b>			
Age group	<b>2018 S0</b>	<b>wild</b>			
No Fish	<b>107,700</b>	<b>3,270</b>			
Mean Fish Wt	<b>2.9kg</b>	<b>mixed</b>			
Next Fallow Date (Site)	<b>April 2020</b>		Next Input Date (Site)	<b>May 2021</b>	

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? **Y**
- 2. Date of last inspection: **28/08/2017**
- 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: **whole fish to Grays Composting, Fordyce**
- 3. Mortality records complete and correctly entered? **Y**
- 4. Recent mortality (last 4 wks): **wk 40 5,101 morts 4.09%; wk41 3,904 morts 3.26%; wk42 3,026 morts 2.62%; wk 43 4,386 morts 3.89%**
- 5. Evidence of recent increased/atypical mortalities? **Y**
- If yes, facility nos/no mortality per facility/no stock per facility/reason:

**Site split into two cage groups, one cage group markedly more affected. Cage group G most affected particularly pens 17, 24, 25, 28**

- 6. Any other peaks in mortality during period checked? **Y**
- If yes, detail: **August 2017 - increased mortality due to gill health issues (reported at the time)**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? **Y**
- If yes, detail action: **vet visited see below**
- 8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet. **Y**

1. Recent treatments (last 4 wks)?	<input type="checkbox"/>	Y
If yes, detail:	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"/>	N
5. If yes, what treatment(s)?		
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y

**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).	Gill issues suspected environmental origin	
30/8/2019 FVG report - chronic gill issues suspected environmental origin, AGD, bleeding from the gills; subsequent CMS, PD tests negative; Histology suggests repeated waterborne irritants		

Records checked between: 28/08/2017 - 31/10/2019



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	P1						
Fish nos	1	2	3	4	5	1-5						
Pool Group	P1	P1	P1	P1	P1							
Species	SAL	SAL	SAL	SAL	SAL							
Average weight	2kg	2kg	2kg	3kg	3kg							
Sex	N/A	N/A	N/A	N/A	N/A							
Water Type	SW	SW	SW	SW	SW							
Stock Details		Calva Bay	Calva Bay	Calva Bay	Calva Bay	Calva Bay	Calva Bay					
	Stock Origin											
Facility No	C3	G15	G17	G25	G25							

10/2019 Additional Sample Information:

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Total Tests assigned


Case no: 2019-0564

Site No: FS0067

Method of killing: Percussive

Date of visit: 31/10/2019

Inspector(s):

Sheet Relevant: Y

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

Fish Number		F1	F2	F3	F4	F5						
Time sampled after death (if > 45 minutes)		30 min	60 min	90min	120min	150min						
External Signs												
Behaviour	Moribund											
	Lethargic	S	S	S	S	S						
	Hanging vertical											
	Spiralling											
	Flashing											
	Loss of equilibrium											
Body	Dark											
	Distended abdomen											
	Anorexic											
	Scale Oedema											
Opercula	Shortened											
	Flared											
Haemorrhaging	Throat											
	Ventrum											
	Base of fins											
Eyes	Elsewhere											
	Exophthalmic											
	Enophthalmic (sunken)											
	Cataract											
Gills	Haemorrhagic											
	Pale	S	S	S	S	S						
	Zoned	M	W	M	W	W						
Lesions	Necrotic											
	Flank					W						
Vent	Elsewhere											
	Inflamed											
Lice Load	Trailing faeces											
	Estimate numbers											
Internal Signs												
Ascites	Clear											
	Bloody	W	M	M	W	W						
Oedema	In tissues											
Heart	Pale/anaemic											
	Granulomas											
	Deformed											
Liver	Petechial haem	M	M	S								
	Gross haem											
	Tissue breakdown											
	Enlarged											
Pyloric caeca	Colour number(s)		2	2	2	2						
	Granulomas											
	Lesions											
	Petechial haem											
Spleen	Tubules mauve											
	Lack of fat											
	Enlarged											
Gut	Granulomas											
	No food present	S	S	S								
	Yellow pseudo-faeces	M	S	S								
	External haem											
Body wall	Internal haem											
	Haemorrhaging											
	Swim bladder											
Kidney	Fluid filled											
	Swollen											
	Grey	M	M	M	M	M						
General	Granular											
	Liquefied											
	Parasites present											
	Anaemia											

Case no: 2019-0564

Date of visit: 31/10/2019

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

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

Additional comments:

F1 large blood clot in the body cavity, thick membrane over the kidney

F2 eroded dorsal fin

F3 pronounced and enlarged gall bladder

F5 small lesion on the ventral surface of the flank

Site No: FS0067
Case No: 2019-0564
Nature of non-compliance:
Action taken (FHI):
Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology



Case No: 2019-0564

Date of visit: 31/10/2019

Site No: FS0067

Inspector: [REDACTED]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 <sup>nd</sup> Insp
MG_AGDQ	5/5	06/11/2019	[REDACTED]	06/11/2019	[REDACTED]	19/12/2019	[REDACTED]	[REDACTED]
MG_IHN	0/1	06/11/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
MG_IPN	0/1	06/11/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
MG_ISA	0/1	06/11/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
MG_SAV	0/1	06/11/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
MG_VHS	0/1	06/11/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
MG_PARA THER Q	4/5	06/11/2019	[REDACTED]	06/11/2019	[REDACTED]	19/12/2019	[REDACTED]	[REDACTED]
MG_SAL POX	5/5	06/11/2019	[REDACTED]	06/11/2019	[REDACTED]	19/12/2019	[REDACTED]	[REDACTED]
VSPE	3/5	18/11/2019	[REDACTED]	18/11/2019	[REDACTED]	19/12/2019	[REDACTED]	[REDACTED]
PSFL	1/5	18/11/2019	[REDACTED]	18/11/2019	[REDACTED]	19/12/2019	[REDACTED]	[REDACTED]
AMGD	5/5	18/12/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
CGDH	5/5	18/12/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
GPAT	5/5	18/12/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]
SPAT	1/3	18/12/2019	[REDACTED]			19/12/2019	[REDACTED]	[REDACTED]

Report Summary			
Case Type	Date	Insp	2 <sup>nd</sup> Insp
REP, DIA	19/12/2019	[REDACTED]	[REDACTED]

Loch Duart Ltd  
Badcall Salmon House  
Scourie, Lairg  
Sutherland  
IV27 4TH

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0398	<b>DATE OF VISIT</b>	31/10/2019
<b>SITE No</b>	FS0067	<b>SITE NAME</b>	Badcall Bay
<b>INSPECTOR</b>		<b>CASE No</b>	20190564

#### Section 1: Summary

An inspection was conducted to follow up mortality event reports. Environmental, phytoplankton and gill issues were reported. Five lethargic fish were removed for diagnostic sampling.

Histopathology examination revealed multifactorial gill pathology which included the presence of amoebic cells suggestive of amoebic gill disease (AGD) and apoptotic cells consistent with the presence of salmon gill poxvirus (SGPV) both confirmed by QPCR. Due to gill health issues observed on site samples were screened for *Paranucleospora theridion* (syn. *Desmozoon lepeophtherii*) by QPCR and tested positive in four fish.

One fish also displayed a skin lesion that may impact on the osmotic balance of the fish. *Vibro* sp. was identified on plates taken from lesion material of F5 and gill material of F2-3 and F5. The level and purity of growth would suggest this bacterium can be implicated as the primary source of the lesion. *Pseudomonas fluorescens* was also identified on plates taken from gill material of F1, however the level and purity of growth would not suggest it to be would be implicated in fish morbidity at the time. Histopathology also noted mild hepatic necrosis and splenitis.

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

Recurring weekly mortality events had been reported to the Marine Scotland Science Fish Health Inspectorate for the site since the end of August 2019. Mortalities were attributed to an environmental insult, phytoplankton and gill issues. As mortalities above the reporting criteria persisted the site was visited to collect diagnostic samples.

R09



The site consisting of two cage groups had a marked difference in mortalities between the cage groups. No obvious moribund fish were observed on either cage group but fish were very lethargic and could be easily removed from the pens. Fish on the more affected cage group were targeted for sampling.

The gills were very pale and zoned on all five fish sampled. F5 had a small lesion on the ventral surface of the flank. Internally, all five fish had bloody ascites. The livers of F1-F4 were pale and F1-F3 also showed petechial haemorrhaging on the liver. F1-F3 had no food in the gut but yellow pseudo-faeces were present. The kidney had a grey appearance in all 5 fish.

### Samples

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

Fish number	Pool number	Facility number	Species	Stage	Origin
F1	P1	C3	<i>Salmo salar</i>	2.9 kg, 2018 S0	Calva Bay
F2		G15			
F3		G17			
F4-F5		G25			

### Results

**Bacteriology:** Kidney, gill, spleen and lesion material from five fish was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- *Vibrio* sp. in fish: F2-F3 (Gill); F5 (Lesion, Gill)
- *Pseudomonas fluorescens* in fish: F1 (Gill);

The level and purity of growth of *Vibrio* sp. would suggest this bacterium would be implicated as the primary source of the 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).

#### Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.89	34.05	34.40	34.15	POSITIVE
F2	22.24	34.51	34.55	34.51	POSITIVE
F3	22.30	27.41	27.35	27.20	POSITIVE
F4	22.35	40	38.70	40	POSITIVE
F5	22.20	30.54	30.67	30.50	POSITIVE

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

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

*Neoparamoeba perurans* (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.89	29.79	29.67	29.61	POSITIVE
F2	22.24	26.95	26.88	27.04	POSITIVE
F3	22.30	27.61	27.56	27.61	POSITIVE
F4	22.35	28.25	28.23	28.28	POSITIVE
F5	22.20	28.38	28.23	28.23	POSITIVE

*Paranucleospora theridion*

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.89	25.20	25.26	25.15	POSITIVE
F2	22.24	31.59	31.56	31.55	POSITIVE
F3	22.30	29.90	29.86	29.91	POSITIVE
F5	22.20	33.46	33.63	34.06	POSITIVE

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

Histopathological examination by light microscopy revealed the following:

Gill: Mild to moderate multifocal interlamellar hyperplasia and lamellar fusion (F1-F5) and some lacunae on the hyperplastic plaques. Several amoebic cells resembling *Neoparamoeba perurans* noted in all fish and presence of few apoptotic cells. Generalized epithelial lifting (likely associated with post mortem artefact in all fish).

Skin & Muscle: Lesion (F5): epidermal and dermal oedema and mild inflammatory cell infiltration. Focally extended skeletal muscle inflammation and degeneration of fibres. F1-F4: almost no skin in section.

Heart: Small focal area of inflammatory cell infiltration in the atrium chamber and mild pericarditis (F5). Few small thrombi (F2).

Gut and pyloric caeca: Cell sloughing (likely associated with post mortem artefact; F3).

Pancreas: Within normal range.

Liver: Mild multifocal hepatic necrosis (F1-F5), some cuffing (F2, F3) and several foci of macrophage vacuolation (F4, F5).

Kidney: Few glomeruli displaying thickness of vessel basement membrane (F5).

R09

Spleen: Multifocal depletion of white pulp (F3).

Signed:



Fish Health Inspector

Date: 19/12/2019

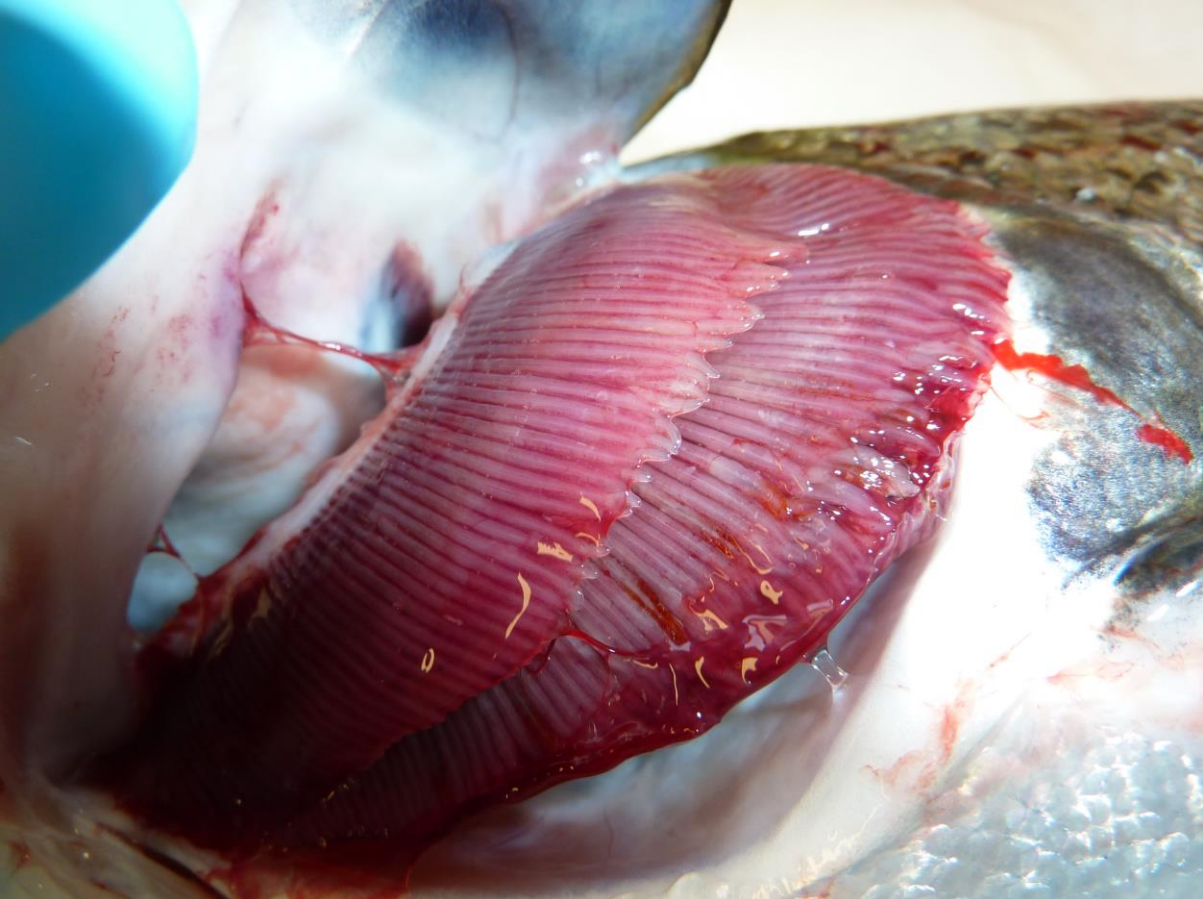
The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

