FHI 059, Version 14	Issued by	r: FHI	Date of issue: 04/04/2025
Case No: 2025-0272			Date of visit: 17/07/2025
Additional inspector(s):		Main Inspecto	r:
		nary ottish Sea Farms Ltd	
Case Types: 1 STI 2 D	IA 3 4	5	6
Water Temp (°C): 14.1	hermometer No:	T172	FHI 045 completed N
Observations: R	egion: HI	Water type: S	CoGP MA: M-35
Dead/weak/abnormally behaving fish Clinical signs of disease observed? Post mortem signs observed? Diagnostic samples taken?	r present? Y Y Y Y	If yes, see additional inform If yes, see additional inform If yes, see additional inform	mation/clinical score sheet.
UNI/REG only - if unable to carry out	t intended visit detail reason b	pelow:	

Additional Case Information:

Inspection undertaken following confirmation of clinical BKD at a site within one tidal excursion, Fishnish (A) (FS0427)

Wild wrasse on site at the time of inspection

Winter sores (Moritella viscosa) detected after input together with Vibrio sp. Mortality did not exceed notifiable criteria although there was a small increase in mortality in wk 16. Report from vet observed. Fish fed with Biomar "Assist skin" to reduce affects, this was reportedly successful.

Most recent histo report from inspection on 30/06/2025. Only pathology was mild heart (mostly mild epicarditis) and gill pathology (mostly mild lamellar branchitis), possibly indicative of a mild viral infection, reportedly. No signs consistent with BKD noted.

Ten moribund fish observed within the cages were removed. Five were taken for diagnostic sampling

Freshwater treatment used from 08/07/25 to 11/07/25 to treat gill issues as gill scores rose slightly

FHI 059, Versio	n 14			Issued by:	FHI		Date o	f issue: 04/04/2025
Case No:	2025-0272]	Site No:	FS069	96			
Date of Visit:		17/07/202	3		Main Insp:			
Registration/A	uthorisation	n Details						
1. Business/site			d by site repre	esentative?			Υ	
2. Changes ma		<u> </u>					N	
Site Details (in	ıclude clean	er fish for al	l sections)					
Total No facilitie		8	Facilities sto	cked	7	No facilities	inspected	8
	Atlantic	WRS					T i	
Species	salmon							
Age group	S1 25	Mixed						
	571,437	14,766						
Mean Fish Wt	926g	Mixed						
Next Fallow Da	te (Site)	Q3 2026		Next Input	Date (Site)	Q1 2027		
Recent (last 4 v	wks) disease	problems?			N Any escap	es (since last vi	sit)?	N
If yes, detail:								
Movement Rec	cords							
1. Movement re		species held	l available for	inspection?				Y
2. Date of last i							20/05/2024	
3. Are records	•	d correctly en	tered?					Y
4. Are moveme	•			aste?				N/A
5. Are records								N/A
		-		tion) from o	ıtwith the GB	health zone bee	en recorded	N/A
the movement		p = (=		,				
Transport Boo	ordo							
Transport Rec 1. Are any mov		ad aut nat usi	ng a CTD /by	(or on bobo	If of) the busin	naaa\?		
If yes, is there a			• • •	•	,	11622) !		
11 yes, 15 there t	a system in p		teriarioe or tra	moportation	1000143:			
Mortality Reco								
Mortality reco			vailable for in	spection?				Y
2. How are mor	talities dispo	sed of?			Incinerated	d - on site		
If other detail:								
3. Mortality reco	ords complet	e and correct	ř – – – – – – – – – – – – – – – – – – –					Y
						621 fish (0.11%		
1 December	ality (last 4 y	dea).				9: 160 fish (1.429		22 fish
4. Recent morta	• •	•		27: 146 fish	i (1.4%), wk 2	26: 337 fish (1.84	1%).	N
5. Evidence of		• •		:::4/				IN
If yes, facility no	os/no mortali	ty per lacility/	no stock per i	aciiity/reaso	n:			
6. Any other pe	aks in morta	lity during per	iod checked?					Y
· ·		, ,			aked at 1.81%	6 in wk 33 due to	o this. Morta	lity above
		•	_			gen. Exceeded o		•
If yes, detail:	week due to							
7. Have increas			es been repoi	rted to vet o	r FHI?			N/A
If yes, detail ac								
8. Have 'mortal	ity events' be	een reported t	o FHI? If no, e	enter details	on mortality	events sheet.		Y

