FHI 059, Version 13		Issued by: FHI		Date of i	ssue: 12/05/2020
Case No: 2024-0155				Date of visit:	05/06/2024
Time spent on site: 5	hours		Main Inspector:	:	
Site No: FS1083 Business No: FB0119	Site Name: Business Name:	Groatay Mowi Scotland Lt	:d		
Case Types: 1 ECI 2	CNI 3 SLI	4 VMD	5 DIA	6	
Water Temp (°C): 10	Thermometer No:	T305	-	FHI 045 comple	eted N/A
Observations:	Region: WI	Water type:	S	CoGP MA:	W-11
Dead/weak/abnormally behaving Clinical signs of disease observed Gross pathology observed? Diagnostic samples taken?	•	Y If yes, see a	dditional inform	nation/clinical sco nation/clinical sco nation/clinical sco	ore sheet.
UNI/REG only - if unable to carry	out intended visit deta	nil reason below:			

Additional Case Information:

Organic production at site.

Main causes of salmon mortalities on site at the moment are poor performers and seal predation. Mortalities due to AGD have reduced significantly since late 2023/early 2024. Main cause of mortality in lumpfish is Tenacibaculum.

Freshwater treatments (4 hour) throughout January to April on specific pens as treatment for AGD. Plan precautionary freshwater treatment for AGD in June. Hydrogen peroxide treatment on 2 pens in December. Site also stocked with lumpfish from Ocean Matters and wild caught wrasse.

Monitor for plankton and jellyfish, but have stayed below trigger levels for placing fish on starve. Small jellyfish (<1cm diameter) seen in and around pens during inspection.

Fish split down to Grey Horse Channel and Grey Horse Channel Outer during this cycle.

A few poor performers seen in pens with small grade and a couple of lethargic salmon were caught and removed. One had an extremely distended abdomen and the other several small lesions along abdomen. One feeding, healthy fish also removed for VMD sample. All three included in diagnostic sample.

FHI 059, Version 13			lss	sued by: FHI		Da	ate of issue	e: 12/05/2020
Case No:	2024-0155]	Site No:	FS108	33			
Date of Visit:		05/06/202	24		Inspector	(s):		ı
Registration/Autho	risation Det	tails						
1. Business/site deta	ails summary	checked by	site represer	ntative?		Y		
2. Changes made to						Y		1
Site Details (includ	e cleaner fis		ctions)					
Total No facilities		14	Facilities st	tocked	14	No facilities in	spected	14
Species	SAL	LUM	WRS					
Age group	2023 Q2	2023/24	2023/24					
No Fish	435,693	111,376	22,850					
Mean Fish Wt	2.3Kg	Adult	Adult					
Next Fallow Date (S	,	September	2024	Next Input D		March 2025		
Recent (last 4 wks)	disease prob	olems?			N Any esca	pes (since last visit	t)?	N
If yes, detail:								
Manager Departs								
Movement Records		or increation	2					Y
 Movement record Date of last inspe 		or inspection				14	1/11/2023	'
 Date of last inspe Are records comp 		ractly antara	40			14	/11/2023	Y
4. Are movement re		•		2				Y
5. Are records comp				3 (Y
6. Are health certific		-		ilable2				N/A
O. Ale ficalul certific	ales 101 111110	ductions (ca	.with Gb) ava	liabie:				1 4/7 .
Transport Records								
1. Are any movemen		ut by (or on b	ehalf) of the l	business (not ι	ısina a STB)	?		Y
If yes, is there a sys								Y
Mortality Records								
Mortality records a	available for	inspection?						Y
2. How are mortalities		•			Other (de	tail)		
If other detail:		Cockles, rer	odering		04101 (03	tanj		
3. Mortality records								Y
01	, , , , , , , , , , , , , , , , , , ,			Nk 19 (6/5/24)	= 765 (0.179	%), Wk 20 (13/5/24	4) = 574 (0) 13%), Wk
				•	•	27/2/24) = 564 (0.13)	,	7.1070), 111
				,	,	1%), Wk 20 (13/5/2		(0.10%), Wk
						7/2/24) = 16 (0.01%		
4. Recent mortality (last 4 wks):		Wrasse - N	No observed m	ortality in las	st 4 weeks		
5. Evidence of recer	nt increased/	atypical mort	alities?					N
If yes, facility nos/no	mortality pe	r facility/no s	tock per facili	ty/reason:				
6. Any other peaks i	n mortality d	uring period of	checked?					N
If yes, detail:								
7. Have increased (unexplained)	mortalities b	een reported	to vet or FHI?				N/A
If yes, detail action:								V
8. Have 'mortality ev	ents' been re	eported to Fh	II? If no, ente	er details on mo	ortality event	s sheet.		Y