R09

2019-0564

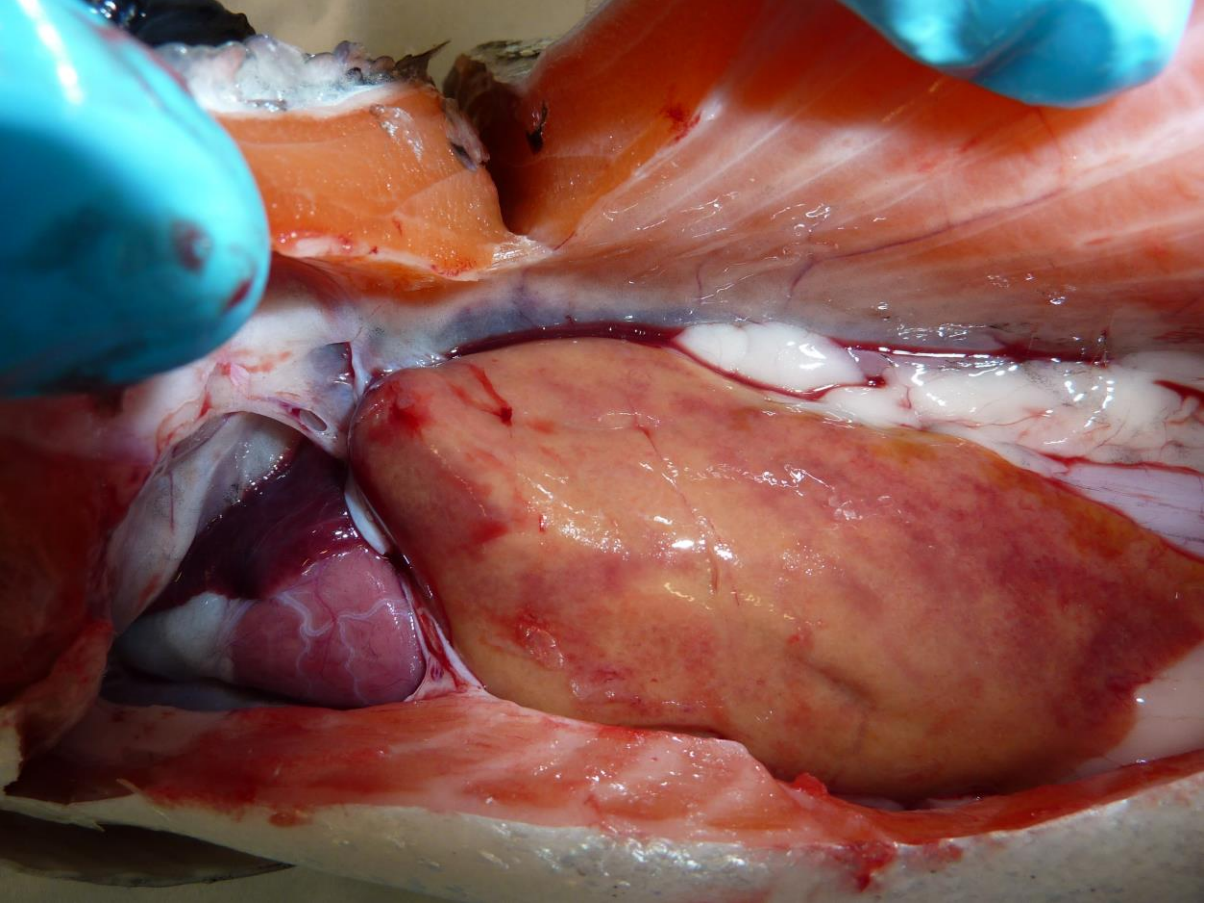
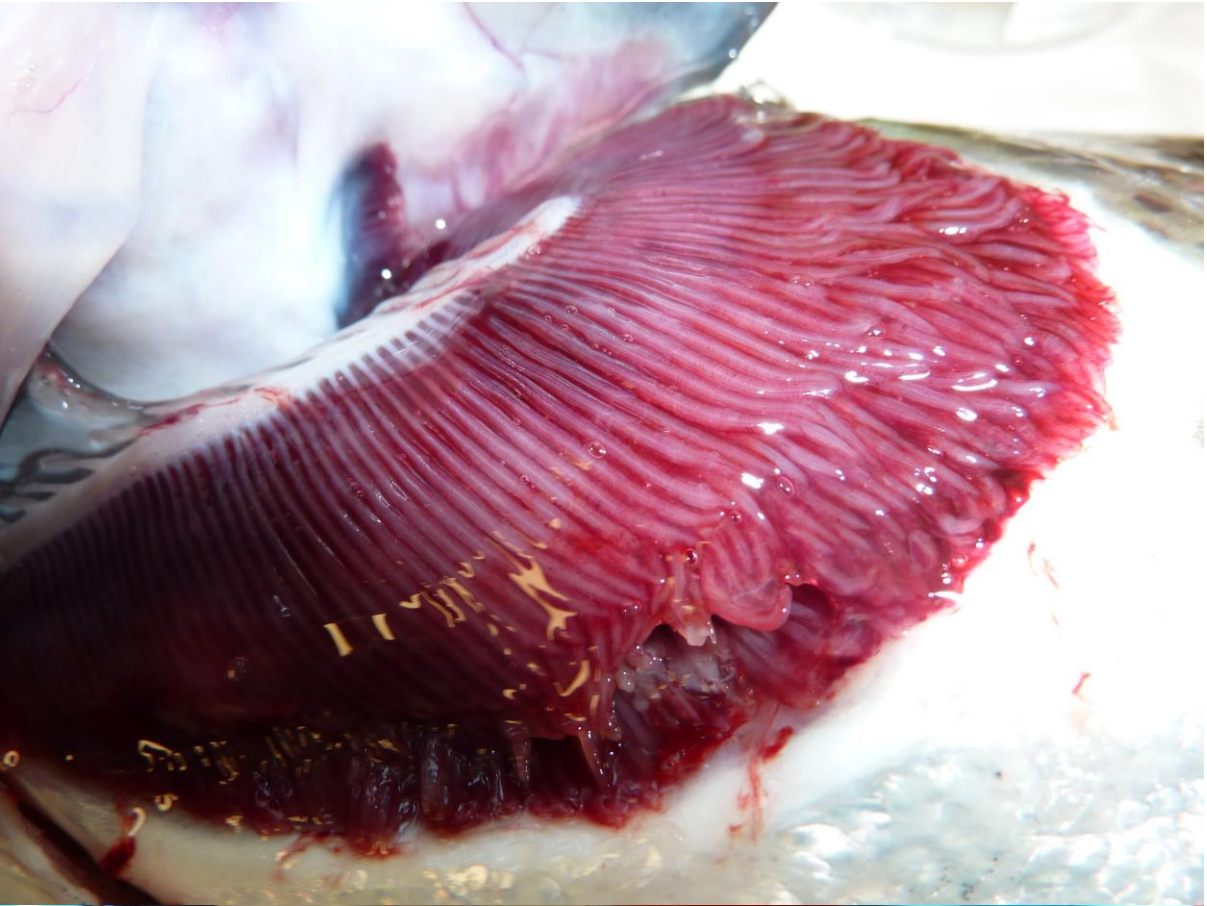
F1