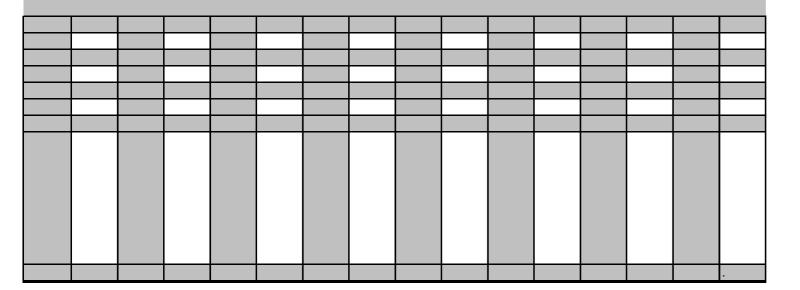
Treatments and Medicines Reco	ords					
1. Recent treatments (see comme	nt)?					Y
If yes, detail: T.M.:	S.					
If other, detail:						
2. Medicines records available for	inspection?					Y
3. Are records complete and corre	ctly entered?					Y
4. Are fish in a withdrawal period?						Y
5. If yes, what treatment(s)?		T.M.S.				
If other, detail:						
6. Are medicines stored appropria	tely?					Y
					'	
Biosecurity Records						
1. Biosecurity records available for	r inspection?					
2. Has the manner and frequency	•	al, recording an	d safe disposa	l been consid	ered?	
3. Has the manner and period in w						
increased (unexplained) mortality		•		, ,		
4. Has the action that will be taken	in the event that the	he presence or	suspicion of th	e presence of	f a listed	
disease is detected been included		•	•	•		
5. Has the health status of aquacu	ulture animals being	g stocked on the	e farm site bee	n covered (ed	qual or higher	
health status, certification if require	ed)?			·		
6. Have the husbandry and biosec	curity measures imp	olemented betw	een each epid	emiological ui	nit to	
minimise transmission of disease						
etc.)?	,				'	
7. Is documentation available rega	arding the measure	s in place to ma	aintain the phys	sical containm	nent of	
aquaculture animals held on site?		·	. ,			
8. Have the biosecurity procedures	s been adequately	implemented o	n site?			
If no, detail:						
Results of Surveillance						
1. Has any animal health surveilla	nce been carried o	ut by, or on beh	alf of, the busi	ness?		Y
2. If yes, are results available for in	nspection?					Y
3. Any significant results?						Y
If yes, detail (if not detailed under	recent disease pro	blems).	CMS - see al	oove		
Records checked be	etween:	20/05/2024	- 17/07/2025			