FHI 059, Version 13		Issued by: FHI	Date of issue: 12/05/2020
Treatments and Medic 1. Recent treatments (se			Y
If yes, detail:	T.M.S.		

	·		
If yes, detail:	T.M.S.		
If other, detail:			
2. Medicines records a	available for inspection?		
3. Are records comple	ete and correctly entered?		
4. Are fish in a withdra	awal period?		
5. If yes, what treatme	ent(s)?	TMS	
If other, detail:			
6. Are medicines store	ed appropriately?		
		•	
Biosecurity Records			
1. Biosecurity records	available for inspection?		\ \ \ \ \ \
2. Has the manner and	d frequency of mortality removal, recor	rding and safe disposal been considered?	
3. Has the manner and	d period in which the APB will notify So	cottish Ministers or veterinary professional of any	
increased (unexplaine	ed) mortality at the site been included?		
4. Has the action that	will be taken in the event that the prese	ence or suspicion of the presence of a listed disease	
is detected been inclu	ided and how and when that will be no	tified to Scottish Ministers?	
5. Has the health statu	us of aquaculture animals being stocke	ed on the farm site been covered (equal or higher	
health status, certifica	ition if required)?	•	
6. Have the husbandry	y and biosecurity measures implement	red between each epidemiological unit to minimise	
transmission of diseas	se been covered (movement of staff, vi	isitors, equipment, live or dead fish etc.)?	
7. Is documentation as	vailable regarding the measures in place	ce to maintain the physical containment of	
aquaculture animals h	neld on site?		
8. Have the biosecurit	ty procedures been adequately implem	ented on site?	
If no, detail:			
_			
Results of Surveillan	·		
•	alth surveillance been carried out by, or	r on behalf of, the business?	
•	vailable for inspection?		
3. Any significant resu	ılts?		N
If yes, detail (if not det	tailed under recent disease problems).		

Records checked between:

14/11/2023 (mortality/movement/health results), 5/10/21 (sea lice/BMP/FMS) - 5/6/2024

