

Case No:

2025-0042

Date of visit:

24/07/2002

Additional inspector(s):

Main Inspector:

Site No:

FS0839

Site Name:

Geasgill

Business No:

FB0169

Business Name:

Bakkafrost Scotland

Case Types:

1 REP

2 DIA

3

4

5

6

Water Temp (°C):

15.53

Thermometer No:

T304

FHI 045 completed

N/A

Observations:

Region: ST

Water type: S

CoGP MA: M-37

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.

Post mortem signs observed?

 If yes, see additional information/clinical score sheet.

Diagnostic samples taken?

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

Additional Case Information:

Site inspected following reports of increased mortality week beginning 07/07. Mortalities on site had been attributed to PD. During the inspection 15-20 lethargic fish observed across sites with 6 moribund fish observed within pen 4. The moribund fish were near the centre of the pen beside the top net support and were unable to be caught.

9 fish removed and examined at the shorebase, the 5 fish displaying the most significant internal signs were sampled.

Salmon on site are from two different FW sources, with the majority of mortalities occurring in one stock. A FW/SFLS treatment was conducted between 01/07 and 04/07 to cover all pens.

During routine water samples, micro jellyfish were observed and the site automatically implemented procedures to reduce the impact on stock. Numbers of micro jellyfish have reported to have dropped, but the site is still operating to procedures to address this.

A peak in mortality occurred the W/B 07/07/25 where mortalities of 66,371 (11.19%) were reported, mortalities reduced week beginning 14/07/25 to 39,114 (7.43%). The worst affected pens were Pen 4, which lost 17,827 (56%) of it's stock W/B 07/07 and W/B 14/07/25 lost a further 6,200 (45%) of the stock.

During the same period Pen 11 lost 12,362 (33%) W/B 07/07/25 and a further 7,432 (30%) W/B 14/07. At time of inspection the report mortalities for site W/B 21/07/25 (between 21/07/25 and 23/07/25) were 4,230 (0.86%) .

The site had received QPCR results the day prior to the site inspection, these identified *pasturella skyensis*, although no observations reported in fish sampled of signs consistent with *pasturella skyensis*. The site also received positive CMS results from gill swabs, but no result reported from heart sample.

Case No: 2025-0042

Site No: FS0839

Date of Visit: 24/07/2002

Main Insp: [REDACTED]

Registration/Authorisation Details

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

2. Changes made to details?

Site Details (include cleaner fish for all sections)

Total No facilities	14	Facilities stocked	14	No facilities inspected	14
Species	Atlantic salmon				
Age group	2024 Q3				
No Fish	483,333				
Mean Fish Wt	2.248kg				
Next Fallow Date (Site)	2026 Q1	Next Input Date (Site)	2026 Q3	Any escapes (since last visit)?	N
If yes, detail:	PD, PGD				

Movement Records

1. Movement records for **all species** held available for inspection?

2. Date of last inspection: 26/02/2025

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. Have all introductions and imports (since last inspection) from outwith the GB health zone been recorded in the movement records?

Transport Records

1. Are any movements carried out not using a STB (by (or on behalf of) the business)?

If yes, is there a system in place for maintenance of transportation records?

Mortality Records

1. Mortality records for **all species** held available for inspection?

2. How are mortalities disposed of? Biogas - Barkip

If other detail:

3. Mortality records complete and correctly entered?

4. Recent mortality (last 4 wks): W/B 14/07 - 39,114 (7.4%), W/B 07/07 - 66,371 (11.19%), W/B 30/06 - 11,224 (1.86%), W/B 23/06 - 8,582 (1.40%)

5. Evidence of recent increased/atypical mortalities?

If yes, facility nos/no mortality per facility/no stock per facility/reason: W/B 07/07 - Pen 4 17,827 (56%) and P11 (33%), w/b 14/07 - Pen 4 6,200 (45%), Pen 11 7,472 (30%), P10 9,136 (23%) - all attributed to PD.

6. Any other peaks in mortality during period checked? N

If yes, detail:

7. Have increased (unexplained) mortalities been reported to vet or FHI? N/A

If yes, detail action:

8. Have 'mortality events' been reported to FHI? If no, enter details on mortality events sheet. Y

Treatments and Medicines Records

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

Biosecurity Records

1. Biosecurity records available for inspection?						
2. Has the manner and frequency of mortality removal, recording and safe disposal been considered?						
3. Has the manner and period in which the APB will notify Scottish Ministers or veterinary professional of any <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 and 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?							Y
2. If yes, are results available for inspection?							Y
3. Any significant results?							Y
If yes, detail (if not detailed under recent disease problems).	PD, PGD and Jellyfish						