Add Fish/Pools - click button Pool/Fish No F1 F2 F3 F4 F5 Image: F5 in the color of the colo	ГГ	11 059, Version 14						18	ssued b	у. ГПІ				
Priority samples: VI BA PA MG HI Time sampling starts/ends: 14:00:00 15:00:00 Main Insp: VMD No. Environmental conditions: 1 Windy 2 Wet 3 4 5 Summary samples HIST Y BA Y MG Y VI PA Total Sa Add Fish/Pools - click button F1 F2 F3 F4 F5 F5 F6 F7		Case no:	2025-02	272	Site No		FS0696	;				17/0)7/2025	17/0
starts/ends: Environmental conditions: 1 Windy 2 Wet 3 4 5 Summary samples HIST Y BA Y MG Y VI PA Total Sa Add Fish/Pools - click button F1 F2 F3 F4 F5 F5 F5 F5 F7		Priority samples:	VI		ВА		PA		_	Sampiin	_			
Add Fish/Pools - click button F1 F2 F3 F4 F5 Fish nos 1 2 3 4 5 Pool Group		. •	14:0	00:00	15:0	00:00	J	Main Ins	sp:			VMD No). [0
Pool/Fish No		Environmental conditions:	1	Windy	2	Wet	3		4		5			
Pool/Fish No F1 F2 F3 F4 F5 Fish nos 1 2 3 4 5 Pool Group		Summary samples	HIST	Υ	ВА	Υ	MG	Y	VI		PA		Total Sa	mples
Pool/Fish No F1 F2 F3 F4 F5 Fish nos 1 2 3 4 5 Pool Group														
Fish nos 1 2 3 4 5 Pool Group Species SAL SAL SAL SAL SAL Species SAL S	A	dd Fish/Pools - click button												
Fish nos 1 2 3 4 5 Pool Group SAL SAL SAL SAL SAL Species SAL SAL SAL SAL SAL Average weight 900g 900g 800g 800g 800g Sex Water Type SW SW SW SW SW		Pool/Fish No	F1	F2	F3	F4	F5							
Species SAL SAL SAL SAL SAL Average weight 900g 900g 800g 400g 800g Sex Water Type SW SW SW SW		Fish nos	1			4	5							
Average weight 900g 900g 800g 400g 800g Sex Water Type SW SW SW SW		Pool Group												
Sex Water Type SW SW SW SW SW		Species	SAL	SAL	SAL	SAL	SAL							
Water Type SW SW SW SW		Average weight	900g	900g	800g	400g	800g							
		Sex												
Details addine (FS1325) addine (FS1325) addine (FS1325) addine (FS1325)		Water Type	SW	SW	SW	SW	SW							
Stock Origin			Barcaldine (FS1325)	Barcaldine (FS1325)	Barcaldine	Barcaldine	Barcaldine (FS1325)							

07/2025 Additional Sample Information:

Extra histo sample for the lesion on F5. Some bacteriology plates split it two due to lack of plates. F1 and F5 exhibited pale gills so extra samples submitted for gill analysis.

5 Total Tests assigned 5



FHI 059, Versio	II 14 	issued by:		ueu by.	гпі		_		Dai	e or issu	Je. 04/0
Case no:	2025-0272		Site No	o:	FS069	6	М	ethod o	f killing:	Percus	sive
Date of visit:	17/07/2025]	Main Ir	nsp:				5	Sheet Re	elevant:	Υ
S for strong presen	ce: M for medium presence: W for	weak pres	sence								
Fish Number	· · · · · · · · · · · · · · · · · · ·	1 1	2	3	4	5	ı	1	ı		
	er death (if > 45 minutes)			1 hour	1 hour	1 hour					
External Signs						1					
Behaviour	Moribund	S	S	S	S	S					
	Lethargic	S	S	S	S	S				†	
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen										
	Anorexic				S						
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale	М				М					
	Zoned										
	Necrotic										
Lesions	Flank					М					
	Elsewhere										
Vent	Inflamed										
	Trailing faeces										
Lice Load	Estimate numbers				3	2					
Internal Signs											
Ascites	Clear		W								
	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	4	4	4	3	4					
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve										
	Lack of fat	М	М	М	S	М					
Spleen	Enlarged										
	Granulomas										
Gut	No food present	M	М	М	M	М					
	Yellow pseudo-faeces	М	М	М	М	М					
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
		1									
Swim bladder	Haemorrhaging					1	I	i -	1	1	1 7
	Fluid filled										
Kidney	Fluid filled Swollen				W						
	Fluid filled Swollen Grey	W			W						
	Fluid filled Swollen Grey Granular	W			W						
	Fluid filled Swollen Grey Granular Liquefied	W			W						
	Fluid filled Swollen Grey Granular	W			W						

