FHI 059, Version 13	lssu	ed by: FHI	Date of issue: 12/05/2020
Case No: 2024-0181			Date of visit: 12/06/2024
Time spent on site: 5	nrs	Main I	nspector:
Site No: FS0336	Site Name:	Druimyeon Bay	
Business No: PB0109	Business Name:	Bakkairost Scotland	
Case Types: 1 ECI	2 CNI 3 SLI	4 DIA 5	6
Water Temp (°C): 11.8	Thermometer No:	T173	FHI 045 completed N/A
Observations:	Region: ST	Water type: S	CoGP MA: M-46
Dead/weak/abnormally behaving	fish present?	Y If yes, see addition	al information/clinical score sheet.
Clinical signs of disease observed	d?	Y If yes, see addition	al information/clinical score sheet.
Gross pathology observed?		Y If yes, see addition	al information/clinical score sheet.
Diagnostic samples taken?		Y	
UNI/REG only - if unable to carry	out intended visit detail rea	son below:	

### FHI 059, Version 13 Additional Case Information:

### SAL MORTALITY

Peaks in mortality - 2022 wks45 to 49 (mort count for period- 142,565) mainly attributed to Pancreas disease and environmental conditions (water quality) reported to FHI during mortality event.

Peaks in mortality - 2023 wks11 to 30 (mort count for period- 71,447) attributed mainly Pancreas disease and environmental conditions (water quality) reported to FHI during mortality event. FW treatments were administered during this period, treatments attributed to some of the mortalities.

#### **USB MORTALITY**

Records checked between 09/11/2022 to 10/06/2024 no peaks in wrasse mortality. However, 30,705 black losses was recorded for Ballan wrasse during this period.

There was 773 black losses recorded for mixed wrasse during this period.

Conducted routine FW/ FLS treatments in May 2024.

Site have noted slight increases in salmon mortalities. Suspected gill issues - gills have been scoring high with PGD. Expected to conduct FW/ FLS treatment at the weekend.

Site have observed recent increases in jellyfish numbers.

During the inspection it was observed some lethargic fish across the site, they were observed hanging to the outer edges of the cages. Fish were observed to be nosing into the tide/ current. Potentially gill related issues. 4 fish were removed for diagnostic sampling.

Inspection and case paperwork conducted by supervised by . Diagnostic sampling - Fish 1 & 4 sampled by 2 & 3 sampled by .

FHI 059, Version 13			Issue	ed by: FHI			Date of issue: 1	12/05/2020
Case No:	2024-0181	]	Site No:	FS0336	5			
Date of Visit:		12/06/2024	]		Inspector(s):			
Registration/Autho	risation Det	ails	ita rapresenta	tive?			V	
2. Changes made to	details?	checked by 5	ne representa	uve:			Y	
Site Details (includ	e cleaner fis	h for all sect	ions)		40			
Total No facilities	0.41	16	Facilities sto	cked	16	No facilitie	es inspected	
Age group	SAL							
No Fish	2023 Q2					_		
Mean Fish Wt	437,347 3 5kg							
Next Fallow Date (S	3.5Kg	July/ August	2024	Next Input Da	ate (Site)	December	r 2024	
Recent (last 4 wks)	disease prob	lems?	2024	Y	Any escapes	s (since last	visit)?	
If ves detail:	Gill Health is	ssues			Any coouped		visity.	
<ol> <li>Movement record</li> <li>Date of last inspected</li> <li>Are records comption</li> <li>Are movement records comption</li> <li>Are records comption</li> <li>Are health certific</li> <li>Transport Records</li> <li>Are any movement</li> <li>If yes, is there a system</li> <li>Mortality Records</li> </ol>	s available fo ction: lete and corr cords availab lete and corr ates for introd nts carried ou tem in place f	or inspection? ectly entered? ectly entered? ductions (outwork) to by (or on beat for maintenance)	h and waste? vith GB) availa half) of the bu ce of transpor	ible? siness (not usi tation records?	ing a STB)? ?		09/11/2022	
1. Mortality records a	available for i	inspection?						
2. How are mortalitie	es disposed o	of?			Biogas - Bar	kip		
If other detail:	Fish put in s	kip and taken	up by Billy Bo	wie to Barkip				
3. Mortality records	complete and	correctly ente	ered? wk20 1708	(0.39%), wk21	2063 (0.47%)	), wk22 (244	46 (0.57%), wł	
4. Recent mortality (	last 4 wks):		(0.65%)					
5. Evidence of recer	it increased/a	atypical mortal	ities ?					
If yes, facility nos/no	mortality per	r facility/no sto	ck per facility/	reason:				
See recent mortalitie	s n mortality du	uring period of	ookod2					
If ves detail:	Soo addition	aning period cit						
7 Have increased (	inexplained)	mortalities be	en reported to	vet or FHI2				
If ves, detail action:	(incorplaned)	inortanties be						
8. Have 'mortality ev	ents' been re	ported to FHI	? If no, enter o	details on mort	ality events sh	neet.		