Case no:	2024-01	155	Site No:		FS1083			Date of		05/	06/2024	05/0
Priority samples:	VI		ВА		PA		MG	-			l	
Time sampling starts/ends:	13:1	5:00	14:0	0:00		Inspecto	or:		1	VMD No	o.	11
Environmental conditions:	1	Indoors	2		3		4		5			
Summary samples	HIST	Y	ВА	Y	MG	Y	VI		PA		Total Sa	amples
dd Fish/Pools - click												
Pool/Fish No	F1	F2	F3									
Fish nos	1	2	3									
Pool Group												
Species	SAL	SAL	SAL									
Average weight	0.7kg		2.5kg									
Sex	N/A											
Water Type	SW	SW	SW									
Stock Origin	Inchmore	lnchmore	24 Inchmore									
	Priority samples: Time sampling starts/ends: Environmental conditions: Summary samples dd Fish/Pools - click Pool/Fish No Fish nos Pool Group Species Average weight Sex Water Type	Time sampling 13:1 starts/ends: Environmental conditions: 1 Summary samples HIST dd Fish/Pools - click Pool/Fish No F1 Fish nos 1 Pool Group Species SAL Average weight 0.7kg Sex N/A Water Type SW	Priority samples: Time sampling starts/ends: Environmental conditions: Summary samples HIST Y dd Fish/Pools - click Pool/Fish No F1 F2 Fish nos 1 2 Pool Group Species SAL SAL Average weight 0.7kg 0.7kg Sex N/A N/A Water Type SW SW Stock Origin	Time sampling 13:15:00 14:0 starts/ends: Environmental conditions: 1 Indoors 2 Summary samples HIST Y BA Add Fish/Pools - click Pool/Fish No F1 F2 F3 Fish nos 1 2 3 Pool Group Species SAL SAL SAL SAL Average weight 0.7kg 0.7kg 2.5kg Sex N/A N/A N/A N/A Water Type SW SW SW Stock Origin U 90 90 90 90 90 90 90 90 90 90 90 90 90	Priority samples: VI BA Time sampling 13:15:00 14:00:00 starts/ends: Environmental conditions: 1 Indoors 2 Summary samples HIST Y BA Y dd Fish/Pools - click Pool/Fish No F1 F2 F3 Fish nos 1 2 3 Pool Group Species SAL SAL SAL SAL Average weight 0.7kg 0.7kg 2.5kg Sex N/A N/A N/A N/A Water Type SW SW SW Stock Origin 95 95 95 95 95 95 95 95 95 95 95 95 95	Priority samples: VI BA PA Time sampling 13:15:00 14:00:00 starts/ends: Environmental conditions: 1 Indoors 2 3 Summary samples HIST Y BA Y MG dd Fish/Pools - click Pool/Fish No F1 F2 F3 Fish nos 1 2 3 Pool Group Species SAL SAL SAL SAL Average weight 0.7kg 0.7kg 2.5kg Sex N/A N/A N/A N/A Water Type SW SW SW Stock Origin 2 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Priority samples: VI BA PA Time sampling 13:15:00 14:00:00 Inspectors starts/ends: Environmental conditions: 1 Indoors 2 3 Summary samples HIST Y BA Y MG Y dd Fish/Pools - click Pool/Fish No F1 F2 F3	Priority samples: VI BA PA MG Time sampling starts/ends: 13:15:00 14:00:00 Inspector: Environmental conditions: 1 Indoors 2 3 4 Summary samples HIST Y BA Y MG Y VI dd Fish/Pools - click F1 F2 F3 F3 F5 F5	Priority samples: VI	Priority samples: VI	Priority samples: VI BA PA MG HI Time sampling 13:15:00 14:00:00 Inspector: VMD No starts/ends: Environmental conditions: 1 Indoors 2 3 4 5 Summary samples HIST Y BA Y MG Y VI PA dd Fish/Pools - click Pool/Fish No F1 F2 F3 Fish nos 1 2 3 9 Pool Group Species SAL	Priority samples: VI

,	1711 000, 10101011 10												
06/2024	Addition	nal Sam	ple Infor	mation:									
3		Total To	ests ass	igned	4								

FHI 059, Version 13 Issued by: FHI Date of issue: 12/05/2020

Case no:	2024-0155]	Site No):	FS1083 Method of killing: Percu			Percus	sive		
Date of visit:	05/06/2024]	Inspect	or(s):				s	heet Re	elevant:	Υ
S for strong presen	ce: M for medium presence: W for	- weak pres	sence								
Fish Number	·	1	2	3							
	er death (if > 45 minutes)	120 mi	130 min	120 min							
External Signs	,										
Behaviour	Moribund										
	Lethargic	M	М								
	Hanging vertical										
	Spiralling										
	Flashing										
	Loss of equilibrium										
Body	Dark										
	Distended abdomen	S									
	Anorexic										
	Scale Oedema										
Opercula	Shortened										
	Flared										
Haemorrhaging	Throat										
	Ventrum										
	Base of fins										
	Elsewhere										
Eyes	Exophthalmic										
	Enophthalmic (sunken)										
	Cataract										
	Haemorrhagic										
Gills	Pale										
	Zoned										
Lastana	Necrotic										
Lesions	Flank		M								
Vent	Elsewhere		IVI								
vent	Inflamed										
Lice Load	Trailing faeces Estimate numbers										
Lice Load	Estimate numbers										
Internal Signs											
Ascites	Clear										
7.00.000	Bloody										
Oedema	In tissues										
Heart	Pale/anaemic										
	Granulomas										
	Deformed										
Liver	Petechial haem										
	Gross haem										
	Tissue breakdown										
	Enlarged										
	Colour number(s)	5	2	5							
	Granulomas										
	Lesions										
Pyloric caeca	Petechial haem										
	Tubules mauve Lack of fat	S									
Spleen	Enlarged	3									
Spieen	Granulomas										
Gut	No food present										
Out	Yellow pseudo-faeces		М								
	External haem										
	Internal haem										
Body wall	Haemorrhaging										
Swim bladder	Haemorrhaging										
	Fluid filled										
Kidney	Swollen										
	Grey										
	Granular										
	Liquefied										
General	Parasites present										
	Anaemia										