Case no: 2025-0272

Date of visit: 17/07/2025

Date of visit:	17/07/2025							
S for strong presen	ce: M for medium presence: W for v	1						
Fish Number	ise. III for mediam presence. II for t	1	ı	ı				
	er death (if > 45 minutes)							
External Signs	or death (ii > 40 minutes)							
Behaviour	Moribund							
Denavious	Lethargic							
	Hanging vertical							
	Spiralling							
	Flashing							-
	Loss of equilibrium							
Body	Dark							-
Doay	Distended abdomen							-
	Anorexic							
	Scale Oedema							
Opercula	Shortened							-
Opercuia	Flared							
Haemorrhaging	Throat							
riacinorriaging	Ventrum							
	Base of fins							<u> </u>
	Elsewhere							
Eyes	Exophthalmic							
-yes	Enophthalmic (sunken)							—
	Cataract							—
	Haemorrhagic							
Gills	Pale		-	-				
Gilis	Zoned							-
	Necrotic							
Lesions	Flank							
Lesions								-
Vont	Elsewhere							-
Vent	Inflamed							
lian Land	Trailing faeces							
Lice Load	Estimate numbers							
Internal Ciana								-
Internal Signs Ascites	Clear							-
Asciles								-
0-4	Bloody In tissues							-
Oedema Heart	Pale/anaemic							
неагт								
	Granulomas							
1	Deformed		-					
Liver	Petechial haem							-
	Gross haem							
	Tissue breakdown		ļ	ļ				├
	Enlarged							
	Colour number(s)		ļ	ļ				├
	Granulomas		ļ	ļ				<u> </u>
Data da la	Lesions							<u> </u>
Pyloric caeca	Petechial haem							<u> </u>
	Tubules mauve							
	Lack of fat							<u> </u>
Spleen	Enlarged							<u> </u>
	Granulomas							
Gut	No food present							<u> </u>
	Yellow pseudo-faeces			ļ				
	External haem							<u> </u>
	Internal haem							
Body wall	Haemorrhaging							
Swim bladder	Haemorrhaging							
	Fluid filled							
Kidney	Swollen							
	Grey							
	Granular							
	Liquefied							
General	Parasites present							
	Anaemia							
	•		•	•	•			

Site No: FS0696

Case No: 2025-0272

Nature of non-compliance:
Action taken (FHI):
Non-compliance relevant to (delete): VirologyMolGen/Bacteriology/Histology/Parasitology

Case No:	2025-0272			Date of visit:	17/07/2025			
Site No:	FS0696	3		Main Insp:				
DIt- C	Ir	1		D	£ NI-4:£:	4:		
Results Summary	Freq.	Database	Insp		te of Notifica Insp	Writing	Insp	2 nd Insp
MG BKD	0/5	22/07/2025		22/07/2025		19/08/2025	-	2 11130
// IHNQ	0/5	23/07/2025		23/07/2025		19/08/2025		
MG IPN	0/5	23/07/2025		23/07/2025		19/08/2025		
MG ISA	0/5	23/07/2025		23/07/2025		19/08/2025		
MG PMCV	0/5	23/07/2025		23/07/2025		19/08/2025		
MG SAV	0/5	23/07/2025		23/07/2025		19/08/2025		
MG VHS	0/5	23/07/2025		23/07/2025		19/08/2025		
MG AGD	0/2	23/07/2025		23/07/2025		19/08/2025		
MG PARA THER	2/2	23/07/2025		23/07/2025		19/08/2025		
MG SAL POX	1/2	23/07/2025		23/07/2025		19/08/2025		
PRV PCR	5/5	30/07/2025		30/07/2025		19/08/2025		
PMCH	5/5	04/08/2025				19/08/2025		
HPAT	4/5	04/08/2025		06/08/2025		19/08/2025		
KPAT	2/5	04/08/2025		06/08/2025		19/08/2025		
SKIN	2/5	04/08/2025		06/08/2025		19/08/2025		
VSPE (A)	1/5	06/08/2025		06/08/2025		19/08/2025		
/SPE (B)	2/5	06/08/2025		06/08/2025		19/08/2025		
JBAC	2/5	06/08/2025		06/08/2025		19/08/2025		
PRV Histology	4/5	01/08/2025		06/08/2025		19/08/2025		
<u> </u>								
		•						
Report Summary								
Case Type	Date	Insp	2 nd Insp					
STI	29/07/202							
OIA	19/08/202							
STI (Re-issue)	15/08/202							
•								