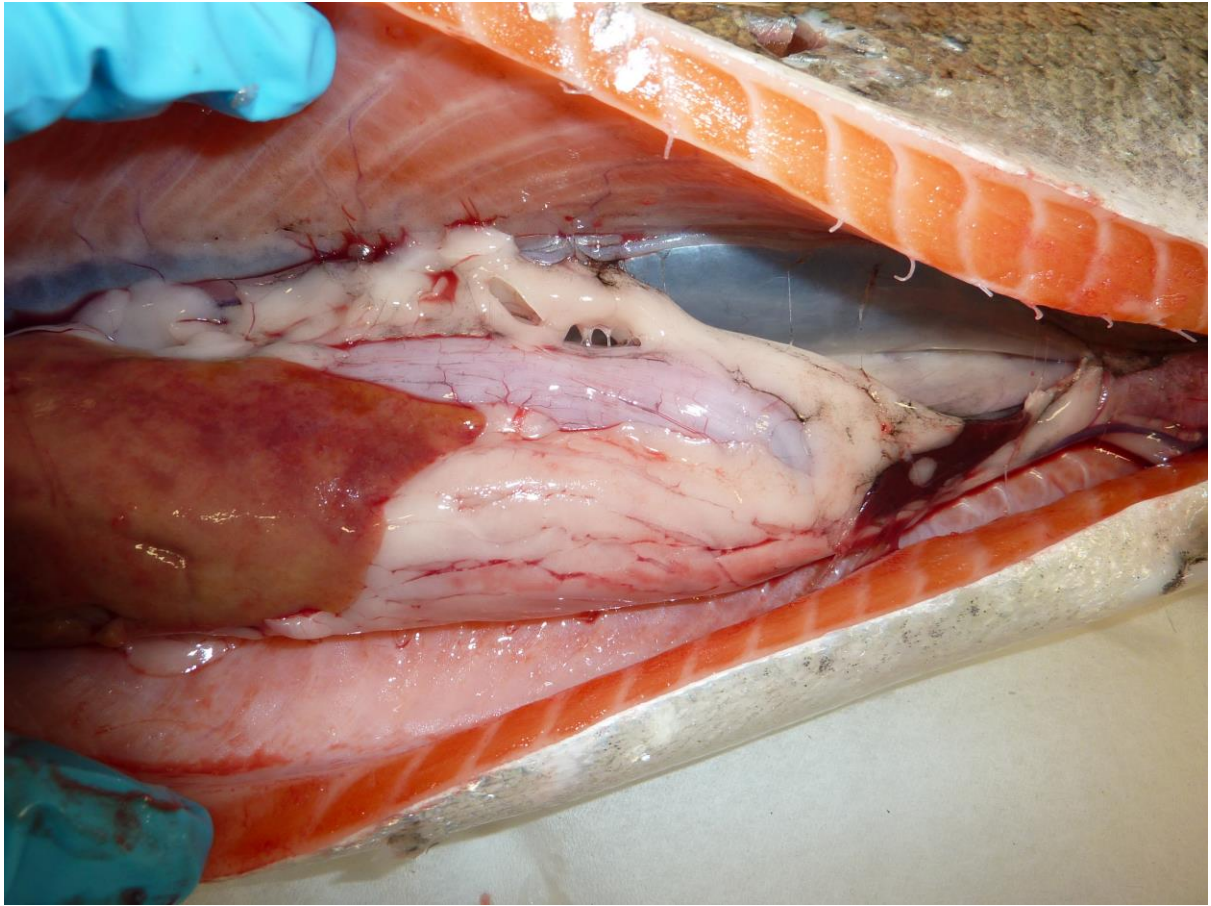




F2



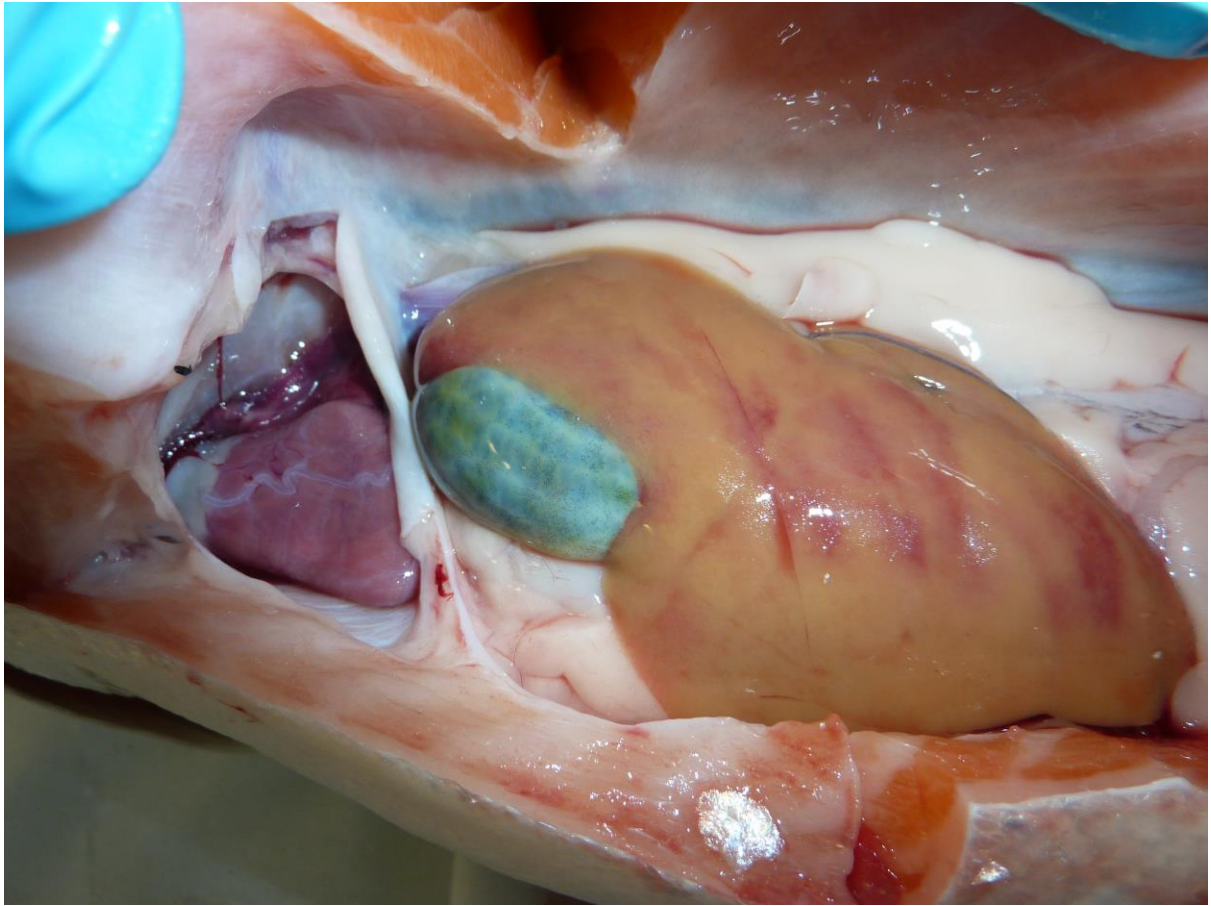






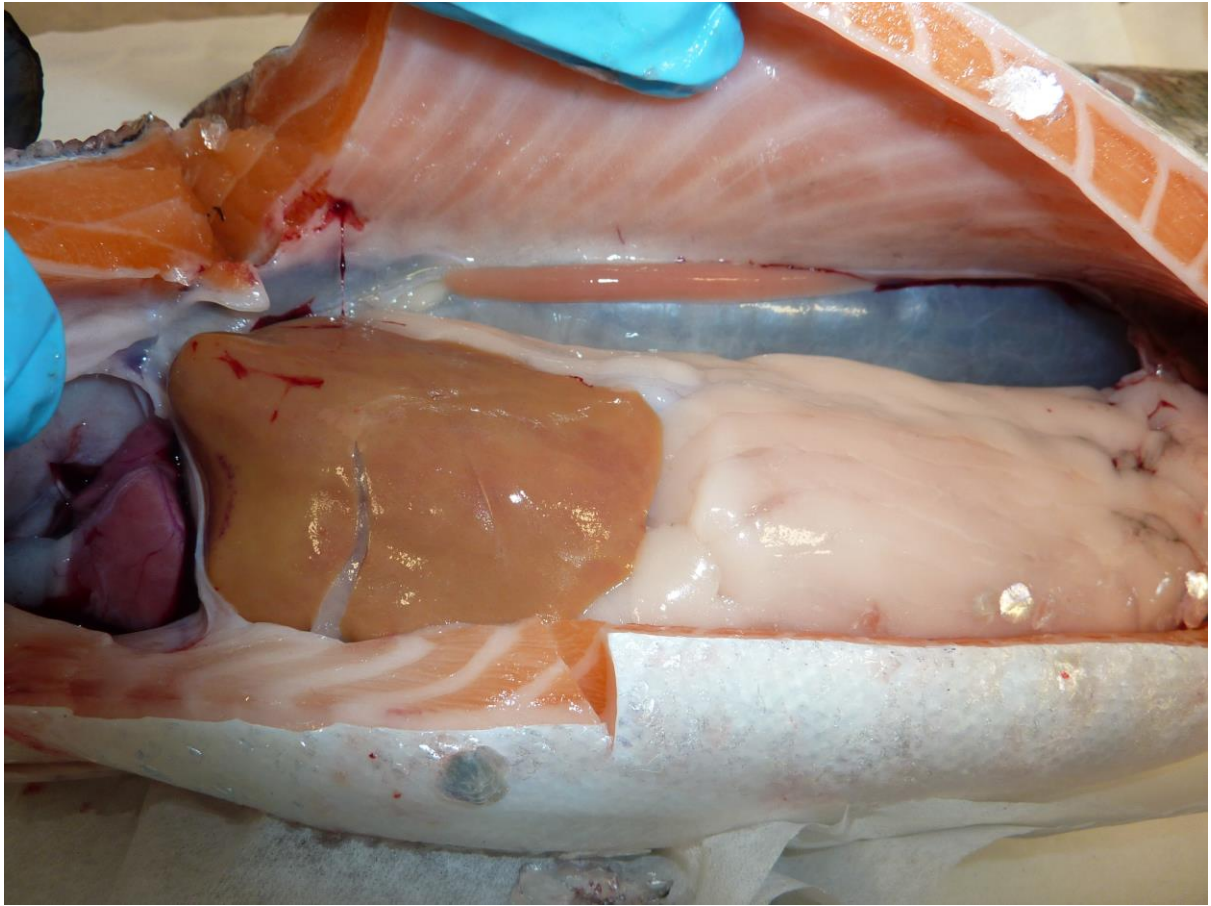
F3





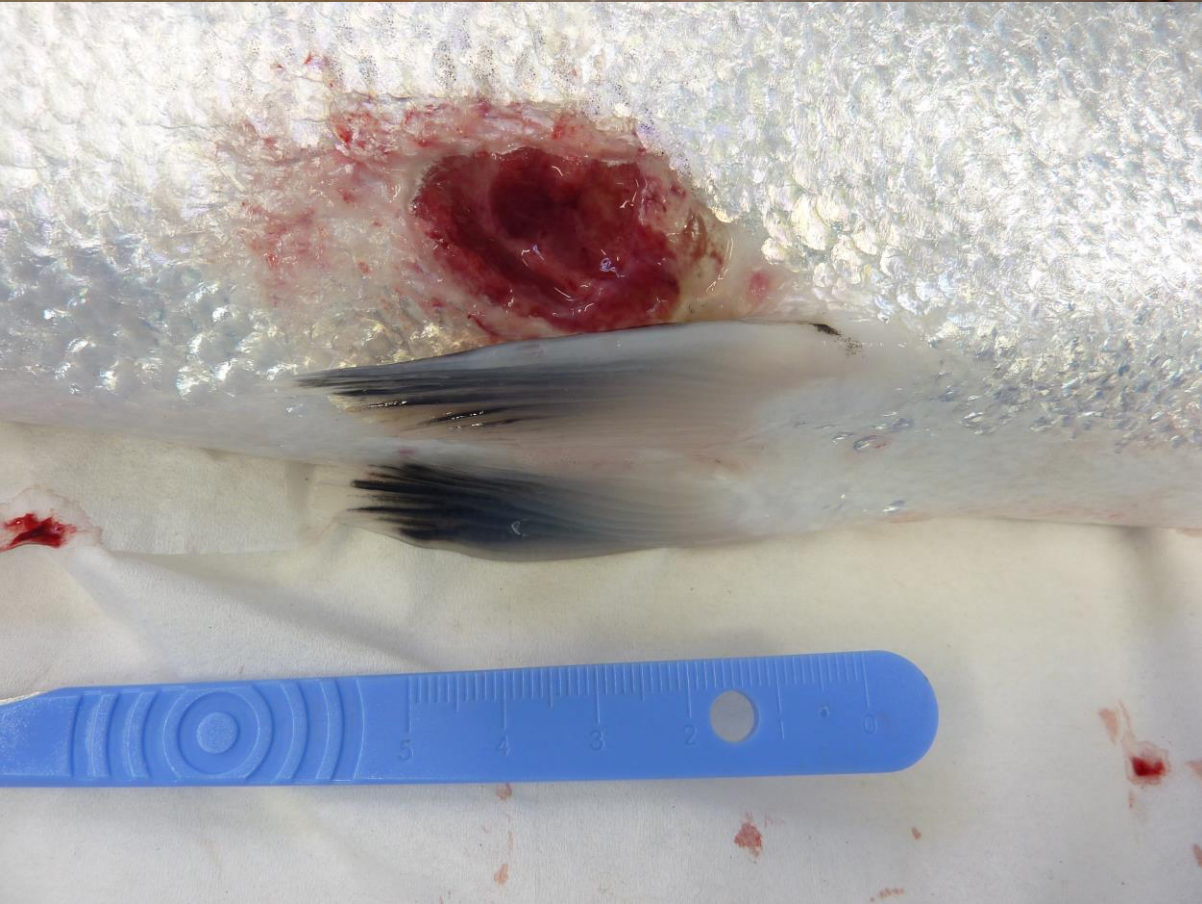
F4





F5





Case No: 2019-0567 Date of visit: 15/10/2019

Time spent on site: 1 HOUR Main Inspector:

Site No: fs0943 Site Name: Marine Scotland Marine Laboratory
Business No: FB0394 Business Name: Marine Scotland Marine Laboratory

Case Types: 1 DIA 2 3 4 5 6

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

Observations: Region: GR Water type: B CoGP MA

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

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

**Additional Case Information:**

Fish 1-4 sampled by [REDACTED]. Fish 5 [REDACTED]

Fish were in FW until 13/10/19.

No report issues as results were passed directly to MS site staff.



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	P1						
Fish nos	1	2	3	4	5	1-5						
Pool Group	P1	P1	P1	P1	P1							
Species	SAL	SAL	SAL	SAL	SAL	SAL						
Average weight	80G	80G	80G	80G	80G	80G						
Sex	N/A	N/A	N/A	N/A	N/A	N/A						
Water Type	SW	SW	SW	SW	SW	SW						
Stock Origin	Lochallort Recirculation Hatchery FS1269	Lochallort Recirculation Hatchery FS1269	Lochallort Recirculation Hatchery FS1269	Lochallort Recirculation Hatchery FS1269	Lochallort Recirculation Hatchery FS1269	Lochallort Recirculation Hatchery FS1269						
	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1						
Facility No	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1	AR2, Tank 1						



Case no: 2019-0567

Site No: fs0943

Method of killing: 

Date of visit: 15/10/2019

Inspector(s): Sheet Relevant: 

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									
	Hanging vertical									
	Spiralling									
	Flashing									
	Loss of equilibrium									
Body	Dark									
	Distended abdomen									
	Anorexic									
	Scale Oedema									
Opercula	Shortened									
	Flared									
Haemorrhaging	Throat									
	Ventrum									
	Base of fins									
	Elsewhere									
Eyes	Exophthalmic									
	Enophthalmic (sunken)									
	Cataract									
	Haemorrhagic									
Gills	Pale									
	Zoned									
	Necrotic									
Lesions	Flank									
	Elsewhere									
Vent	Inflamed									
	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)									
	Granulomas									
	Lesions									
Pyloric caeca	Petechial haem									
	Tubules mauve									
	Lack of fat									
Spleen	Enlarged									
	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:

All fish generally pale internally.

Site No: fs0943

Case No: 2019-0567

Nature of non-compliance:

Action taken (FHI):

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





Case No:	<input type="text" value="2019-0577"/>	Date of visit:	<input type="text" value="17/10/2019"/>			
Time spent on site:	<input type="text" value="11h"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS0245"/>	Site Name:	<input type="text" value="Ardintoul"/>			
Business No:	<input type="text" value="FB0119"/>	Business Name:	<input type="text" value="Mowi Scotland Ltd"/>			
Case Types:	1 <input type="text" value="ECI"/>	2 <input type="text" value="CNI"/>	3 <input type="text" value="SLI"/>	4 <input type="text" value="VMD"/>	5 <input type="text" value="DIA"/>	6 <input type="text" value=""/>
Water Temp (°C):	<input type="text" value="13.1"/>	Thermometer No:	<input type="text" value="T205"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	HI	Water type:	S	CoGP MA	M-21
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:



**Additional Case Information:**

Paperwork completed 14/10/2019, site inspection on 17/10/2019

One movement on of cleaner fish from Ireland. Certificate checked.

Grid shifted by approximately 50 meter in strong tides on 1 September 2019. No damage to the pens and no containment issues observed on site. The moorings were immediately moved back and a new anchor was put in place (seahold 1.5 tonnes, holding strain of 60 tonnes). New concrete blocks to be added to the anchors in due course.

wk40 1.8 female leps, wk41 1.13 female leps Thermolicer treatment started 10/10/2019, finishing 14/10/2019 (between 2-3 pens per day). Good clearance observed so far.

Cleanerfish mortality - Lumpfish: August 2019 10,260 morts in Lumpfish, treated for bacterial infection, September 2019 7,209 morts. October to date: 2,461 morts. Wrasse: August 2019 2,086 and September 2019 3,006 morts. Large number of handling events from treatments likely to have contributed to increased morts.

Prescription dated 13 August 2019 for cleanerfish infeed treatment with Aquatet for bacterial infection.

Pen 6 a few holes, one or two meshes in size, observed above the waterline. Secured with cable ties during the inspection. Pen 8 and pen 10 several small holes (one or two meshes) above the waterline observed and secured. One larger hole observed above the waterline and secured with cable ties. Discussed with site manager to have staff check and stich all holes securely. Lethargic fish observed in all pens. Some morts floating observed in all pens. Five salmon and one lumpfish with damage to the caudal fin removed for diagnostic sampling. Two seals observed in the vicinity of the cages.