Case no: 2024-0155

Date of visit: 05/06/2024

Date of visit.	05/06/202	<u>.+</u>					
S for strong preser	nce: M for medium presence: W fo	r w					
Fish Number	F		1				
	er death (if > 45 minutes)						
External Signs	er death (ii > 40 iiiiidtes)						
Behaviour Seption	Moribund						
Denavious	Lethargic						
	Hanging vertical						
	Spiralling						
	Flashing						
	Loss of equilibrium						
Body	Dark						
Войу	Distended abdomen						
	Anorexic						
	Scale Oedema						
Opercula	Shortened Shortened						
Opercula							
Usamarrhaging	Flared						
Haemorrhaging	Throat						
	Ventrum Peac of fine						
	Base of fins						
Even	Elsewhere						
Eyes	Exophthalmic						
	Enophthalmic (sunken)						
	Cataract						
2	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						

HI 059, Version 13	Issued by: FHI	Date of issue: 12/05/
dditional comments:	arged and filled with clear fluid. When fish wa	e laid on eampling tray, fluid come
out of mouth and spread over tray. No fleace a etc on opposite side from normal.	luid in body cavity. Internal organs were 'mirro	or imaged' with liver and pyloric
ish 2 - abrasion on side of head/opercu	llum along with multiple small lesions along ve	entral surface. Tail very ragged.
ish 3 - no clinical signs or gross patholo	ogy noted	

FHI 059, Version 13		Issued by: FHI			Date of	of issue	: 12/05/2020
Case Number:	2024-0155		Site No:	FS1083		Insp:	
Date of Visit	05/06/2024		No of m	ovements/s	supp./dest.		Score
Live fish movements			0	1-5	6-10	>10	
Movements on (from out	Frequency of m	novements on from equivalent MS	0	5	10	14	0
with GB) of susceptible species		novements on from equivalent zone or	0	0	40	26	0
Species	Number of supp	ocluding third country	0		18 10	26 14	0
	,				ļļ		40
Movements off	Frequency of m		0		6	10	10
Exposure via water	Number of dest	Site contacts			6-10	10	3
Water contacts with other	Farm is protect	ed (secure water supply through	, <u> </u>	I-3	0-10		
farms (holding species	disinfection or b	oorehole)	0				0
susceptible to same diseases)	farms upstream	or in a coastal zone with category I or within 1 tidal excursion	1	2	4		2
	farms upstream	or in a coastal zone with category III or within 1 tidal excursion	1	3	6		0
		or in a coastal zone with category V or within 1 tidal excursion	1	4	8		0
Management practices			None	Secure	Unsecure		
Water contacts with processors	Any processing	plant discharging into adjacent waters	0	1	2		0
On farm processing within the rules of the directive	No on farm pro	cessing	0				0
	Processing owr	n fish (re-cycling risk)	1				0
	Processing fish	from MS of equivalent status	2				0
		from zone or compartment of					
	equivalent statu	from Category III farm	4	-			0
		from Category V farm	8				0
			10	<u></u>			0
Disposal of fish and fish by-	Site's own wast	e only processed.	0				0
products	Common proce	sses with other farms	3				3
	Collection point	for waste from other farms	5				0
Use of unpasteurised feeds	No feeding of u	npasteurised feed	0	1			0
	Feeding unpast	teurised feed	5				0
Biosecurity	•	Number of sites	1	2 or 3	≥ 4		
Contacts with other sites	Sites operating	from single shorebase	0	1	2		1
	Sites sharing st	aff and equipment	0	1	2		1
Disinfection of equipment between sites, use of	Yes		0				0
footbaths etc	No		1				0
CoGP/Regulator							
Practices in accordance	Yes		0				0
with regulator or industry code of practice	No		3				0
Platform access to cages	Yes		0	1			0
	No		2				0
					Total Rank		MEDIUM