Treatments and Medicines Records								
1. Recent treatments (see comment)?								
If yes, detail:								
If other, detail:								
2. Medicines records available for inspection?								
3. Are records complete and correctly entered?								
4. Are fish in a withdrawal period?								
5. If yes, what treatment(s)? Opto	omease							
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 a	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</i> ( <i>unexplained</i> ) mortality at the site been included?								
4. Has the action that will be taken in the event that the presence of	or suspicion of the presence of a listed disease							
is detected been included and how and when that will be notified	to Scottish Ministers?							
5. Has the health status of aquaculture animals being stocked on t	the farm site been covered (equal or higher							
health status, certification if required)?								
6. Have the husbandry and biosecurity measures implemented be	tween 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 r	maintain the physical containment of							
aquaculture animals held on site?								
8. Have the biosecurity procedures been adequately implemented	on site?							
it no, detail:								
Deputte of Currelliance								
1. Has any animal health surveillance been carried out by, or on b	shalf of the husiness?							
2. If yes, are results surveilable for inspection?								
2. If yes, are results available for inspection?								
J. Any significant results :								
n yes, detail (il not detailed under recent disease problems).								
Becords sheeled between:	1/2022 12/06/2024							

Records checked between:

09/11/2022 - 12/06/2024



	N
_	$\overline{\mathbf{v}}$
	Ŷ
	Y
	Y
	Y
	Y
	Y
_	Y
	I
	Y
	Y
	Y
	Y
	Y
	N

F۲	II 059, Version 13		Issued by: FHI										
	Case no:	2024-0 <sup>-</sup>	181	Site No:	:	FS0336	)		Date of	visit/	12/	06/2024	12/(
	Priority samples:	VI		BA		PA		MG	Samplin	ng: HI		I	
	Time sampling starts/ends:	11:5	0:00	14:3	0:00		Inspecto	or:			VMD No	o.	0
	Environmental conditions:	1	Indoors	2		3		4		5			
	Summary samples	HIST	Y	BA	Y	MG	Y	VI		PA		Total Sa	amples
A	dd Fish/Pools - click												
	Pool/Fish No	F1	F2	F3	F4								
	Fish nos	1	2	3	4								
	Pool Group	P1	P1	P1	P1								
	Species	SAL	SAL	SAL	SAL								
	Average weight	3.5kg	3.5kg	3.5kg	850g								
	Sex	N/A	N/A	N/A	N/A								
	Water Type	SW	SW	SW	SW								
tock Details	Stock Origin	Plocrapol (FS1256)	۲ Plocrapol (FS1256)	Plocrapol (FS1256)	Flocrapol (FS1256)								
0)	r donity no	0			10								

06/2024 Additional Sample Information:													
F3 - eyeball sampled due to exopthalmia													
4 Total Tests assigned 5													
	_												
	-												