Case No: **2019-0577** Site No: **FS0245**  
 Date of Visit: **17/10/2019** Inspector(s): **[Redacted]**

**Registration/Authorisation Details**

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

**Site Details**

Total No facilities	<b>12</b>	Facilities stocked	<b>12</b>	No facilities inspected	<b>12</b>
Species	<b>SAL</b>	<b>WRS</b>	<b>LUM</b>		
Age group	<b>2019 Q1</b>	<b>wild</b>	<b>2019</b>		
No Fish	<b>741,000</b>	<b>54,000</b>	<b>54,000</b>		
Mean Fish Wt	<b>1.5kg</b>	<b>mixed</b>	<b>100g</b>		
Next Fallow Date (Site)	<b>September 2020</b>		Next Input Date (Site)	<b>Jan-21</b>	

Recent (last 4 wks) disease problems? **Y** Any escapes (since last visit)? **N**  
 If yes, detail: **gill issues (AGD, anaemic gills)**

**Movement Records**

1. Movement records available for inspection? **Y**  
 2. Date of last inspection: **22/11/2017**  
 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? **Y**

**Transport Records**

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

**Mortality Records**

1. Mortality records available for inspection? **Y**  
 2. How are mortalities disposed of? **Other (detail)**  
 If other detail: **normally incinerated on shore, due to higher mortality one transport of whole fish to Cumbernauld**  
 3. Mortality records complete and correctly entered? **Y**

4. Recent mortality (last 4 wks): **SAL: w/b 9/9/19 1,641 morts per site (0.20%); w/b 16/9/19 1617 morts per site (0.19%); w/b 23/9/19 9,651 morts per site (1.18%); w/b 30/9/19 43,456 morts per site (5.41%); w/b 7 /10/19 17,094 morts per site (2.25%). Total morts from 9/9/19 to 13/10/19 73,459 (9.01%).**

5. Evidence of recent increased/atypical mortalities? **Y**  
 If yes, facility nos/no mortality per facility/no stock per facility/reason:

**SAL: Mortality starting to increase across the site 28/29 September between 0-500 per pen over two days. 30/9/19 5,600 morts pen 1, 1,700 morts each in pen 3, 5, 7. 1/10/19 1,750 pen 7, 1,500 morts pen 9, 1,850 morts pen 10, 2,500 morts pen 11, 2,250morts pen 12. 2/10/19 2,125 morts pen 2, 2,825 morts pen 4, 1,065 morts pen 6, 3,500 pen 8, 3,150 morts pen 12. 3/10/19 2,100 morts pen 9. 3/10/19 and following days morts sharply drop off to mid-low hundreds or double digit figures. Occasional higher numbers : 9/10/19 pen2 900 morts, 11/10/19 1,250 morts pen 3, 12/10/19 1,400 morts pen 6, 13/10/19 1,610 morts pen 7, 1,090 morts pen 10. But overall decreased to low hundreds (occasional mid hundred) and double digits per pen per day. Over the last month (9/9-13/10) most mortalities attributed to anaemia (48,879 morts) and peroxide treatment (10,700 morts total from pen 1,3,5 and 7 only). 10/10/2019 5,220 morts attributed to thermolicer treatments. This is due to gill issues and the fish being slightly too small. Normally considerable lower post treatment morts.**

6. Any other peaks in mortality during period checked? **Y**

If yes, detail: **SAL: On input slight increase in pen 6 and pen 10 due to fungus. Some mortality attributed to seal predation. Seal targeting very small fish in specific pens repeatedly (pen 10). Persistently increasing morts from seal predation 1,365 morts in June 2019. July 2019 3,221 morts due to concussions due to increased Caligus burdens. Slice treatment administered. August 2019 6,380 morts attributed to Salmosan treatment, 2,185 morts attributed to thermolicer. Total morts for September 29,065 attributed to anaemia, two peroxide treatments, thermolicer and decomposed.**

7. Have increased (unexplained) mortalities been reported to vet or FHI? **Y**

If yes, detail action:

vet attended.

8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet.

Y

1. Recent treatments (last 4 wks)?	<input type="checkbox"/>	Y
If yes, detail:	H2O2, 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"/>	N
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	T.M.S.	
If other, detail:		
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y
<b>Biosecurity Records</b>		
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:		
<b>Results of Surveillance</b>		
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).	AGD and anaemia (pale gills)	
Company vet report from 25/9/2019. Advance AGD and anaemia on site. Peroxide treatment ordered which is expected to cause some mortality in severely anaemic fish. Anaemia diet has been started. Higher than normal levels of cataracts observed on site. Change in feed to support eye problems. Health report from 26 August due to unexpected high post treatment (Salmosan) morts, further lice treatment required, poor gill health with obvious AGD lesions, gills also appear affected by relatively recent environmental source, no plankton recorded so to investigate jellyfish. Health report 8/8/19 noting high mortalities due to concussion. Health report 24/01/2019 increased input morts due to previously diagnosed health issues in freshwater (fungus).		
Records checked between:	22/11/2017 - 14/10/2019	

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	P1	F6					
Fish nos	1	2	3	4	5	1-5	6	7	8	9	10	
Pool Group	P1	P1	P1	P1	P1							
Species	SAL	SAL	SAL	SAL	SAL	SAL	LUM	SAL	SAL	SAL	SAL	
Average weight	1kg	1kg	1kg	1kg	1kg		600g	1.5kg	1.5kg	1.5kg	1.5kg	
Sex	N/A	N/A	N/A	N/A	N/A		N/A	N/A	N/A	N/A	N/A	
Water Type	SW	SW	SW	SW	SW		SW	SW	SW	SW	SW	
Stock Origin	Loch Loch & Lochailort	Loch Loch & Lochailort	Loch Loch & Lochailort	Loch Loch & Lochailort	Loch Loch & Lochailort		Ocean Matters Angelsey	Loch Loch & Lochailort	Loch Loch & Lochailort	Loch Loch & Lochailort	Loch Loch & Lochailort	
	Facility No	11	7	9	7	11	7	2	8	10	12	



Case no: 2019-0577

Site No: FS0245

Method of killing: Percussive

Date of visit: 17/10/2019

Inspector(s):

Sheet Relevant: Y

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

Fish Number		F1	F2	F3	F4	F5	F6						
Time sampled after death (if > 45 minutes)			75min	105min	135min	165min	195min						
External Signs													
Behaviour	Moribund						W						
	Lethargic	S	S	S	S	S							
	Hanging vertical												
	Spiralling												
	Flashing												
	Loss of equilibrium												
Body	Dark												
	Distended abdomen												
	Anorexic		W		W								
	Scale Oedema												
Opercula	Shortened	W			M	M							
	Flared												
Haemorrhaging	Throat												
	Ventrum												
	Base of fins												
	Elsewhere												
Eyes	Exophthalmic												
	Enophthalmic (sunken)												
	Cataract												
	Haemorrhagic												
Gills	Pale	M	M	W	M	M							
	Zoned	W		M	W	M							
	Necrotic												
Lesions	Flank												
	Elsewhere												
Vent	Inflamed												
	Trailing faeces												
Lice Load	Estimate numbers												
Internal Signs													
Ascites	Clear												
	Bloody			W	W								
Oedema	In tissues												
Heart	Pale/anaemic												
	Granulomas												
	Deformed												
Liver	Petechial haem		S	W	W								
	Gross haem												
	Tissue breakdown												
	Enlarged												
	Colour number(s)		3		4	4	3						
	Granulomas												
	Lesions												
Pyloric caeca	Petechial haem												
	Tubules mauve												
	Lack of fat												
Spleen	Enlarged												
	Granulomas	S											
Gut	No food present												
	Yellow pseudo-faeces			W									
	External haem												
	Internal haem												
Body wall	Haemorrhaging												
Swim bladder	Haemorrhaging												
	Fluid filled												
Kidney	Swollen												
	Grey	M		M		M							
	Granular	W		W		M							
	Liquefied												
General	Parasites present												
	Anaemia	M	M	M	M								





## Additional comments:

F4 large amount of blood clots in the body cavity and surrounding the heart. Majority of salmon sampled showed early signs of maturation.

F6 lumpfish had the majority of the caudal fin missing. Lesion sample from open wound on the remains of the caudal fin.

Case Number:	2019-0577	Site No:	FS0245	Insp:	
Date of Visit	17/10/2019	No of movements/supp./dest.			Score
<b>Live fish movements</b>		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
<b>Exposure via water</b>	<b>Site contacts</b>	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	2
	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	
<b>Management practices</b>		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			
	Common processes with other farms	3			3
	Collection point for waste from other farms	5			
Use of unpasteurised feeds	No feeding of unpasteurised feed	0			0
	Feeding unpasteurised feed	5			
<b>Biosecurity</b>	<b>Number of sites</b>	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	1
Disinfection of equipment between sites, use of footbaths etc	Yes	0			0
	No	1			
<b>CoGP/Regulator</b>					
Practices in accordance with regulator or industry code of practice	Yes	0			0
	No	3			
Platform access to cages	Yes	0			0
	No	2			
<b>Total Rank</b>					<b>30</b> <b>HIGH</b>

Case No: **2019-0577**

Site No: **FS0245**

**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?
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)

If other, detail below:

**ADD, seal blinds, double mesh first meter and around mort sock, tensioned nets, MML, top nets,**

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: 2019-0577

Site No: FS0245

Date of Visit: 17/10/2019

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?

Site No: FS0245
Case No: 2019-0577
Nature of non-compliance:
Action taken (FHI):
Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology



Case No: 2019-0577

Date of visit: 17/10/2019

Site No: FS0245

Inspector: [Redacted]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 <sup>nd</sup> Insp
A. salmonicida	1/6	05/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Vibrio sp. (Isolate C)	5/6	05/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Shewanella sp.	1/6	05/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
VHS	0/2	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
IPN	0/2	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
IHN	0/1	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
ISA	0/1	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
SAV	0/1	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Rana	0/1	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
SGPV	5/5	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
P. therdion	5/5	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
AGD	5/5	07/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Vibrio sp. (Isolate B)	1/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
ADHE	1/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
CGDH	5/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
GPAT	6/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
PMCH	3/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
SPAT	1/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
AERH	1/6	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Noda	0/1	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
Flavi	0/1	26/11/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	
VI General	0/1	16/12/2019	[Redacted]	16/12/2019	[Redacted]	18/12/2019	[Redacted]	

Report Summary	Date	Insp	2 <sup>nd</sup> Insp
Case Type			
ECI,CNI, SLI, VMD	25/11/2019	[Redacted]	[Redacted]
DIA	18/12/2019	[Redacted]	[Redacted]
case completion	18/12/2019	[Redacted]	[Redacted]

[REDACTED]  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
Fort William  
PH33 6RX  
[REDACTED]

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	17/10/2019
<b>SITE No</b>	FS0245	<b>SITE NAME</b>	Ardintoul
<b>INSPECTOR</b>	[REDACTED]	<b>CASE No</b>	20190577

#### Section 1: Summary

During a routine site inspection moribund fish were observed on site and five Atlantic salmon and one lumpfish were removed for diagnostic sampling.

Histopathological examination showed the lumpfish (F6) displayed features of systemic bacterial infection (likely *Aeromonas* sp.). Heavy pure growth of *Aeromonas salmonicida* was identified from kidney material of the lumpfish, and at the level and purity of growth observed on plates taken suggests this bacterium was implicated in the fish morbidity.

Histopathology examination of the A. salmon (F1-F5) revealed mild multifactorial gill pathology and one fish displayed splenitis. Due to gill health issues observed on site samples were screened for *Neoparamoeba perurans* (AGD), salmon gill poxvirus (SPGV) and *Paranucleospora theridion* (syn. *Desmozoon lepeophtherii*) by QPCR and tested positive for all three pathogens.

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

Increased mortalities due to complex gill issues had been reported from the site in the lead up to the inspection. Week beginning 23/9/19 1.18% salmon mortality; w/b 30/9/19 5.41% salmon mortality; w/b 7 /10/19 2.25% salmon mortality. Cleanerfish mortality was found to elevated on the site as well with lumpfish particularly affected. Mortalities attributed to a bacterial infection had peaked in August and after a treatment had been declining but were still elevated at the time of visit with 2,461 lumpfish mortalities reported from 1-17 October 2019. At the time of the visit

R09



moribund fish and some floating mortalities were observed in all cages. Five Atlantic salmon and one lumpfish were removed for diagnostic sampling.

All five salmon were severely lethargic and the lumpfish was moribund showing signs of difficulty maintaining its position in the water due to extensive damage to the caudal fin. F2 and F3 were slightly anorexic and F1, F4 and F5 had shortened opercula. All five salmon had pale gills and the gills of F1, F3-F5 had a zoned appearance.

Internally F3 and F4 had bloody ascites and F2-F4 showed petechial haemorrhaging on the liver, with pale livers recorded in F1, F3-F5. The spleen was enlarged in F1 and yellow pseudo-faeces were present in F3. The kidney appeared grey and granular in F1, F3 and F5. General anaemia was observed in F1-F4.

### Samples

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

Fish number	Pool number	Facility number	Species	Stage	Origin
F1	P1	11	<i>Salmo salar</i>	1.5kg, 2019 Q1	Loch Lochy and Lochailort
F2	P1	7			
F3	P1	9			
F4	P1	7			
F5	P1	11			
F6	N/A	7	<i>Cyclopterus lumpus</i>	100g, 2019	Ocean Matters Angelsey

### Results

**Bacteriology:** Kidney, gill and lesion material from five salmon and kidney and lesion material from one lumpfish was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated from one lumpfish:

- *Aeromonas salmonicida*: F6 (kidney)
- *Vibrio* sp (Isolate B): F6 (kidney)
- *Vibrio* sp. (Isolate C): F6 (lesion)
- *Shewanella* sp.: F6 (lesion)

*Aeromonas salmonicida*, which is a primary fish pathogen, was observed at a level and purity which would be significant in the morbidity of F6 (Lumpfish). The observed level and purity of growth of the two *Vibrio* spp. and *Shewanella* sp. would suggest they are likely to be present as opportunist pathogens in this case.

The following bacteria were isolated from five A. salmon:

- *Vibrio* sp. (Isolate C): F2-F5 (gill)

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

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.62	25.48	25.52	25.34	POSITIVE
F2	21.91	23.65	23.65	23.39	POSITIVE
F3	21.91	26.34	26.22	26.08	POSITIVE
F4	24.64	29.23	28.90	29.18	POSITIVE
F5	20.95	25.68	25.66	25.22	POSITIVE

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

The samples collected from one lumpfish (F6) also tested negative for VHS, viral nervous necrosis virus, *Cyclopterus lumpus* flavivirus and European North Atlantic ranavirus.

A general screen was conducted on tissue samples from one lumpfish (F6) to test for the presence of viral pathogens by cell culture. The result of this test was negative.

**Parasitology:** One gill arch was collected from one lumpfish (F6). No parasites or white patches indicative of AGD were observed.

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	21.62	32.75	32.52	32.86	POSITIVE
F2	21.91	27.98	28.02	27.62	POSITIVE
F3	21.91	32.81	33.01	32.80	POSITIVE
F4	24.64	29.91	29.86	29.92	POSITIVE
F5	20.95	28.84	28.88	28.81	POSITIVE

*Paranucleospora theridion*

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	21.62	26.69	26.71	26.55	POSITIVE
F2	21.91	22.33	22.28	22.10	POSITIVE
F3	21.91	29.89	30.19	29.76	POSITIVE
F4	24.64	23.30	23.25	23.24	POSITIVE
F5	20.95	26.70	26.54	26.80	POSITIVE

**Histology:** Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen and kidney were taken from F1-F6. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination from 5 Atlantic salmon and 1 lumpfish by light microscopy revealed the following:

Gill: Mild multifocal interlamellar hyperplasia and lamellar fusion (F1-F6), cell apoptosis, few basophilic epithelial inclusions (likely epitheliocystis) (F2), some synechia. Few scattered aneurysmal dilation/telangiectasia and lamellar thrombosis (F1-F5) and free blood among gill filament. F1 displayed one gill filament with focally extended area showing infiltration of neutrophil-like cell and marked number of small unknown-structures that stained Gram-negative. F6 displayed marked lamellar congestion and a focal area with aggregates of bacteria, resembling *Aeromonas* sp. and cell debris among gill filament. Generalised epithelial lifting (likely post mortem artefact) (F4-F6).