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Case No: 2024-0155	Site No:	FS1083
Sea Lice Inspection (Seawater Sites Only) 1. Has the site experienced sea lice problems in the previo 2. Is the CoGP Farm Management Area (or equivalent) fal 3. Does the site have access to a range of licenced in-feed azamethiphos and emamectin benzoate) as well as acces can these be deployed in a reasonable period of time?	lowed synchronously on a single y I and bath sea lice medications (inc	cluding deltamethrin,
4. Is there a signed documented farm management agreer Management Area (or equivalent)?	nent or statement relevant to the s	ite and CoGP Farm
5. Are sea lice count records available for inspection? (Leg 6. Do records adequately reflect the required standard spe	•	egal SSI, CoGP Annex 6)
7. Are sea lice (<i>L. salmonis</i>) record levels below the sugge records are inspected? (CoGP Annex 6)	ested criteria for treatment in the Co	oGP during the period that N
8. Have average adult female sea lice (<i>L. salmonis</i>) number 2 or above (from w/b 10/6/19) during the period that record		above (prior to w/b 10/6/19) or Y
If yes, have these been reported to the Fish Health Inspect 9. Is C. elongatus infestation at a level which is considered		ems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been administered or othe suggested criteria for treatment or where <i>C. elongatus</i> is c		
11. Has any other action been taken (where applicable)? 12. Have therapeutic treatments or the actions taken had a 13. Are treatments, where conducted, carried out in cooper 14. Is there a harvesting strategy for the site, where fewer p 15. See lice?	ration between participating farms?	? Y
15. Is there a site specific written lice management proceduseenarios during the escalation of a sea lice infestation?	ure with waypoints describing set a	actions to deal with recognised Y
16. Do the sea lice levels observed on stocks reflect sea lice	ce count data? If no please detail re	easons. Y
Containment Inspection 1. Has the site experienced equipment damage due to pred 2. Are measures in place to mitigate against the predation Bird nets Tensioned nets If other, detail below:		
3. Have escape incidents or events been experienced on	or in the vicinity of the site since the	e last FHI inspection?
If Yes proceed with questions 4 – 9. If No skip to question 4. Have these been reported to Scottish Ministers? 5. Have these been reported to local DSFB forthwith (where 6. Have these been reported to the SSPO and local fishered	e they exist)? (CoGP – 4.4.37, 5.4	•
7. Were methods (if any) used to recover escapees? If yes	give detail	
8. If gill nets were deployed was this action agreed with loc Ministers? (Legal, CoGP – 4.4.38, 5.4.18) 9. What action was taken to prevent and minimise the risk be considered under satisfactory measures of the Ac	of further escapes? (Not covered in	
10. Is the site inspected as satisfactory with regards to con		on(s)