FHI 059, Versio		Issued by: FHI					Date of issue: 12/05/20					
Case no:	2024-0181		Site No	D:	FS033	6	M	ethod o	f killing:	Percus	sive	
Date of visit:	12/06/202	4	Inspec	tor(s):				5	Sheet Re	elevant:	Y	1
S for strong preser	nce: M for medium presence: W fo	r weak pres	sence									
Fish Number	ice. In for moulain procence. W ie	1	2	3	4		· · · ·		<u> </u>			1
Time sampled aft	er death (if > 45 minutes)	60	80	100	120	)						1
External Signs												1
Behaviour	Moribund	S	S	S	S							
	Lethargic	S	S	S	S							
	Hanging vertical	_			_							
	Spiralling	_			_							
	Flashing	_			-							
Body	Dark	_			м							
bouy	Distended abdomen	-										
	Anorexic				S							
	Scale Oedema											1
Opercula	Shortened											1
	Flared											
Haemorrhaging	Throat											
	Ventrum											
	Base of fins											
Even	Eisewnere			e	-							1
Eyes	Exophthalmic Enophthalmic (ounkon)	_		3	-							
	Cataract	-			м							
	Haemorrhagic	-		м							_	
Gills	Pale		М	S	S							
	Zoned											1
	Necrotic		М									1
Lesions	Flank											
	Elsewhere	S										
Vent	Inflamed											
	Trailing faeces											
Lice Load	Estimate numbers	1			_							
Internal Signe			-		-							
Ascites	Clear											
Aseres	Bloody											
Oedema	In tissues											
Heart	Pale/anaemic				M							1
	Granulomas											
	Deformed	S	М									
Liver	Petechial haem											
	Gross haem	_										
	Tissue breakdown				_							
	Colour number(s)											
	Granulomas											1
	Lesions											1
Pyloric caeca	Petechial haem											1
	Tubules mauve				М							
	Lack of fat				S							
Spleen	Enlarged	S	М	М	М							
<b>.</b> .	Granulomas											
Gut	No food present	VV	VV	vv	vv							
	Tellow pseudo-faeces											1
	Internal haem											1
Body wall	Haemorrhaging		M									1
Swim bladder	Haemorrhaging		Ŵ									1
	Fluid filled											1
Kidney	Swollen											1
	Grey											]
	Granular											]
	Liquefied											l
General	Parasites present											
	Anaemia											

### FHI 059, Version 13

Case no:	2024-0181			

Date of visit:

12/06/2024

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

Fish Number						
Time sampled afte	r death (if > 45 minutes)					
External Signs						
Behaviour	Moribund					
	Lethargic					
	Hanging vertical					
	Spiralling					
	Flashing					
	l oss of equilibrium					
Body	Dark					
Douy	Distended abdomen					
	Anorexic					
	Scale Oedema					
Opercula	Shortened					
Opercula	Flared					
Usemorrhaging	Throat		 			
naemornaging	Ventrum					
	Peece of fire					
<b>F</b>	Elsewhere					
Lyes	Exoprimalmic					
	Enophthalmic (sunken)					
0.111-	Haemorrnagic					
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					
S ANN DIAUGEI	Eluid filled					
Kidney	Swollen					
Nulley	Grev					
	Crepular					
Conorci	Deregites present					
General	rarasites present					
	Anaemia					

### Additional comments:

F1 - lesion on operculum. Histo could not be taken. Bacteriology taken on FMM & TSAS. Deformed heart - was observed enclosed by the Liver and was hard.

FHI 059, Version 13

Issued by: FHI

Case Number:	2024-0181		Site No:	FS0336		Insp:	
Date of Visit	12/06/2024		No of mo	ovements/s	supp./dest.		Score
Live fish movements			0	1-5	6-10	>10	
Movements on (from out	Frequency of n	novements on from equivalent MS	0	5	10	14	0
with GB) of susceptible species	Frequency of n compartment ir	novements on from equivalent zone or ncluding third country	0	9	18	26	0
	Number of sup	pliers	0	5	10	14	0
Movements off	Frequency of n	novements off	0	3	6	10	10
	Number of des	tinations	0	3	6	10	3
Exposure via water		Site contacts	0	1-5	6-10		
Water contacts with other farms (holding species	Farm is protect disinfection or l	ed (secure water supply through borehole)	0				
susceptible to same	Farm is on-line	or in a coastal zone with category I	1	2	4		2
uiseuses)	Farm is on-line	or in a coastal zone with category III	· ·	2	4		2
	farms upstrean	n or within 1 tidal excursion	1	3	6		
	Farm is on-line	or in a coastal zone with category $V$					
	farms upstrean	n or within 1 tidal excursion	1	4	8		
Management practices			None	Secure	Unsecure		
Water contacts with processors	Any processing	plant discharging into adjacent waters	0	1	2		0
On farm processing within	No on farm pro	cessing		1			
the rules of the directive	Processing ow	n fish (re-cvcling risk)	0				0
	Processing fish	from MS of equivalent status	1				
	Processing fish	from zone or compartment of	2				
	equivalent stat	us	4				
	Processing fish	n from Category III farm	8				
	Processing fish	n from Category ∨ farm	10				
Disposal of fish and fish by-	Site's own was	te only processed.	0	ĺ			
products	Common proce	esses with other farms	3				3
	Collection poin	t for waste from other farms	5				
	No feeding of r	upporte unional food		1			
Ose of unpasteurised leeds	Fooding upper		0				0
Dia a surita	reeding unpas	Number of oitee	3	2 05 2	24		
Contacts with other sites	Sites operating	from single shorebase		2013	<u> </u>		
	Sites sharing s	taff and equipment	0	1	2		1
	ones sharing s		0	ı	2		
Disinfection of equipment	Yes		0				0
footbaths etc	No		1				
CoGP/Regulator							
Practices in accordance	Yes		0				0
with regulator or industry code of practice	No		3				
Platform access to cages	Yes		0				0
	No		2				
					Total		
					Park		20
					I AIIK		