Skin & Muscle: Within normal range.

Heart: Mild pericarditis (F1, F3, F4) and small foci of inflammatory cell infiltration in the atrium and ventricle cavity (F1, F3). F1 also displayed within the atrium a small foci of inflammatory cells and few small unknown-structures. F6 displayed two areas of aggregates of bacteria (likely *Aeromonas* sp.)

Gut and pyloric caeca: Moderate cell sloughing (likely post mortem artefact). Some fibrous adhesions likely associated with vaccine administration.

Pancreas: Within normal range.

Liver: Mild multifocal hepatic necrosis (F1-F5), thickness of the hepatic capsule and some cuffing (F4) and some diffuse hepatocyte vacuolation (F3).

Kidney: Within normal range.

Spleen: Several large areas of haematopoietic tissue depletion, displaying inflammatory cell infiltration and marked number of small unknown-structures that stained Gram-negative. F6 displayed a small foci of cell necrosis with aggregates of bacteria, resembles *Aeromonas* sp. Some fibrous adhesions likely associated with vaccine administration.

Signed:



Fish Health Inspector

Date: 18/12/2019

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

[REDACTED]  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
Fort William  
PH33 6RX  
[REDACTED]

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	17/10/2019
<b>SITE No</b>	FS0245	<b>SITE NAME</b>	Ardintoul
<b>INSPECTOR</b>	[REDACTED]	<b>CASE No</b>	20190577

#### Case completion report

Recommendations in relation to the above case were made for implementation by 25 December 2019. Following submission of the required documentation, evidence has now been provided to Marine Scotland 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]

Fish Health Inspector

Date: 18/12/2019

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

██████████  
Mowi Scotland Ltd  
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## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	17/10/2019
<b>SITE No</b>	FS0245	<b>SITE NAME</b>	Ardintoul
<b>INSPECTOR</b>	██████████	<b>CASE No</b>	20190577

#### Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

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

Samples were taken for diagnostic purposes. A separate report will be issued detailing the results of these tests.

#### 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 found to be inadequately maintained.

Records in relation to aquaculture animals transported by the business were inspected and found 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.

R25

Reports detailing the results of animal health surveillance carried out by or on behalf of the business and/or Marine Scotland 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. It was discussed with the site manager that this would be recorded in future. No further action is required.

These must be addressed to ensure the conditions of authorisation for your Aquaculture Production Business (APB) are being met.

### **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 inadequately maintained.

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

- Treatment records were not maintained for food-producing part populations which may unintentionally have been exposed to a veterinary medicinal product (VMP) intended for a non-food-producing part population (e.g. cleaner fish). Treatment records must be maintained and withdrawal periods must be observed for any part population which may unintentionally be exposed to a VMP.

Records or documentation demonstrating that these points have been addressed should be sent to the Fish Health Inspectorate (contact details below) within 30 days of the date this report was issued.

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, fish farm management agreements and statements and containment and escapes.

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:



Fish Health Inspector

Date: 25/11/2019

R25

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

R25

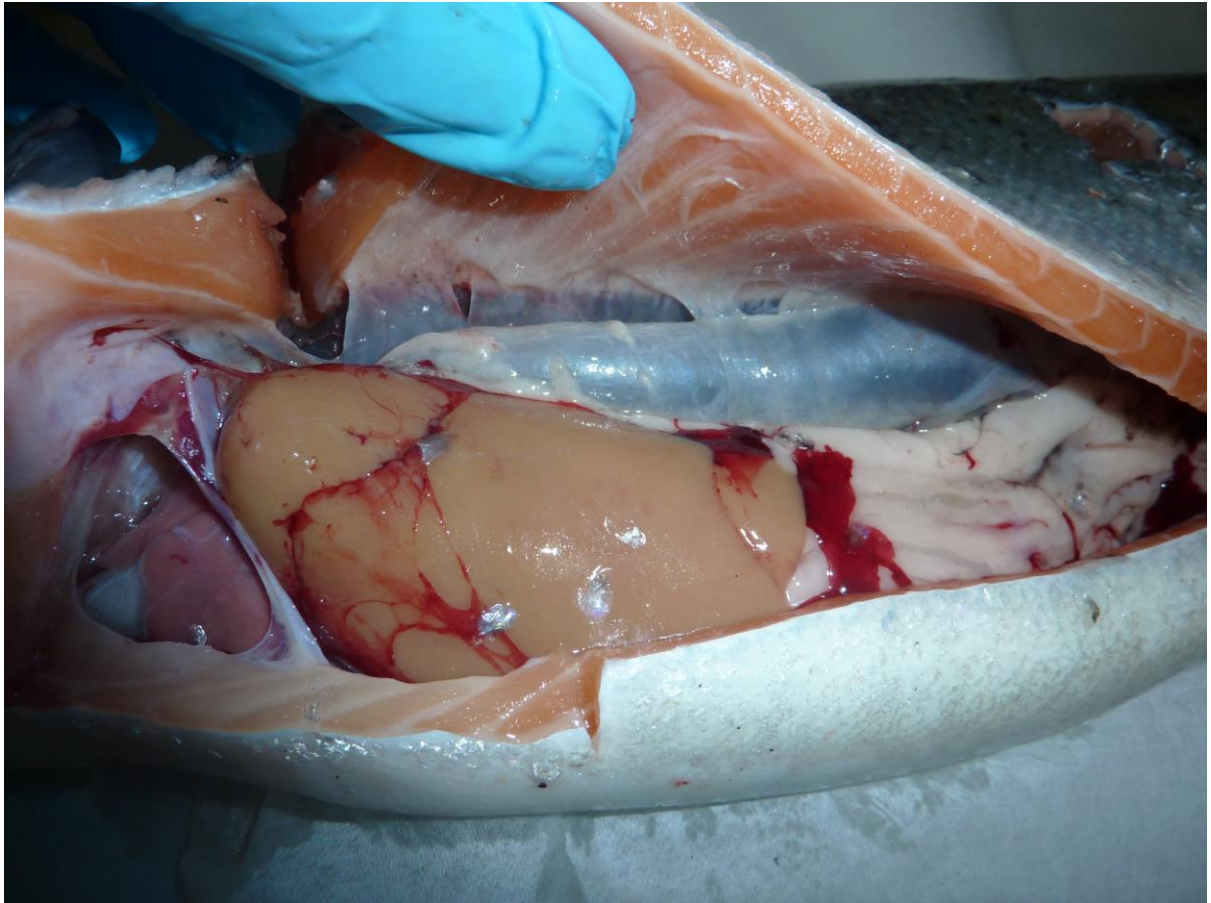
Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB  
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - [ms.fishhealth@gov.scot](mailto:ms.fishhealth@gov.scot)  
Website - [www.gov.scot/Topics/marine/science](http://www.gov.scot/Topics/marine/science)

2019-0577

F1

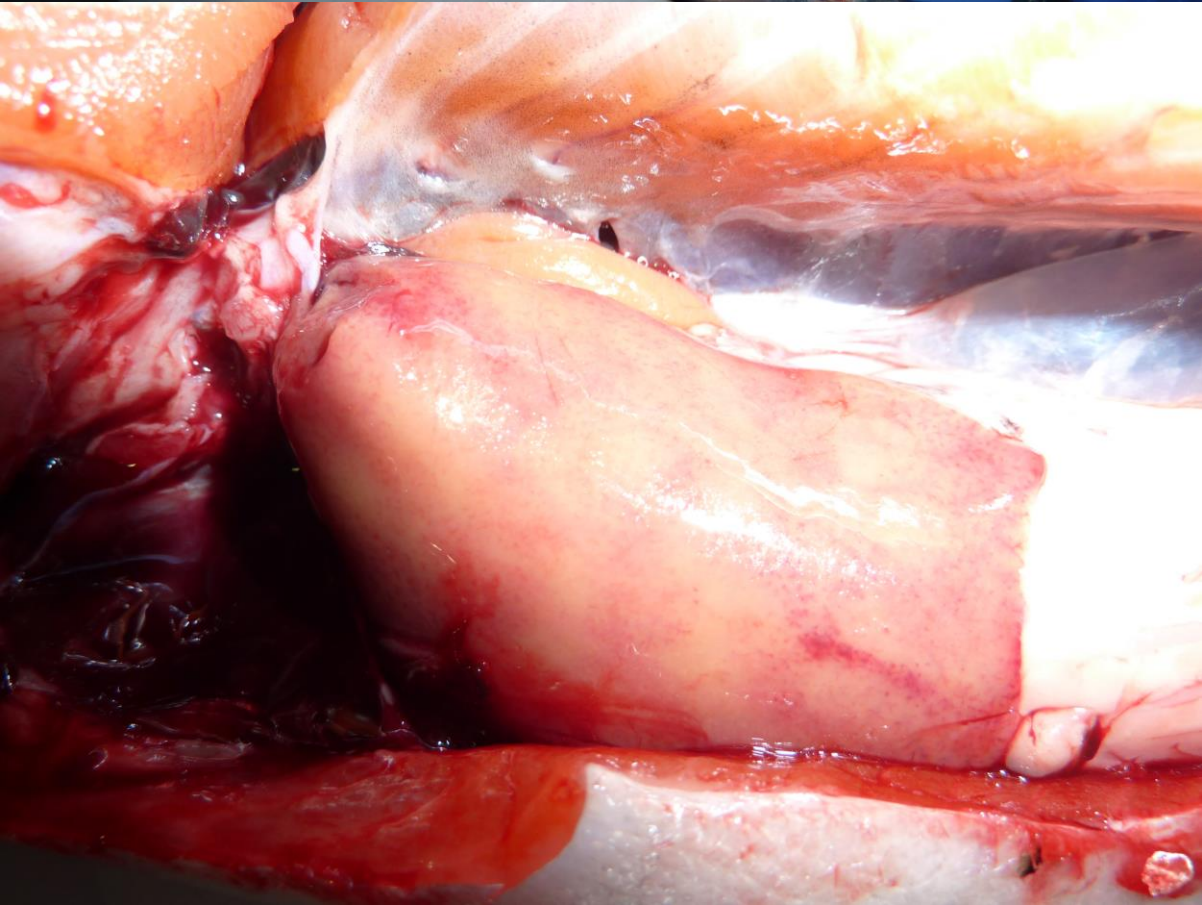
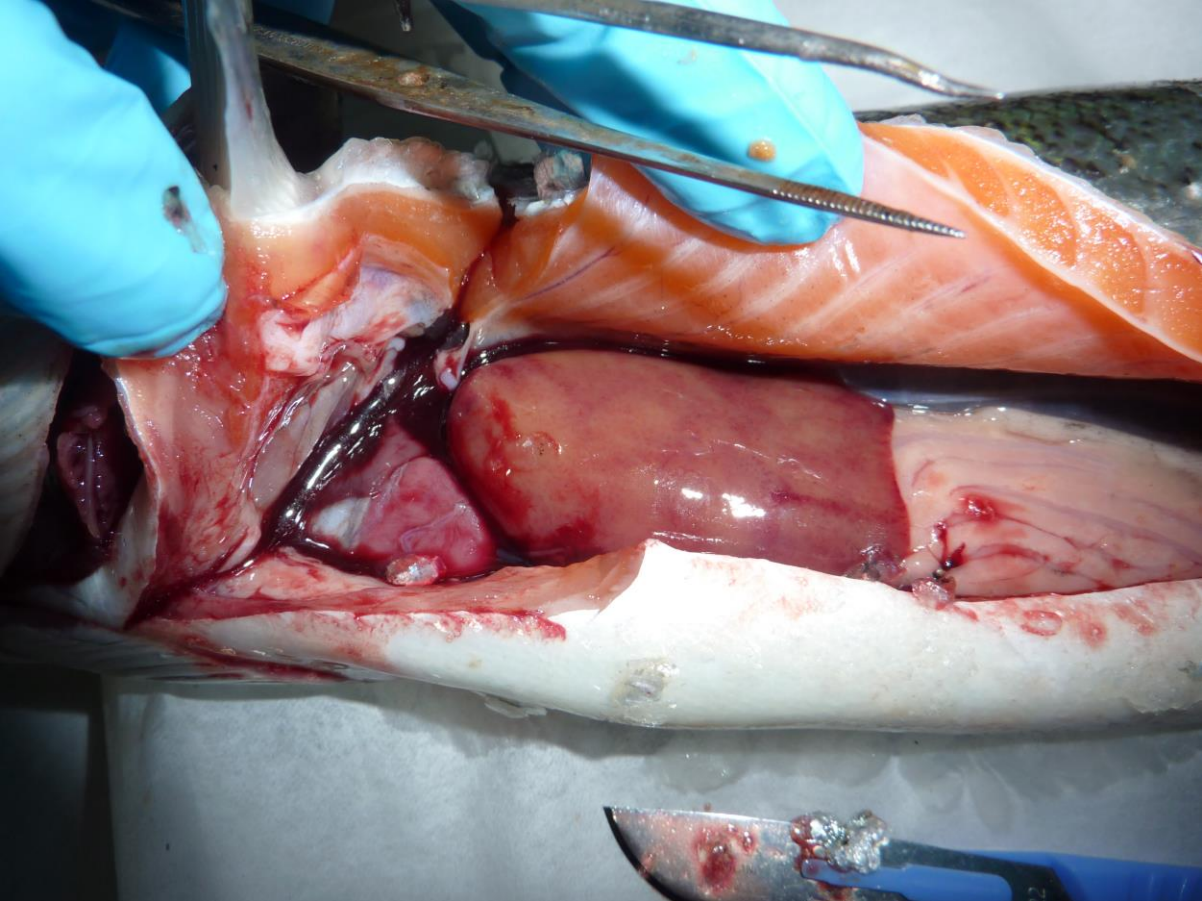