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 BUSINESS NO
 FB0125
 DATE OF VISIT
 17/07/2025

 SITE NO
 FS0696
 SITE NAME
 Fiunary

 CASE NO
 20250272
 Inspector

Amended Fish Health Inspectorate Visit Report

This report replaces the fish health report R22 issued on 29/07/2025 by ______ The previous report should be discarded. The wording of the 3rd paragraph has changed.

The above site was inspected as it is located within one tidal excursion of a site where the presence of clinical bacterial kidney disease (BKD) has been confirmed. A visit has been arranged to confirm or rule out the presence of clinical BKD at this site.

All epidemiological units were inspected. Signs consistent with the presence of clinical BKD were observed and samples were taken for diagnostic purposes. Samples tested negative for the presence of *Renibacterium salmoninarum* (the causative agent of BKD) by PCR, therefore, the Initial Designation Notice (IDN) covering the site has been withdrawn. If, in the future, clinical signs of BKD are observed on the site, the Fish Health Inspectorate must be informed immediately.

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

Signed: Date: 13/08/2025
Fish Health Inspector

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at <u>Fish Health Inspectorate Service Charter - gov.scot</u> (www.gov.scot)



FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 Business No
 FB0125
 Date of Visit
 17/07/2025

 Site No
 FS0696
 Site Name
 Fiunary

 Case No
 20250272
 Inspector

Section 1: Summary

During a statutory inspection of the stock, clinical signs of disease were observed and five fish were removed for diagnostic sampling.

Histopathological examination revealed mild inflammation of the heart and degeneration of the compact layer of the cardiac musculature. This cardiac inflammation could be associated with a sub-clinical viral infection, most likely related to piscine reovirus (PRV) which was confirmed by QPCR. In the kidney, mild, multifocal necrosis was observed. One fish exhibited signs of cachexia and two fish displayed mild dermatitis. Evaluation of the gill tissue was hindered due to post-mortem artefacts, limiting interpretation.

From bacteriology, two separate *Vibrio* spp. were identified. The level and purity of growth would not suggest these bacteria would be present as primary 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

On 15/07/2025, the listed disease bacterial kidney disease (BKD) was confirmed at a nearby site. As Fiunary is within one tidal excursion (7.258km), a statutory inspection was carried out to rule out or confirm the presence of BKD.

Mortality in the four weeks prior to the inspection was relatively low. An inspection by a vet 17 days before the FHI inspection identified some mostly mild pathology affecting the hearts and gills. Winter sores (causative agent *Moritella viscosa*) were observed on the site shortly after input. *Vibrio* sp. was also identified in the population.

A freshwater treatment was carried out in July 2025 after gill scores rose slightly. The treatment was reportedly effective at reducing gill scores.

During the inspection of stock, ten moribund and lethargic fish were removed from the cages, and five of these were selected for diagnostic sampling.



The external signs of disease and gross pathology for these fish are listed below:

F1: Moribund, lethargic, pale gills, slightly grey kidney, lack of fat associated with the pyloric caeca, no food in the gut and yellow pseudo faeces present.

F2: Moribund, lethargic, a small amount of clear ascites observed internally, lack of fat associated with the pyloric caeca, no food in the gut and yellow pseudo faeces present.

F3: Moribund, lethargic, lack of fat associated with the pyloric caeca, no food in the gut and yellow pseudo faeces present.

F4: Moribund, lethargic, anorexic, a slightly pale liver, slightly swollen kidney, lack of fat associated with the pyloric caeca, no food in the gut and yellow pseudo faeces present.