Records checked between: 26/02/25 to 23/07/25

Case no:	2025-0042	Site No:	FS0839	Date of visit/ Sampling:	24/07/2002	24/07/2002		
Priority samples:	VI	BA	PA	MG	HI			
Time sampling starts/ends:	13:00:00	14:10:00		Main Insp:		VMD No.		
Environmental conditions:	1 Indoors	2	3	4	5			
Summary samples	HIST	Y	BA	Y	MG	VI	PA	Total Samples

Add Fish/Pools - click button

Pool/Fish No	F1	F2	F3	F4	F5						
Fish nos	1	2	3	4	5						
Pool Group											
Species	SAL	SAL	SAL	SAL	SAL						
Average weight	2.2000	2.2000	2.2000	2.2000	2.2000						
Sex											
Water Type	SW	SW	SW	SW	SW						
Stock Details	Applecross Smolt Unit (FS0500)	Applecross Smolt Unit (FS0500)	Loch Damph (FS0375)	Applecross Smolt Unit (FS0500)	Applecross Smolt Unit (FS0500)						
Stock Origin	3	10	8	5	5						
Facility No											

07/2025 Additional Sample Information:

5

Total Tests assigned

2

Case no: 2025-0042

Site No: FS0839

Method of killing: Anaesthetic

Date of visit: 24/07/2002

Main Insp:

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)				15	30			
External Signs								
Behaviour	Moribund	W	W		W	W		
	Lethargic			W				
	Hanging vertical				W			
	Spiralling				W	W		
	Flashing							
	Loss of equilibrium							
Body	Dark							
	Distended abdomen							
	Anorexic							
	Scale Oedema							
Opercula	Shortened							
	Flared							
Haemorrhaging	Throat							
	Ventrum							
	Base of fins							
	Elsewhere							
Eyes	Exophthalmic		W					
	Enophthalmic (sunken)							
	Cataract							
	Haemorrhagic		W					
Gills	Pale	W	M	W	M	M		
	Zoned				W			
	Necrotic				W			
Lesions	Flank							
	Elsewhere							
Vent	Inflamed							
	Trailing faeces							
Lice Load	Estimate numbers							
Internal Signs								
Ascites	Clear							
	Bloody		M	W		M		
Oedema	In tissues							
Heart	Pale/anaemic							
	Granulomas							
	Deformed							
Liver	Petechial haem							
	Gross haem	W			W	W		
	Tissue breakdown							
	Enlarged							
	Colour number(s)	2	3	3	2	6		
	Granulomas							
	Lesions							
Pyloric caeca	Petechial haem							
	Tubules mauve							
	Lack of fat							
Spleen	Enlarged	W	W	W	S	W		
	Granulomas							
Gut	No food present							
	Yellow pseudo-faeces							
	External haem							
	Internal haem							
Body wall	Haemorrhaging				W			
Swim bladder	Haemorrhaging	W		W				
	Fluid filled				S			
Kidney	Swollen							
	Grey							
	Granular							
	Liquefied							
General	Parasites present							
	Anaemia							

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

Fish Number									
Time sampled after death (if > 45 minutes)									
External Signs									
Behaviour	Moribund								
	Lethargic								
	Hanging vertical								
	Spiralling								
	Flashing								
	Loss of equilibrium								
Body	Dark								
	Distended abdomen								
	Anorexic								
	Scale Oedema								
Opercula	Shortened								
	Flared								
Haemorrhaging	Throat								
	Ventrum								
	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:

Case No: 2025-0042

Date of visit: 24/07/2002

Site No: **FS0839**

Main Insp: [REDACTED]

Fish Health Inspectorate visit report

Summary for information of site operator

Business no:	FB0169	Date of visit:	24/07/2025
Site no:	FS0839	Site name:	Geasgill
Case no:	20250042	Inspector:	[REDACTED]

Section one: summary

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

Histopathological examination revealed lesions that may be associated with chronic pancreatic disease in one fish. Concurrent viral cardiac conditions may also be present. Samples tested by qPCR were positive for piscine myocarditis virus. Additionally, chronic inflammation was observed, potentially linked to bacterial infection; however, no overt bacteria were observed in the Gram stain.

A complex gill issue was noted, with evidence of plankton-like structures observed in one fish. Gill samples tested by qPCR were positive for *Paranucleospora theridion*, *Neoparamoeba perurans* and salmon gill pox virus.

Vibrio sp. was identified on plates taken from kidney material of F1 and F4. Although the level of growth is low, the purity would suggest this bacterium may be a risk to the health of these fish.

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 two: case detail

Observations

The site was inspected following reports of mortality above the reporting threshold. During the site inspection 15-20 lethargic fish were observed across the site, with six moribund fish were observed near the centre of pen 4 and were unable to be caught for sampling. Nine fish were removed across site and the five fish displaying the most significant internal signs were selected for diagnostic sampling.