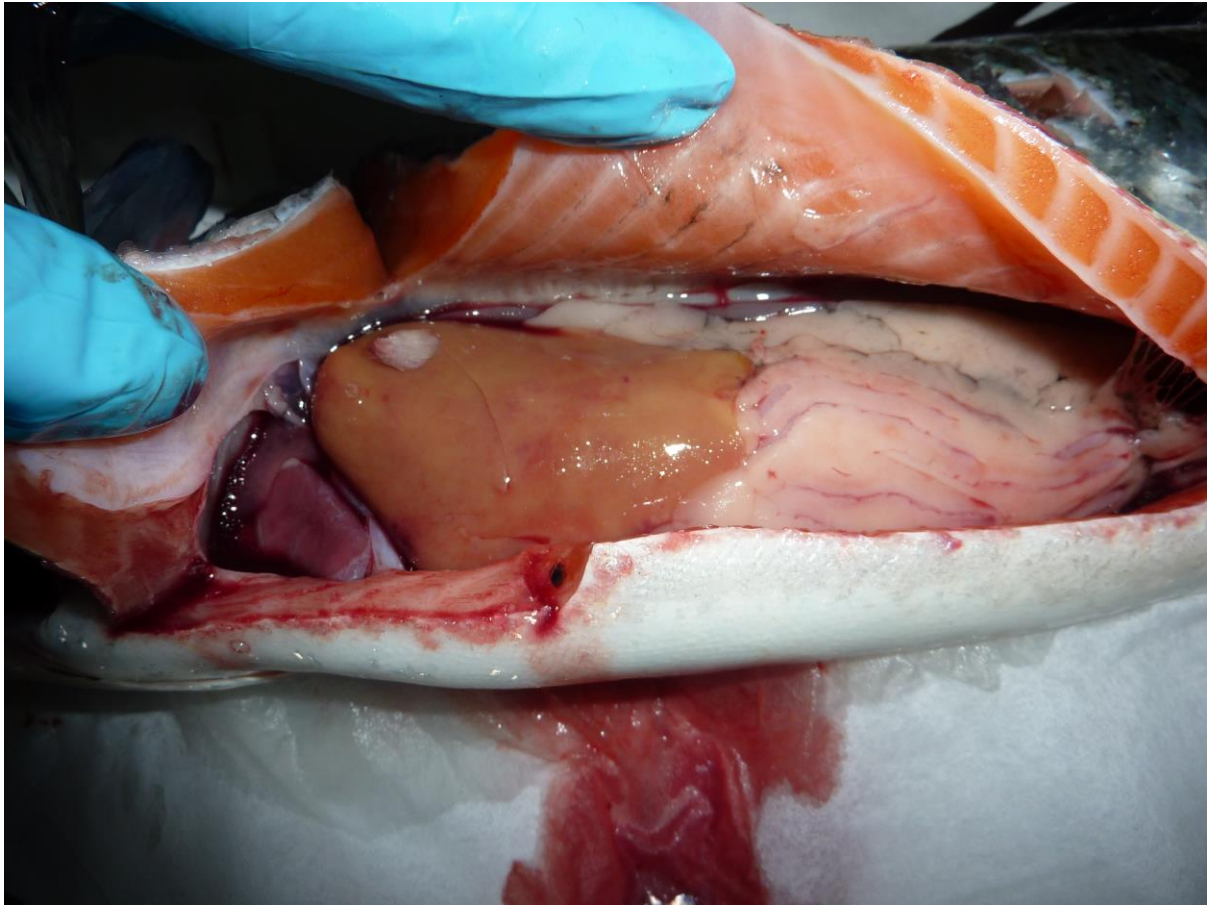
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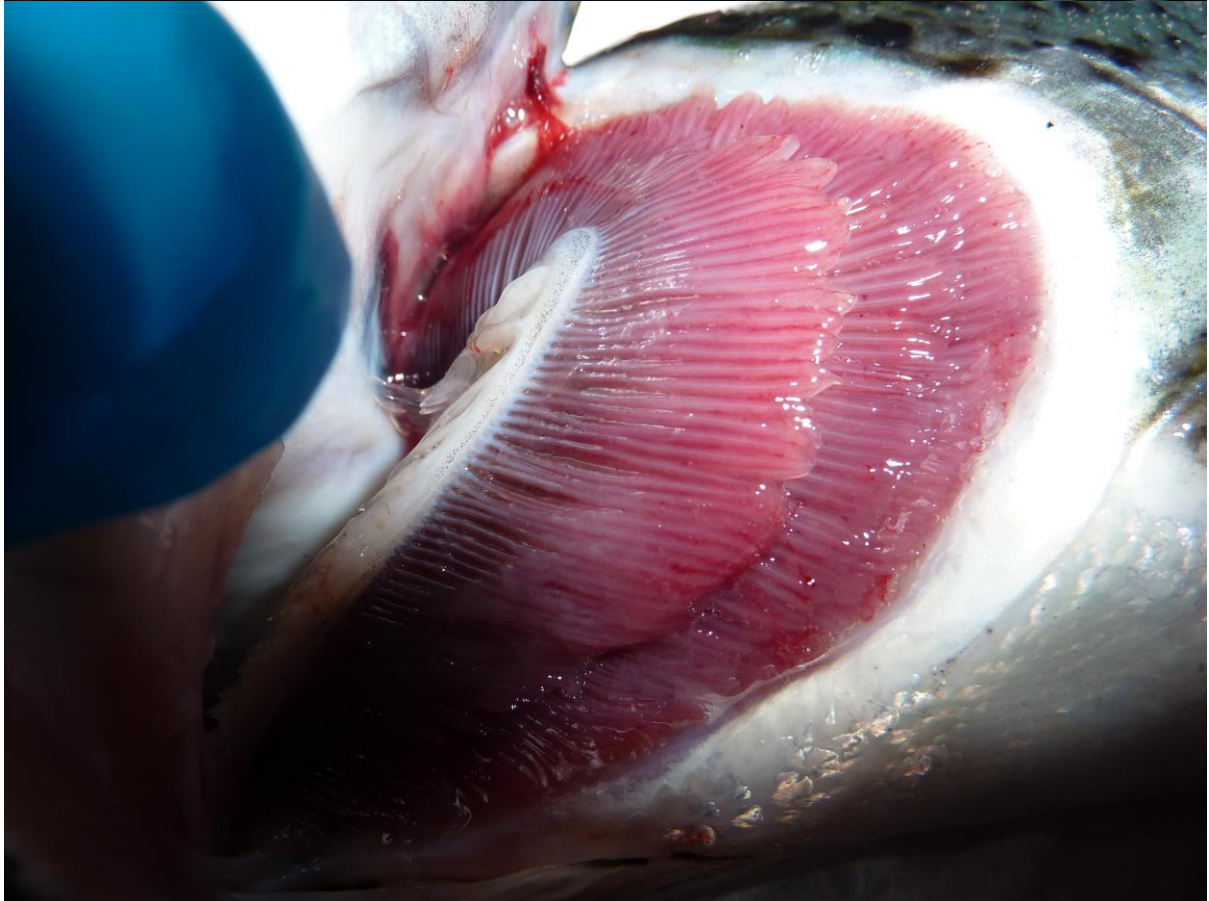


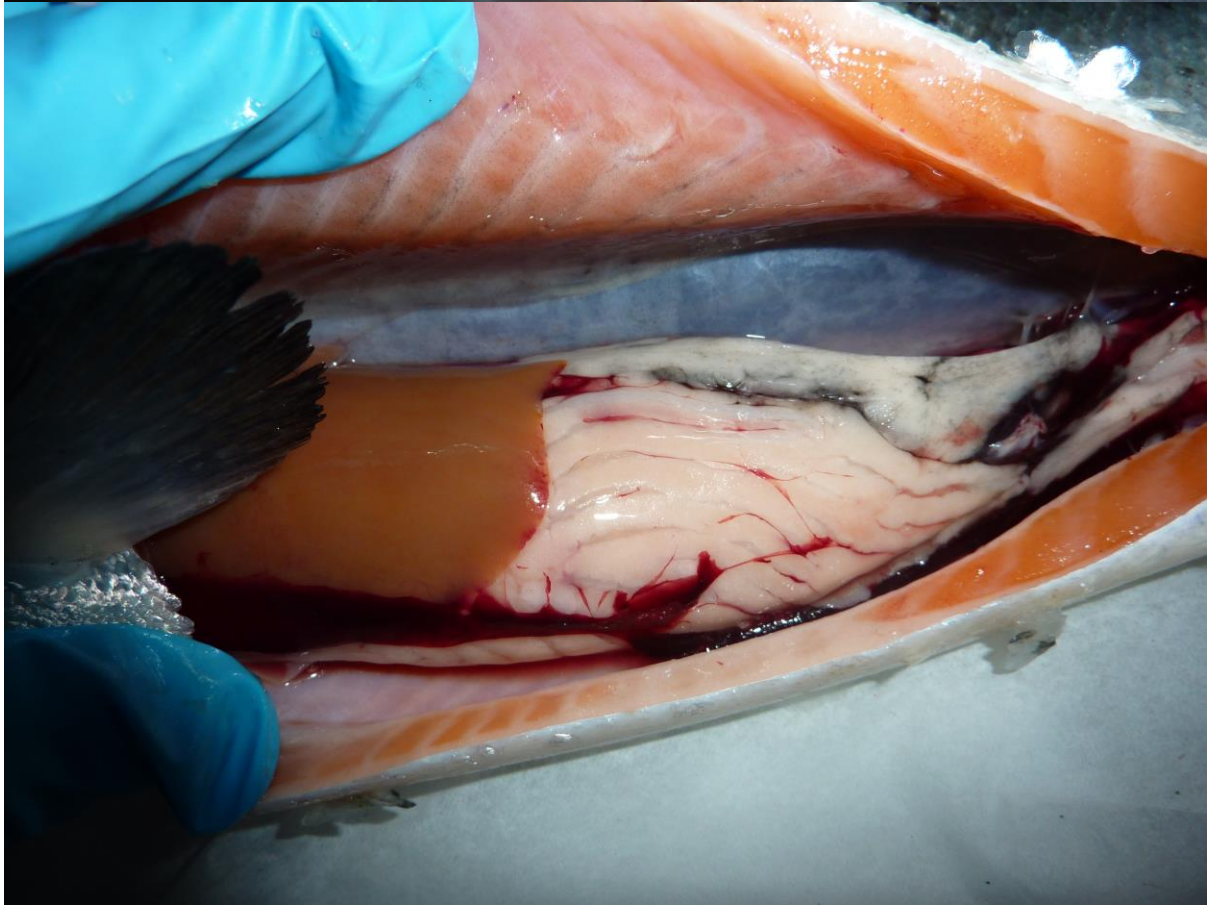
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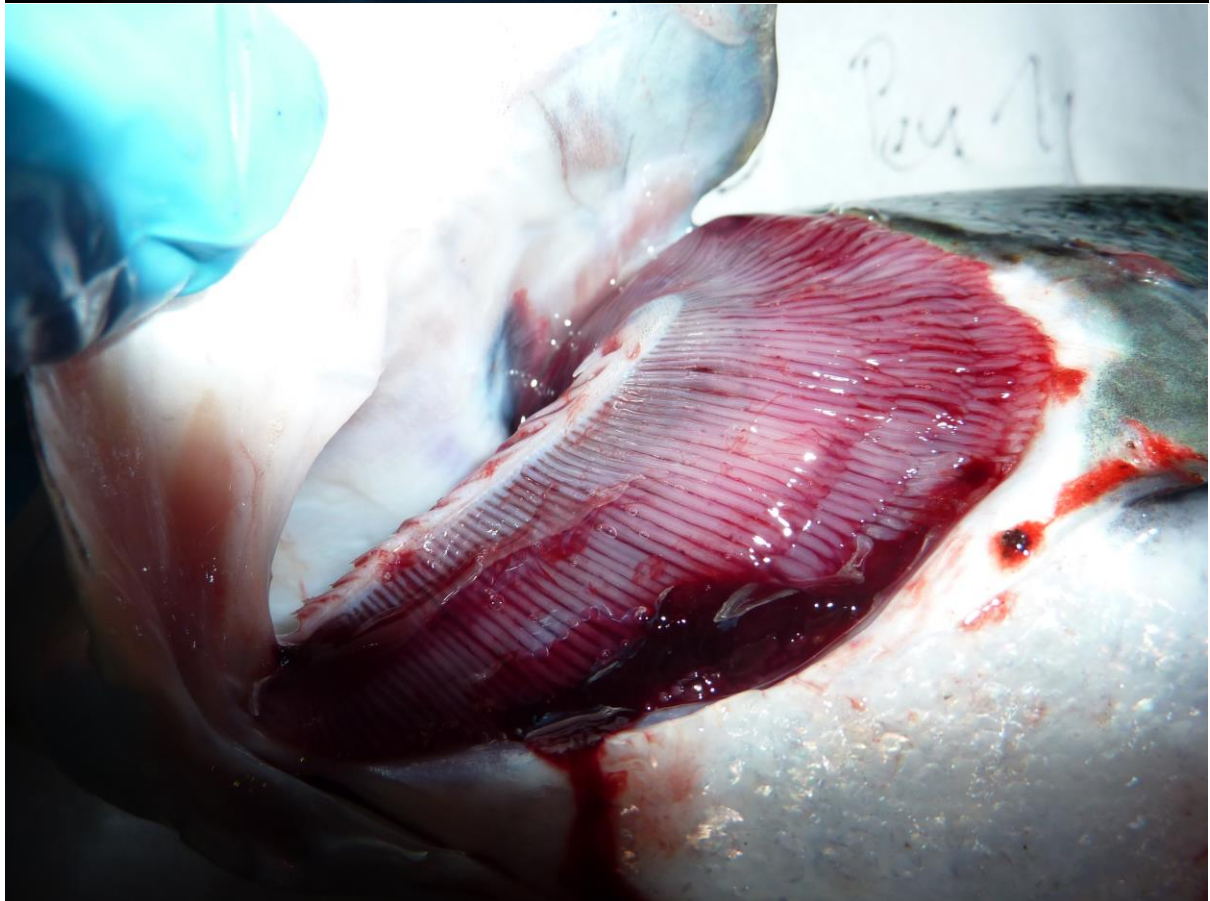