F5: Moribund, lethargic, pale gills, lesions on the flank, lack of fat associated with the pyloric caeca, no food in the gut and yellow pseudo faeces present.

Samples

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

Fish number	Facility number	Species	Stage	Origin
F1 & F2	7	Atlantic salmon (Salmo salar)	Grower ~900g 2025 S1	Barcaldine First Feeding Unit (FS1325)
F3 & F4	4	Atlantic salmon (Salmo salar)	Grower ~900g 2025 S1	Barcaldine First Feeding Unit (FS1325)
5	8	Atlantic salmon (<i>Salmo salar</i>)	Grower ~900g 2025 S1	Barcaldine First Feeding Unit (FS1325)

Results

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

It should be noted that the standard test for BKD is carried out using qPCR, therefore, no specialised media for the growth of *Renibacterium salmoninarum* was used.

The following bacteria were isolated:

- Vibrio sp.: F2 and F4 (kidney)
- Vibrio sp.: F1 & F5 (kidney); F5 (lesion)
- Unidentified bacteria: F3 & F5 (kidney); F5 (lesion). This bacterium was not fully identified but did not match the characteristics of a known fish pathogen.

Tissue samples were tested for segments of nucleic acid indicative of the presence of *Renibacterium salmoninarum* (the causative agent of BKD) using real-time PCR (qPCR). The samples tested negative for the pathogen.



Virology: Tissue samples were tested for segments of nucleic acid indicative of the presence of the pathogens specified below using real-time PCR (qPCR). Gill pathology was observed in F1 and F5 so these fish were sampled for salmon gill poxvirus (SGPV), *Paranucleospora theridion*, and *Neoparamoeba perurans* (AGD).

SGPV

Fish Number	Endogenous control Cp value		Reported Result (PCR)		
F1	-	-	-	-	Negative
F5	20.18	36.41	36.28	37.41	POSITIVE

Piscine reovirus (PRV)

Fish Number	Endogenous control Cp value		Reported Result (PCR)		
F1	18.29	21.75	21.79	21.90	POSITIVE
F2	18.40	20.93	21.32	21.29	POSITIVE
F3	17.61	18.64	18.54	18.76	POSITIVE
F4	18.48	26.80	26.88	26.76	POSITIVE
F5	18.54	22.66	22.99	23.09	POSITIVE

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

Parasitology:

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

Paranucleospora theridion

Fish Number	Endogenous control Cp value		Reported Result (PCR)		
F1	20.27	36.43	34.64	35.49	POSITIVE
F5	20.18	36.15	35.94	37.66	POSITIVE

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



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

Histopathological examination revealed the following:

<u>Gill</u>: Post-mortem artefacts (F1-F5) with F2 and F3 exhibiting several aneurysmal dilation/telangiectasia - these artefacts hindered reading.

Skin & Muscle: Mild dermatitis (F2, F5), with Gram-negative bacteria (F2).

<u>Heart</u>: Myocarditis, mild, multifocal (F1, F3, F5), endocarditis, mild, multifocal (F1, F3). F1 and F5 also exhibited musculature degeneration at the compact layer. Epicarditis, mild (F1-F3, F5).

Gut and pyloric caeca: F4 exhibited an absence of abdominal adipose tissue and some peritonitis.

Post-mortem artefacts marked (F1, F2, F4, F5).

Pancreas: Within the normal range.

Liver: Hepatocellular vacuolation (macrovesicles) (F2) and areas of pyknotic nuclei (F5).

<u>Kidney</u>: Areas of interstitial necrosis were observed in the haematopoietic tissue (F1), F4 showed a slight increase in melanomacrophages.

Spleen: Some perivascular cuffing was observed (F4) and F2 slightly congested.

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

Signed: Fish Health Inspector

Date: 19/08/2025

The Fish Health Inspectorate Service Charter detailing standards of service is available on the Scottish Government website at <u>Fish Health Inspectorate Service Charter - gov.scot</u> (www.gov.scot)



Fish 1-5. Eye damage in F1, F2 and F5 caused by percussive method of dispatch