FHI 059, Version 13	Issued	d by: FHI	Date of	issue: 12/05/2020
Case No: 2024-0155	Site No: FS10	83		
Date of Visit: 05/06/2024	Inspector:			
Point of Compliance				
1. Is the farm under inspection located v	within a farm managen	nent area?		Υ
If N, no further questions require comple	etion.			
Points of Compliance for Both Farm	Management Agreem	ents and Statements		
2. Has a current farm management agre			d?	Y
3. Is the current FMAg/S available for in		3 / 1 1		Υ
4. Does the FMAg/S identify the relevan	it farm management a	rea?		Υ
5. Does the FMAg/S identify the fish far	m site(s) to which it ap	plies?		Y
6. Does the FMAg/S identify the date of	commencement of the	e agreement or stateme	nt?	Υ
7. Does the FMAg/S identify the date of	review?			Υ
Arrangements for Fish Health Manag	ement			
8. Does the FMAg/S identify the minimularm?		r the stocks to be introd	uced to the area or	Y
9. Does the FMAg/S identify the vaccina	ation requirements for	stocks held in the area	or farm?	Υ
10. Does the FMAg/S identify the specie	es of fish which may be	stocked into the area	or farm?	Υ
11. Does the FMAg/S identify the maxin individual farm?	num stocking density o	of any pen on any farm i	n the area or the	Υ
12. Does the FMAg/S identify the arrang fish farm in the area or the individual fa	<u> </u>	e and disposal of any de	ead fish from any	Y
Arrangements for The Management o	of Sea Lice			
13. Does the FMAg/S identify arrangem	ents for the sharing of	data on sea lice number	ers and treatments?	Υ
14. Does the FMAg/S identify the availa of statement?	bility and the use of me	edicines on farms cover	red by the agreement	Υ
15. Does the FMAg/S identify any requir		vity testing of available t	reatments for sea	Y
lice on farms in the area or individual fa				
Does the FMAg/S identify the circun used on farms in the area or individual f		biological controls and d	cleaner fish are to be	Y
17. Does the FMAg/S identify the arrang	gements for synchrono	us treatments on farms	within the area?	Y
Live Fish Movements				
18. Does the FMAg/S identify the circun area or farm?	nstances when live fish	n may be introduced or i	removed from the	Υ
19. Does the FMAg/S identify the arrang or individual farms?	gements for the moven	nent of live fish on and o	off sites in the area	Υ

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Harvesting 20. Does the FMAg/S identify acceptable	le harvest practices on farms in the area or individ	dual farms?
date when a farm or area may be restor		
agreement or statement?	one or more year classes may be stocked onto sit	
 Does the FMAg/S identify whether to covered by the agreement or statement 	proodstock or potential broodstock are to be kept ?	on any site
Point of Compliance for Farm Manag 24. Does the farm management agreen parties to the agreement?	pement Agreements Only nent include arrangements for persons to become	e, or cease to be, N/A
Management and operation 25. Is the fish farm being managed and 26. What is the version no/date of issue	operated in accordance with the agreement or stee of the FMAg/S? 23/3/23 (updated 1/4/2)	

Site No: FS1083

Case No: 2024-0155

Nature of non-compliance:

Action taken (FHI):

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

Case No:	2024-0155			Date of visit	t: 05/06/202	4		
				Date of viol	35, 35, 252			
Site No:	FS1083]		Inspector	7:			
Results Summary	Freq.			D	ate of Notifica	ation		
		Database	Insp	Phone	Insp	Writing	Insp	2 nd Insp
ISA PCR	1/3	07/06/2024		07/06/2024	4	28/06/2024		
IPN PCR	0/3	07/06/2024		07/06/2024	4	28/06/2024		
PMCV PCR	0/3	07/06/2024		07/06/2024	4	28/06/2024		
VHS PCR	0/3	07/06/2024		07/06/2024	4	28/06/2024		
IHN PCR	0/3	07/06/2024		07/06/2024	4	28/06/2024		
SAV PCR	0/3	07/06/2024		07/06/2024	4	28/06/2024		
ISA sequence HPR0	1/1	11/06/2024		11/06/2024		28/06/2024		
SKIN	1/3	17/06/2024		17/06/202		28/06/2024		
HPAT	1/3	17/06/2024		17/06/202		28/06/2024		
VSPE (2 spp)	2/3	17/06/2024		17/06/2024		28/06/2024		
- (- /								
	_							
Report Summary	T			1				
Case Type	Date	Insp	2 nd Insp					
ECI/CNI/SLI/VMD	13/06/2024							
DIA	28/06/2024							
	1							

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 BUSINESS NO
 FB0119
 DATE OF VISIT
 05/06/2024

 SITE NO
 FS1083
 SITE NAME
 Groatay

 CASE NO
 20240155
 INSPECTOR

Section 1: Summary

During a routine inspection, a number of poor performing Atlantic salmon with clinical signs of diseases were observed. Two lethargic fish, along with a third for sampling for veterinary residues, were removed for further examination and diagnostic sampling.