F4

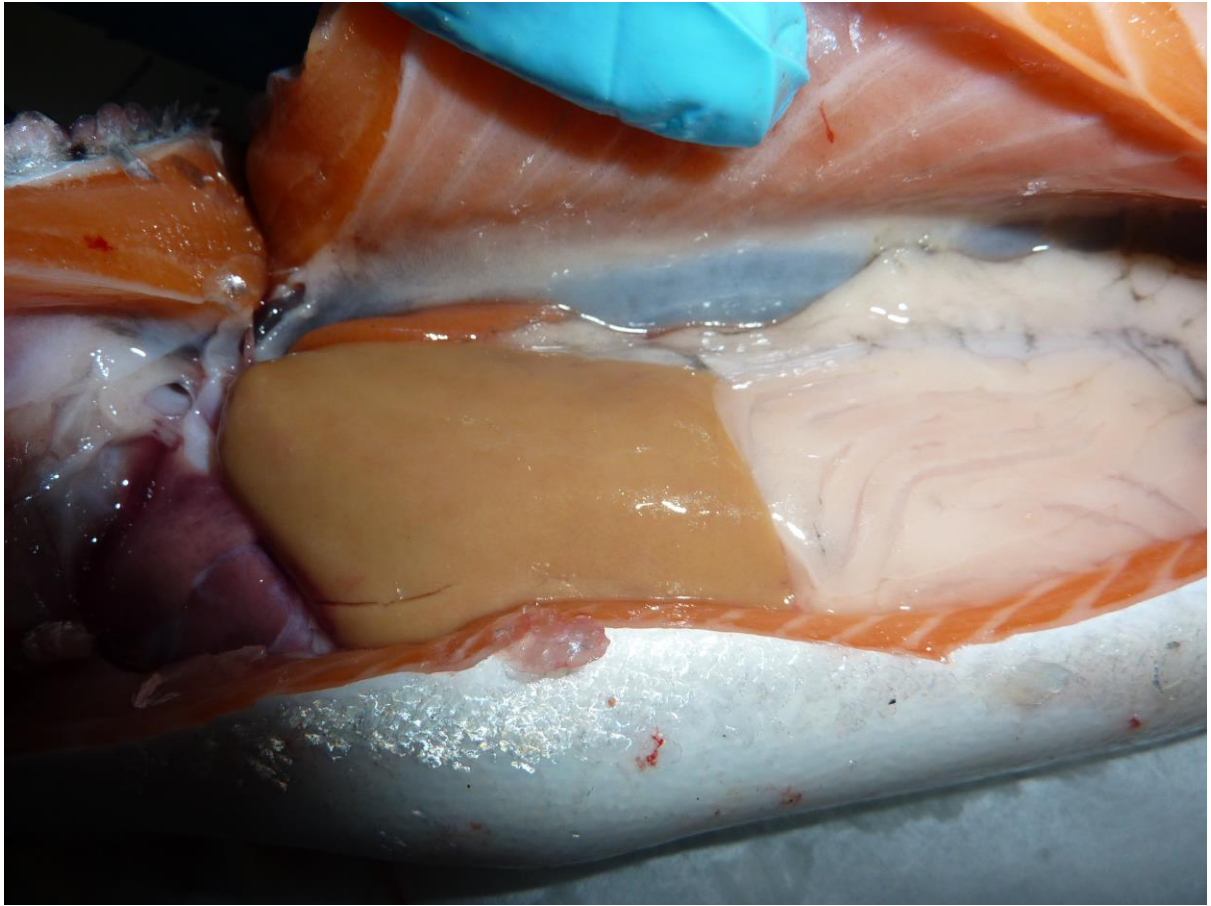




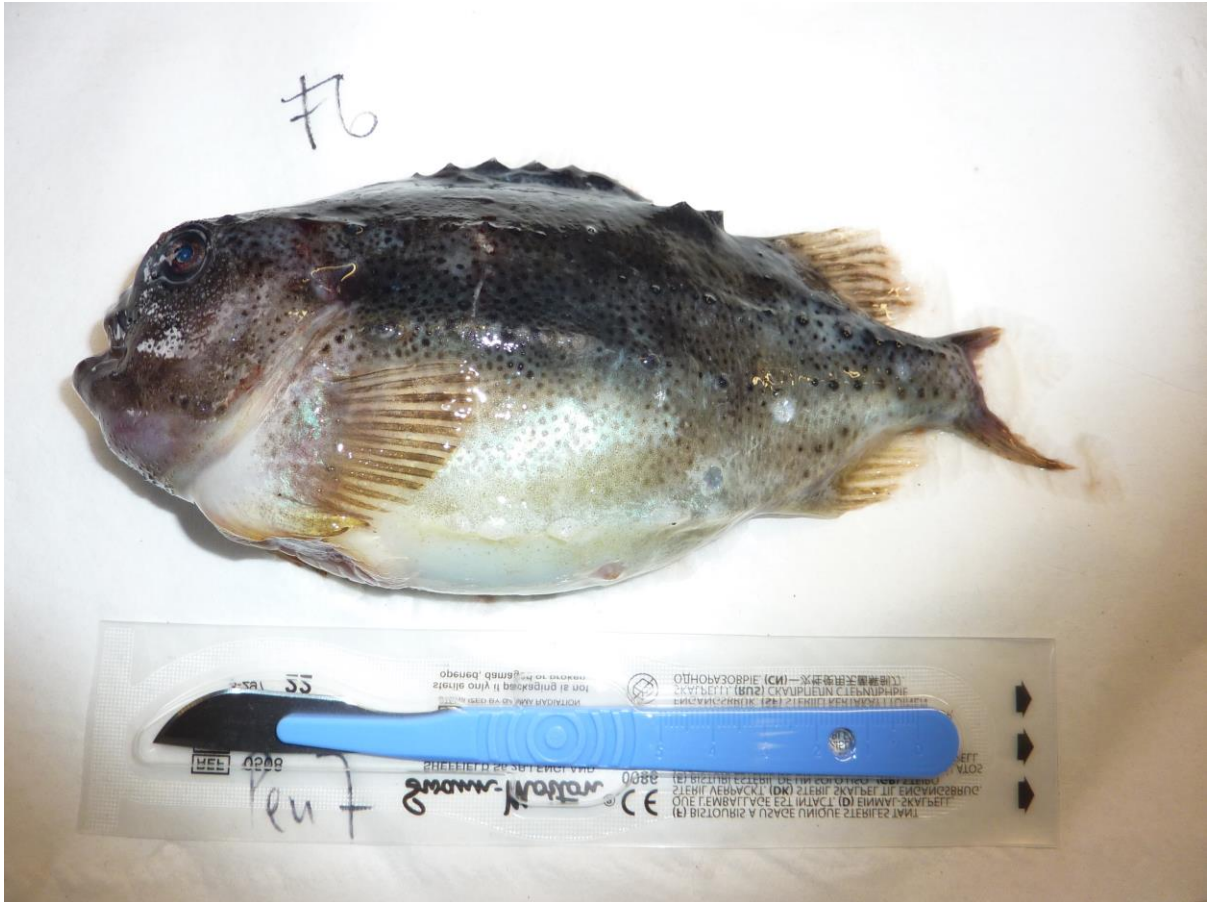
F5







F6





Case No: 2019-0584 Date of visit: 10/10/2019

Time spent on site: 30 min Main Inspector: [redacted]

Site No: SS0009 Site Name: Loup Bay  
Business No: SB0548 Business Name: Labbett Family Farms Ltd

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

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

Observations: Region: ST 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:  
[redacted]

**Additional Case Information:**

Site inspected after report of increased mortalities. Manager unable to be present at time of inspection. Water levels prevented inspection of whole site but manager had moved a bag of CGI close to the shoreline and marked it's location. On inspection a total of 126 CGI were counted with 59 (46%) of them empty. 30 CGI were collected for diagnostics. Site manager also mentioned during phone conversation that there had been no movements on or off site since the last inspection.

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	F11	F12
Fish nos												
Pool Group												
Species	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI
Average weight	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750
Sex	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Water Type	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
Stock Origin	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm
Facility No												

10/2019 Additional Sample Information:  
 Oysters taken back to and sampled at the Marine Laboratory.

30 Total Tests assigned 3

F13	F14	F15	F16	F17	F18	F19	F20	F21	F22	F23	F24	F25	F26	F27	F28
CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI	CGI
0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750	0.0750
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW	SW
South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm	South Ardnacloch Farm

Case No: 2019-0584

Date of visit: 10/10/2019

Site No: SS0009

Inspector: [Redacted]

Results Summary	Freq.	Date of Notification						
		Database	Insp	Phone	Insp	Writing	Insp	2 <sup>nd</sup> Insp
MG OHV	0/30	15/10/2019	[Redacted]	15/10/2019	[Redacted]	26/11/2019	[Redacted]	[Redacted]
BA NSIG	6/6	24/10/2019	[Redacted]	23/10/2019	[Redacted]	26/11/2019	[Redacted]	[Redacted]

Report Summary			
Case Type	Date	Insp	2 <sup>nd</sup> Insp
DIA, REP	26/11/2019	[Redacted]	[Redacted]



██████████  
Labbett Family Farms Ltd  
Woodend  
Isle of Gigha  
Argyll  
PA41 7AD  
██████████

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	SB0548	<b>DATE OF VISIT</b>	10/10/2019
<b>SITE No</b>	SS0009	<b>SITE NAME</b>	Loup Bay
<b>INSPECTOR</b>	██████████	<b>CASE No</b>	20190584

#### Section 1: Summary

After a report of increased mortalities from the site operator, the site was inspected and diagnostic samples were taken.

Histopathology examination revealed features resembling a possible bacterial septicaemia.

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

#### Section 2: Case Detail

##### Observations

The site was inspected and diagnostic samples were taken after a report of increased mortality . The tide was in so prevented inspection of the whole site but a bag of *Crassostrea gigas* had been moved so the inspector had access to them. The site manager was unable to attend inspection. On inspection a total of 126 *Crassostrea gigas* were counted with 59 (46%) of them empty. Thirty *Crassostrea gigas* were collected for diagnostic testing. The site manager also mentioned during phone conversation that there had been no movements on or off site since the last inspection.

##### Samples

Samples were collected from 30 shellfish according to the table below:

R09

Shellfish number	Species	Stage	Origin
F1 - 30	<i>Crassostrea gigas</i>	70 – 75g	South Ardnaclach Farm

## Results

**Bacteriology:** Haemolymph material from F1 – 6 were inoculated onto appropriate media for the isolation of bacteria.

No significant bacteria were isolated.

**Virology:** Tissue samples from F1 - 30 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 oyster herpesvirus (OsHV-1).

**Histology:** Tissue samples of gill, mantle and digestive gland were taken from F1 - 30. The tissue samples were fixed in Davidson's fixative.

Histopathological examination revealed the following:

Mild haemocyte agglutination in haemolymph vessels and mild focal lysis and/or infiltration of the sub-epithelial connective tissue in the mantle and moderate focal gonadal haemocytic infiltration (F8, F9 & F16).

Minor gonadal haemocytic infiltration (F25, F28).

Some haemocytic infiltration in the vesicular connective tissue surrounding the stomach (F1-F4, F9, F11, F13, F18- F19, F22 & F26 ).

One copepod-like organism within digestive gland (F12).

Signed:



Fish Health Inspector

Date: 26/11/2019

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

Case No:	<input type="text" value="2019-0600"/>	Date of visit:	<input type="text" value="15/10/2019"/>			
Time spent on site:	<input type="text" value="4 hours"/>	Main Inspector:	<input type="text" value=""/>			
Site No:	<input type="text" value="FS0476"/>	Site Name:	<input type="text" value="Quoys Hatchery"/>			
Business No:	<input type="text" value="FB0095"/>	Business Name:	<input type="text" value="Cooke Aquaculture Scotland Ltd"/>			
Case Types:	1 <input type="text" value="ECI"/>	2 <input type="text" value="CNI"/>	3 <input type="text" value="VMD"/>	4 <input type="text" value=""/>	5 <input type="text" value=""/>	6 <input type="text" value=""/>
Water Temp (°C):	<input type="text" value="8.9"/>	Thermometer No:	<input type="text" value="T148"/>	FHI 045 completed	<input type="text" value=""/>	
Observations:	Region:	SH	Water type:	F	CoGP MA	
Dead/weak/abnormally behaving fish present?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Clinical signs of disease observed?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Gross pathology observed?	<input type="text" value="N"/>	If yes, see additional information/clinical score sheet.				
Diagnostic samples taken?	<input type="text" value="N"/>					

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

**Additional Case Information:**

Consignment of eyed eggs from Ireland went to holmwrangle - from Kinnaird hatchery - before consignment was split and sent to Quoys hatchery. The health certificate held on site was the one addressed to holmwrangle. No health certificate for the split consignment sent to quoys was held. Upon returning to the lab it was also found that the operator failed to notify the FHI of the import of eggs 24 hours before the arrivals of the consignment

Site is in the initial planning stage of expanding the hatchery to include multiple large recirculation tanks on land adjacent to the current site. The idea is to eventually make Cliffs site (FS1095) obsolete.

Water was very peaty and it was difficult to observe fish inside the tanks. Fish that were observed appeared healthy.