FHI 059, Version 13	Issued by: FHI	Date of issue: 12/05/2020
Case No: 2024-0181	Site No:	FS0336
Sea Lice Inspection (Seawater Sites Only) 1. Has the site experienced sea lice problems 2. Is the CoGP Farm Management Area (or ed 3. Does the site have access to a range of lice azamethiphos and emamectin benzoate) as a can these be deployed in a reasonable period	in the previous 4 years? quivalent) fallowed synchronously on a single y enced in-feed and bath sea lice medications (in well as access to suitable biological and/or med l of time?	/ear class basis? Icluding deltamethrin, Chanical control measures, and
4. Is there a signed documented farm manage Management Area (or equivalent)?	ement agreement or statement relevant to the s	ite and CoGP Farm
<ol> <li>5. Are sea lice count records available for insp</li> <li>6. Do records adequately reflect the required s</li> </ol>	pection? (Legal SSI, CoGP Annex 6) standard specified in the SSI and the CoGP? (L	_egal SSI, CoGP Annex 6)
7. Are sea lice ( <i>L. salmonis</i> ) record levels bel records are inspected? (CoGP Annex 6)	ow the suggested criteria for treatment in the C	oGP during the period that Y
8. Have average adult female sea lice ( <i>L. salr.</i> 2 or above (from w/b 10/6/19) during the period	<i>monis</i> ) numbers per fish been at a level of 3 or od that records are inspected?	above (prior to w/b 10/6/19) or N
If yes, have these been reported to the Fish H 9. Is <i>C. elongatus</i> infestation at a level which	lealth Inspectorate? If no, FHI see comment. is considered to cause significant welfare probl	lems? (CoGP 4.3.81, 5.3.50)
10. Have therapeutic treatments been adminis suggested criteria for treatment or where <i>C</i> . e	stered or other actions taken when <i>L. salmonis</i> <i>longatus</i> is considered to have welfare implicat	levels have exceeded the Y tions? (CoGP 4.3.82, 5.3.51)
<ul><li>11. Has any other action been taken (where a 12. Have therapeutic treatments or the actions</li><li>13. Are treatments, where conducted, carried</li><li>14. Is there a harvesting strategy for the site, visea lice?</li></ul>	pplicable)? s taken had a significant impact upon the lice le out in cooperation between participating farms where fewer populations or part populations are	e held without treatment for
15. Is there a site specific written lice manage scenarios during the escalation of a sea lice in	ment procedure with waypoints describing set a nfestation?	actions to deal with recognised Y
16. Do the sea lice levels observed on stocks	reflect sea lice count data? If no please detail r	reasons. Y
Containment Inspection 1. Has the site experienced equipment damage 2. Are measures in place to mitigate against the Seal pro nets Top/ bird nets If other, detail below:	ge due to predators in the current or previous pr he predation experienced on site? (Detail below	roduction cycles? N v) Y
<ol> <li>Have escape incidents or events been explif Yes proceed with questions 4 – 9. If No skip</li> <li>Have these been reported to Scottish Minis</li> <li>Have these been reported to local DSFB for</li> <li>Have these been reported to the SSPO and</li> </ol>	erienced on or in the vicinity of the site since the to question 10 iters? rthwith (where they exist)? (CoGP – 4.4.37, 5.4 d local fisheries trusts forthwith (where they exist)	e last FHI inspection? N 4.17) st)? (CoGP – 4.4.37, 5.4.17)
7. Were methods (if any) used to recover esca	apees? If yes give detail	
<ul> <li>8. If gill nets were deployed was this action ag Ministers? (Legal, CoGP – 4.4.38, 5.4.18)</li> <li>9. What action was taken to prevent and minim be considered under satisfactory measure 10. Is the site inspected as satisfactory with residuation.</li> </ul>	greed with local wild fish interests and was perm mise the risk of further escapes? (Not covered i res of the Act) egards to containment? If no, please detail reas	nission given by Scottish in code but could son(s)