R09

Mortality reports above the reporting threshold began on week 21 where the mortality level was 22,752 (3.38%) fish, peaking during week 28 when mortality levels reached 66,371 (11.19%). Mortalities were reported to be decreasing and for the week of inspection, week 30, reported mortalities were 6,114 (1.25%) for the site.

F1 and F2 were moribund, F3 was lethargic, F4 was moribund, hanging vertically and spiralling. F5 was moribund and spiralling. F2 displayed bilateral exophthalmia and haemorrhaging to both eyes. All fish displayed pale gills with the gills of F4 also zoned and necrotic.

Internally F1, F2 and F5 had bloody ascites. F1 to F4 had pale livers, whilst F1, F4 and F5 had gross haemorrhaging to the liver. All fish had enlarged spleens with F5 displayed haemorrhaging to the body wall and F2 and F4 had haemorrhaging to the swim bladder. The swim bladder of F5 was fluid filled.

Samples

Samples were collected from 5 fish according to the table below:

Fish number	Facility number	Species	Stage	Origin
F1	3	Atlantic salmon	2024; Q3 2.2 kg	Applecross Smolt Unit (FS0500)
F2	10	Atlantic salmon	2024; Q3 2.2 kg	Applecross Smolt Unit (FS0500)
F3	8	Atlantic salmon	2024; Q3 2.2 kg	Loch Damph (FS0375)
F4	5	Atlantic salmon	2024; Q3 2.2 kg	Applecross Smolt Unit (FS0500)
F5	5	Atlantic salmon	2024; Q3 2.2 kg	Applecross Smolt Unit (FS0500)

Results

Bacteriology:

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

The following bacteria were isolated from fish one and four.

- *Vibrio* sp. (kidney F1 and F4)

R09

Two further *Vibrio* spp. were identified on plates taken from gill material of 5/5 fish. The level and purity of growth would not suggest they would be implicated in morbidity and they are likely to be of environmental origin.

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	19.79	26.55	26.60	26.56	POSITIVE
F2	20.21	25.94	25.84	25.95	POSITIVE
F3	21.18	29.49	29.46	29.34	POSITIVE
F4	19.96	29.07	29.06	29.00	POSITIVE
F5	-	-	-	-	Negative

Piscine myocarditis virus (PMCV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	15.71	35.75	35.87	36.11	POSITIVE
F3	15.84	21.13	21.26	21.39	POSITIVE
F4	15.57	36.01	35.81	38.51	POSITIVE
F5	-	-	-	-	Negative

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).

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Neoparamoeba perurans (AGD)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.79	29.99	30.13	30.09	POSITIVE
F2	20.21	33.73	34.41	33.94	POSITIVE
F3	21.18	29.54	29.50	29.51	POSITIVE
F4	19.96	29.56	29.62	29.62	POSITIVE
F5	21.10	33.26	32.77	32.95	POSITIVE

Paranucleospora theridion

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.79	26.73	26.95	26.98	POSITIVE
F2	20.21	33.16	33.80	33.36	POSITIVE
F3	21.18	32.49	32.76	32.46	POSITIVE
F4	19.96	31.88	30.17	31.55	POSITIVE
F5	21.10	31.74	32.06	32.10	POSITIVE

Histology:

Tissue samples of gill, skin and skeletal muscle, heart, pyloric caeca, pancreas, hind gut, liver, spleen, and kidney were taken from F1 to F5. The tissue samples were fixed in 10% neutral buffered formalin. An eye of F4 was sampled in Davidson's solution.

Histopathological examination revealed the following:

Gill: Filament hyperplasia, mild (F1, F2, F3), mainly at the gill tips (F1). Vascular damage in lamellae (F2, F3). Branchitis, necrotic, hyperplastic, mild, multifocal (F3, F4), with bacteria (F3), in F5 some lesions exhibit morphological features resembling amoebic gill disease (AGD). Some bacteria observed in the cell debris (F1). Epitheliocysts, low number (F2). Plankton-like structure observed among gill filaments (F4).

Skin & Muscle: Myositis and necrosis, mild, multifocal, observed in both musculatures (F1, F3, F5).

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Heart: Myocarditis, minimal, multifocal (F1, F2, F3, F5), with musculature necrosis, mild, and multinucleated giant cell in F2, endocarditis, minimal, multifocal (F3, F5). Degeneration of compact layer, mild, multifocal, (F5). Epicarditis, mild (F1, F2, F4).

Gut and pyloric caeca: Peritonitis, mild (F1, F2, F3, F5). Cell sloughing potentially associated with post-mortem artefact (F1).

Pancreas: Absence of acinar tissue (F3).

Liver: Some degree of vasculitis is present in the major blood vessels. (F1, F4). Hepatocellular vacuolation (macrovesicles), some, diffuse (F3, F4).