Paperwork and inspection carried out by [REDACTED] supervised by [REDACTED]

Case No: **2019-0600** Site No: **FS0476**  
 Date of Visit: **15/10/2019** Inspector(s): **[REDACTED]**

**Registration/Authorisation Details**

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

**Site Details**

Total No facilities	<b>26</b>	Facilities stocked	<b>11</b>	No facilities inspected	<b>11</b>
Species	<b>SAL</b>				
Age group	<b>2019 S0's</b>				
No Fish	<b>299,632</b>				
Mean Fish Wt	<b>63g</b>				
Next Fallow Date (Site)	<b>9th November 2019</b>	Next Input Date (Site)	<b>End November 2019</b>		

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: **02/10/2018**
- 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? **[REDACTED]**

**Mortality Records**

- 1. Mortality records available for inspection? **Y**
- 2. How are mortalities disposed of? **Incinerated - Shetland Waste to Energy**
- If other detail: **[REDACTED]**
- 3. Mortality records complete and correctly entered? **Y**
- 4. Recent mortality (last 4 wks): **wk41(0.04%-125)wk40(0.05%-160) wk39(0.08%-254) wk38(0.05%-111)**
- 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? **Y**
- If yes, detail: **post input mortality from imported eggs. Mortality occurred within 6 weeks of stocking.**
- 7. Have increased (unexplained) mortalities been reported to vet or FHI? **Y**
- If yes, detail action: **FHI were informed of mortality.**
- 8. Have 'mortality events' been reported to FHI? If no, add MRT case and enter on mortality events sheet. **N/A**

1. Recent treatments (last 4 wks)?	<input type="checkbox"/>	Y
If yes, detail:	Halamid, TMS	
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)?	TMS	
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:

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	F1-6	F7-9										
Pool Group												
Species	SAL	SAL										
Average weight	63g	63g										
Sex	N/A	N/A										
Water Type	FW	FW										
Stock Origin	Ireland	Ireland										
Facility No	4A	3A										





Case Number:	2019-0600	Site No:	FS0476	Insp:		
Date of Visit	15/10/2019	No of movements/supp./dest.			Score	
<b>Live fish movements</b>		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	9
	Number of suppliers	0	5	10	14	5
Movements off	Frequency of movements off	0	3	6	10	3
	Number of destinations	0	3	6	10	3
<b>Exposure via water</b>	<b>Site contacts</b>	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				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		
<b>Management practices</b>		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				
	Common processes with other farms	3				
	Collection point for waste from other farms	5				5
Use of unpasteurised feeds	No feeding of unpasteurised feed	0				0
	Feeding unpasteurised feed	5				
<b>Biosecurity</b>	<b>Number of sites</b>	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		1
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
<b>CoGP/Regulator</b>						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
<b>Total Rank</b>					<b>27</b>	<b>HIGH</b>

Case No: **2019-0600**

Site No: **FS0476**

**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?
2. Are measures in place to mitigate against the predation experienced on site? (Detail below)

Bird nets  Rent o kill

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)



██████████  
Cooke Aquaculture Scotland Ltd  
Crowness Road  
Hatston  
Kirkwall, Orkney  
KW15 1RG  
████████████████████

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0095	<b>DATE OF VISIT</b>	15/10/2019
<b>SITE No</b>	FS0476	<b>SITE NAME</b>	Quoys Hatchery
<b>INSPECTOR</b>	████████████████████	<b>CASE No</b>	20190600

#### Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

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

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.

Mortality records were inspected and found to be adequately maintained.

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

R04

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

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

**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.

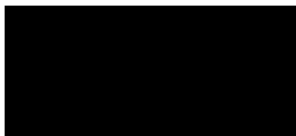
**Inspection under the Aquaculture and Fisheries (Scotland) Act 2007**

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

On this occasion the site was found to be satisfactory.

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

Signed:

A black rectangular box redacting the signature of the Fish Health Inspector.

Date: 22/10/2019

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

Case No: 2019-0634 Date of visit: 28/10/2019

Time spent on site: 4 hours Main Inspector:

Site No: FS1104 Site Name: Laddie Wood, Loch Garry
Business No: FB0119 Business Name: Mowi Scotland Ltd

Case Types: 1 UNI 2 VMD 3 4 5 6

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

Observations: Region: HI 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:

**Additional Case Information:**

Only lost 80 fish during transfer from Inverpolly and approx 1500 during vaccination at end of august.

Fish on site from Inchmore (early september) and Inverpolly (1-5 July).

Due to start moving off site mid November. East Loch Tarbert and Torridon are destination sites. Organic stock going to Leven.

Organics were due to be graded in July but temp peaked at 19.6 degrees. A slight increase in mortalities - peak of 0.01%.

Some costia seen.

No ensiled material moved off since last inspection. Culled fish moved off - records correct.

Starting to see some HSS in the non-organic stock.

Slightly higher transfer morts from Inchmore but still ~500.

Now using Cress - Bronopol. Issues with Pyceze supply. Cress is a Chilean version and has been prescribed under cascade.

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**

Total No facilities	<input type="text" value="22"/>	Facilities stocked	<input type="text" value="18"/>	No facilities inspected	<input type="text" value="18"/>
Species	<input type="text" value="SAL"/>				
Age group	<input type="text" value="SMO"/>				
No Fish	<input type="text" value="1,171,286"/>				
Mean Fish Wt	<input type="text" value="130g"/>				
Next Fallow Date (Site)	<input type="text" value="Mid December"/>	Next Input Date (Site)	<input type="text" value="July 2020"/>		

Recent (last 4 wks) disease problems?  Any escapes (since last visit)?   
 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, add MRT case and enter on mortality events sheet.



1. Recent treatments (last 4 wks)?	<input type="checkbox"/>	Y
If yes, detail:	Formalin	
If other, detail:	Cress	
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	N
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	Formalin	
If other, detail:	Cress	
6. Are medicines stored appropriately?	<input type="checkbox"/>	Y
<b>Biosecurity Records</b>		
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 increased (unexplained) 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 how and when 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:		
<b>Results of Surveillance</b>		
1. Has any animal health surveillance been carried out by, or on behalf of, the business?	<input type="checkbox"/>	
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).		
Records checked between: 08/10/2018 - 28/10/2019		

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	1-4	5-8	9-12	13-16	17-20							
Pool Group												
Species	SAL	SAL	SAL	SAL	SAL							
Average weight	0.1300	0.1300	0.1300	0.1300	0.1300							
Sex	N/A	N/A	N/A	N/A	N/A							
Water Type	FW	FW	FW	FW	FW							
Stock Details		Inchmore	Inchmore	Inchmore	Inverpolly	Inverpolly						
	Stock Origin											
Facility No	10	11	12	15	16							





[REDACTED]  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
Fort William  
PH33 6RX  
[REDACTED]

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	28/10/2019
<b>SITE No</b>	FS1104	<b>SITE NAME</b>	Laddie Wood, Loch Garry
<b>INSPECTOR</b>	[REDACTED]	<b>CASE No</b>	20190634

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

The above site was visited in accordance with the Animals and Animal Products (Examination for Residues and Maximum Residue Limits) (England and Scotland) Regulations 2015. On this occasion the inspection was unannounced to meet the requirements of European Council Regulation 882/2004.

Samples were taken to be analysed for veterinary residues.

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

Medicine records were inspected and most details were found to be adequately maintained, with the exception of the withdrawal period for one medicine.

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.

The following point was raised with the site representative during the inspection:

R20

The withdrawal period for Cress (bronopol) could not be correctly recorded in the treatment record as only the authorised product (Pyceze) was available to select. The site manager was aware of the correct withdrawal period but was unable to update the record in the system.

Records or documentation demonstrating that this point has been addressed should be sent to the Fish Health Inspectorate (contact details below) within 30 days of the date this report was issued.

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: 01/11/2019

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

R20

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB  
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - [ms.fishhealth@gov.scot](mailto:ms.fishhealth@gov.scot)  
Website - [www.gov.scot/Topics/marine/science](http://www.gov.scot/Topics/marine/science)

[REDACTED]  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
Fort William  
PH33 6RX  
[REDACTED]

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	28/10/2019
<b>SITE No</b>	FS1104	<b>SITE NAME</b>	Laddie Wood, Loch Garry
<b>INSPECTOR</b>	[REDACTED]	<b>CASE No</b>	20190634

#### Case completion report

Recommendations in relation to the above case were made for implementation by 30 November 2019. Following submission of the required documentation, evidence has now been provided to Marine Scotland 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: 19/12/2019

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

Case No:	2019-0635		Date of visit:	29/10/2019	
Time spent on site:	3.5 hours		Main Inspector:		
Site No:	FS0150	Site Name:	Loch Lochy		
Business No:	FB0119	Business Name:	Mowi Scotland Ltd		
Case Types:	1 ECI	2 CNI	3 VMD	4	5
Water Temp (°C):	10.6	Thermometer No:	T155	FHI 045 completed	N/A
Observations:	Region:	HI	Water type:	F	CoGP MA
Dead/weak/abnormally behaving fish present?	<input type="checkbox"/>	If yes, see additional information/clinical score sheet.			
Clinical signs of disease observed?	<input type="checkbox"/>	If yes, see additional information/clinical score sheet.			
Gross pathology observed?	<input type="checkbox"/>	If yes, see additional information/clinical score sheet.			
Diagnostic samples taken?	<input type="checkbox"/>				

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

--



**Additional Case Information:**

Most mortalities attributed to predation (heron and cormorants).

26883 (0.85%) total mortality in stock since input in July. Total of 3,150,000 stock originally input.

Mortality since 16 September - total 5178. 54-490/cage.

Recent morts - all cages less than 0.5%.

Cress being used due to supply issues with Pyceze. Under prescription - cascade so 500dd withdrawal. Recorded on master treatment spreadsheet as Odd.

Mortalities incinerated on site, but cull at grading disposed of via Dundas chemicals.

A few fish with fungus across site (only 2 or 3 per cage). Only one able to be caught - normal apart from fungus so no diagnostic samples taken.

Site due to fallow this week and re-stock from Lochailort next week. One cage being emptied during visit.

Accompanied on visit by [REDACTED] who carried out audit of [REDACTED]. Paperwork, inspection and sampling carried out by [REDACTED].

Updated 04/11/2019 - on return to laboratory it was noted that movements off site had been recorded to Boisdale (FS0841) which had actually moved to Marulaig Bay (FS0865). The movement record is to be updated to the correct site. The company will be reminded that the Boisdale site will require to be re-activated with Marine Scotland prior to any future stocking.

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**

Total No facilities	<input type="text" value="36"/>	Facilities stocked	<input type="text" value="3"/>	No facilities inspected	<input type="text" value="3"/>
Species	<input type="text" value="SAL"/>				
Age group	<input type="text" value="SMO"/>				
No Fish	<input type="text" value="292,050"/>				
Mean Fish Wt	<input type="text" value="125g"/>				
Next Fallow Date (Site)	<input type="text" value="31/10/19"/>	Next Input Date (Site)	<input type="text" value="November 2019"/>		

Recent (last 4 wks) disease problems?  Any escapes (since last visit)?   
 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, add MRT case and enter on mortality events sheet.

1. Recent treatments (last 4 wks)?	<input type="checkbox"/>	Y
If yes, detail:	Formalin	
If other, detail:	Cress	
2. Medicines records available for inspection?	<input type="checkbox"/>	Y
3. Are records complete and correctly entered?	<input type="checkbox"/>	N
4. Are fish in a withdrawal period?	<input type="checkbox"/>	Y
5. If yes, what treatment(s)?	Formalin	
If other, detail:	Cress	
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 increased (unexplained) 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:	01/07/19-29/10/2019
--------------------------	---------------------

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	1-6	7-11	12-16									
Pool Group												
Species	SAL	SAL	SAL									
Average weight	0.1250	0.1250	0.1250									
Sex	N/A	N/A	N/A									
Water Type	FW	FW	FW									
Stock Details		Lochailort	Lochailort	Lochailort								
	Stock Origin											
Facility No	9	10	12									



Case Number:	2019-0635	Site No:	FS0150	Insp:		
Date of Visit	29/10/2019	No of movements/supp./dest.			Score	
<b>Live fish movements</b>		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
<b>Exposure via water</b>	<b>Site contacts</b>	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		2
	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		
<b>Management practices</b>		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				
<b>Biosecurity</b>	<b>Number of sites</b>	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		1
Disinfection of equipment between sites, use of footbaths etc	Yes	0				0
	No	1				
<b>CoGP/Regulator</b>						
Practices in accordance with regulator or industry code of practice	Yes	0				0
	No	3				
Platform access to cages	Yes	0				0
	No	2				
<b>Total Rank</b>					<b>16</b>	<b>MEDIUM</b>

Case No: **2019-0635**

Site No: **FS0150**

**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

If other, detail below:

Dyneema nets, top nets (bird nets). Electric fence.

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





██████████  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
Fort William  
PH33 6RX  
██████████

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	29/10/2019
<b>SITE No</b>	FS0150	<b>SITE NAME</b>	Loch Lochy
<b>INSPECTOR</b>	██████████	<b>CASE No</b>	20190635

#### Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

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

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. However, on return to the laboratory it was noticed that recent movements off site had been recorded to the wrong site. Movements had been recorded to Boisdale (FS0841) but it is understood that the fish actually moved to Marulaig Bay (FS0865).

Mortality records were inspected and found to be adequately maintained.

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

R04

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

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

No issues were raised in relation to the above records at the time of the visit. However, the following point should be addressed:

The movements recorded to Boisdale (FS0841) should be updated to ensure records are accurate.

Records or documentation demonstrating that this point has been addressed should be sent to the Fish Health Inspectorate (contact details below) within 30 days of the date this report was issued.

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

Medicine records were inspected and most details were found to be adequately maintained, with the exception of the withdrawal period for one medicine.

The following point was raised with the site representative during the inspection:

The withdrawal period for Cress (bronopol) could not be correctly recorded in the treatment record as only the authorised product (Pyceze) was available to select. The site manager was aware of the correct withdrawal period but was unable to update the record in the system.

Records or documentation demonstrating that this point has been addressed should be sent to the Fish Health Inspectorate (contact details below) within 30 days of the date this report was issued.

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 with respect to section 5 regarding containment and escapes.

On this occasion the site was found to be satisfactory.

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: 04/11/2019

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)

R04

Marine Laboratory, 375 Victoria Road, Aberdeen, AB11 9DB  
Tel - 0131 244 3498 Fax - 0131 244 0944 Email - [ms.fishhealth@gov.scot](mailto:ms.fishhealth@gov.scot)  
Website - [www.gov.scot/Topics/marine/science](http://www.gov.scot/Topics/marine/science)

[REDACTED]  
Mowi Scotland Ltd  
Stob Ban House  
Glen Nevis Business Park  
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PH33 6RX  
[REDACTED]

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

<b>BUSINESS No</b>	FB0119	<b>DATE OF VISIT</b>	29/10/2019
<b>SITE No</b>	FS0150	<b>SITE NAME</b>	Loch Lochy
<b>INSPECTOR</b>	[REDACTED]	<b>CASE No</b>	20190635

#### Case completion report

Recommendations in relation to the above case were made for implementation by 4 December 2019. Following submission of the required documentation, evidence has now been provided to Marine Scotland 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: 19/12/2019

Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Marine Scotland website at [www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter](http://www.gov.scot/Topics/marine/Fish-Shellfish/FHI/charter)