Histopathology examination revealed one fish with ulcerative skin and one fish with mild, multifocal myocarditis. One fish displayed some cachexia.

Samples were screened for infectious salmon anaemia virus (ISAV) by QPCR as part of the surveillance program for the control of listed diseases. One sample tested positive and the sequence data confirmed the presence of ISAV HPR0, the non-pathogenic form of the virus. In relation to the ISAV HPR0 result obtained, along with the observations made on site, no further statutory action is required to be taken in this case, ISAV HPR0 not being a disease listed in The Aquatic Animal Health (Scotland) Regulations 2009.

Two *Vibrio* species were identified. The level and purity of growth would not suggest these bacteria would be present as primary pathogens overall, however, the level of growth observed would suggest an impact on the health of F2.

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

During a routine inspection a small number of small, poor performing Atlantic salmon were observed in the pens holding the small grade of fish. Two lethargic fish were removed from pen 24 for further examination and diagnostic sampling. A healthy fish was also removed from pen 34 for collection of samples for veterinary residues analysis and included in the diagnostic sample.

At the time of the inspection the site was stocked with 435,396 Atlantic salmon at 2.3 kg average weight, 111,376 lumpfish and 22,850 wrasse. Mortality levels on the site were low with the main causes of mortalities in the salmon attributed to poor performers and seal predation.

F1 had an extremely distended abdomen and F2 had a number of small skin lesions along the abdomen and an abrasion on the side of the head/operculum. Internally F1 had an extremely enlarged, fluid filled stomach and no fat on the pyloric caeca. F2 had a pale liver and yellow pseudo faeces in the gut. No clinical signs or pathology were observed in F3.

Samples

R09

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

Fish number	Facility number Species		Stage	Origin	
F1 & F2	24	Atlantic salmon	2023 Q2	Inchmore	
F3	34	Atlantic salmon	2023 Q2	Inchmore	

Results

Bacteriology: Kidney and gill material from F1-F3 and lesion material from F2 were inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated from fish 1 and 2

- Vibrio species: F1 (kidney), F2 (kidney, gill and lesion)
- *Vibrio* species: F1 (kidney), F2 (kidney and lesion)

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

Infectious salmon anaemia virus (ISAV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	17.34	37.62	38.29	36.94	POSITIVE
F2	-	-	-	-	Negative
F3	-	-	-	-	Negative

Sequencing analysis confirmed ISAV, HPR0 (non-deleted type).

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

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

Histopathological examination revealed the following:

Gill: One lamellae with epithelium hyperplasia (F3). F1 displayed some post-mortem artefacts.

Skin & Muscle: Lesion: Absence of epidermis and dermal oedema with presence high numbers of mixed Gram-negative bacteria (F2).

Heart: Mild, multifocal myocarditis (F3).

Gut and pyloric caeca: Absence of abdominal adipose tissue (F1). Marked cell sloughing potentially associated with post-mortem artefact) (F1).

R09

Pancreas: Within the normal range.

Liver: Mild perivascular fibrosis (F1).

Kidney: Reduce interstitial tissue, moderate, multifocal (F3).

Spleen: Some cuffing (F3).

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



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)

Date: 28/06/24

FISH HEALTH INSPECTORATE VISIT REPORT

SUMMARY FOR INFORMATION OF SITE OPERATOR

 BUSINESS NO
 FB0119
 DATE OF VISIT
 05/06/2024

 SITE NO
 FS1083
 SITE NAME
 Groatay

 CASE NO
 20240155
 INSPECTOR

Inspection under the Aquatic Animal Health (Scotland) Regulations 2009

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

All epidemiological units were inspected. 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 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.

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.

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

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

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. R25

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 further information or have any queries regarding this report.



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)



Fish 1 and head of fish 2



Fish 1, 2 and 3