Kidney: Interstitial nephritis, necrotic (F1, F4). Interstitial nephritis, granulomatous, multifocal, moderate, with multifocal giant multinucleated cells, chronic (F2), some displayed centrally splendore-hoepli reaction (homogeneous eosinophilic material) (F2), F3 is similar to F2, but to a lesser extent.

Spleen: Splenitis, granulomatous, multifocal, moderate, with multifocal giant multinucleated cells, chronic, some displayed centrally splendore-hoepli reaction (homogeneous eosinophilic material (F2, F3). Capsulitis, mild (F1),

Eye: Inflammation observed, with rod-shaped Gram-negative bacteria present (F4).

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

Signed:

Date: 09/12/25

Fish Health Inspector

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

R09



F1 – top left, F2 – middle left, F3 – bottom left, F4 - top right, F5 – bottom right



F1 – Gill



F2 – Gill



F3 – Gill



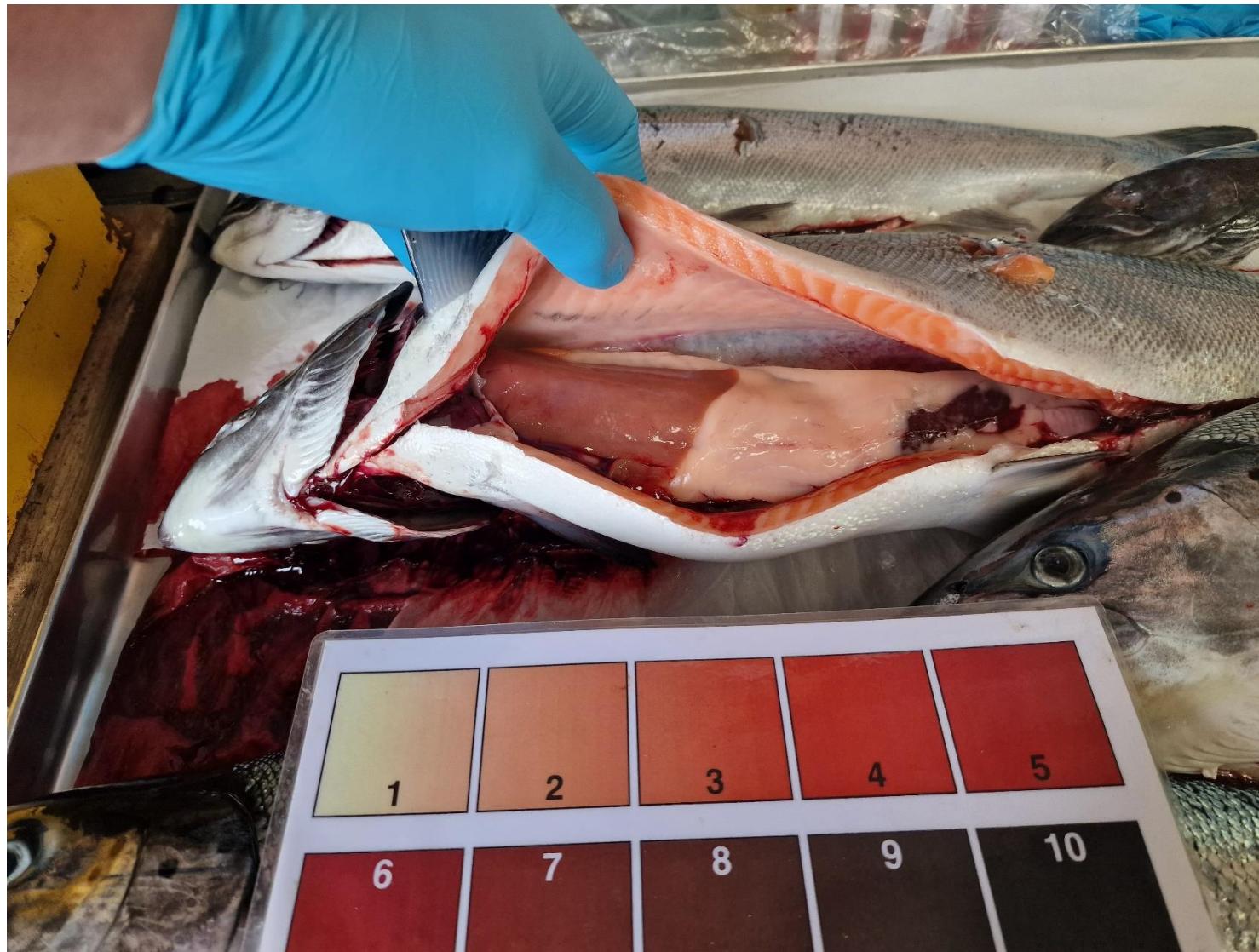
F4 – Gill



F5 – Gill



F1 – Internal



F2 – Internal



F3 – Internal



F4 – Internal



F5 – Internal



F5 – Internal, Fluid filled swim bladder