FHI 059, Version 13	Issued by: FHI	Date of issue	: 12/05/2020
Harvesting 20. Does the FMAg/S identify acceptabl	e harvest practices on farms in the area or individual farms?	Y	
Fallowing			
21. Does the FMAg/S identify the dates date when a farm or area may be restor	by which the area or individual farm will be fallow and the ea cked?	rliest Y	
22. Does the FMAg/S identify whether o the agreement or statement?	ne or more year classes may be stocked onto sites covered	by Y	
23. Does the FMAg/S identify whether b covered by the agreement or statement	proodstock or potential broodstock are to be kept on any site ?	Y	
<b>Point of Compliance for Farm Manag</b> 24. Does the farm management agreem parties to the agreement?	ement Agreements Only nent include arrangements for persons to become, 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 statement? of the FMAg/S? 23/01/2024	Y	

Case No:	2024-0181	Date of visit: 12/06/2024
Site No:	FS0336	Inspector:

Results Summary	Freg.			Date of Notification				
-		Database	Insp	Phone	Insp	Writing	Insp	2 <sup>nd</sup> Insp
Paranucleospora theridion (PCR) - PNST	4/4	18/06/2024		18/06/2024				
· · ·						18/07/2024		
Salmon gill poxvirus (PCR) - SPVP	3/4	18/06/2024		18/06/2024		18/07/2024		
AGD (Neoparamoeba	0/4	18/06/2024		18/06/2024				
AGDQ						18/07/2024		
IPN (PCR) - IPNM	1/4	19/06/2024		19/06/2024		18/07/2024		
ISA (real time qPCR - heart & kidney) - ISAQ	0/4	19/06/2024		19/06/2024		18/07/2024		
Piscine myocarditis virus (CMS) (PCR) -	0/4	19/06/2024		19/06/2024		19/07/2024		
	0/4	19/06/2024		10/06/2024		18/07/2024		
	0/4	19/06/2024		19/06/2024		18/07/2024		
Salmonid alphavirus	0/4	19/06/2024		19/06/2024		18/07/2024		
Aeromonas (histology) AERH	2/4	27/06/2024		27/06/2024		18/07/2024		
Heart pathology - HPAT	4/4	27/06/2024		27/06/2024		18/07/2024		
Gill pathology - GPAT	4/4	27/06/2024		27/06/2024		18/07/2024		
Kidney pathology - KPAT	2/4	27/06/2024		27/06/2024		18/07/2024		
Muscle pathology - MPAT	3/4	27/06/2024		27/06/2024		18/07/2024		
Spleen pathology - SPAT	2/4	27/06/2024		27/06/2024		18/07/2024		
Aeromonas salmonicida (Eurunculosis) - ASAI	4/4	27/06/2024		27/06/2024		18/07/2024		
Aeromonas spp - AERO	4/4	27/06/2024		27/06/2024		18/07/2024		
Yersinia ruckeri (ERM) - YRUK	1/4	27/06/2024		27/06/2024		18/07/2024		
	I							
D 10				1				

Report Summary			
Case Type	Date	Insp	2 <sup>nd</sup> Insp
ECI, CNI, SLI	19/06/2024		
DIA	18/07/2024		

## FISH HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

BUSINESS No FB0169 SITE NO FS0336 CASE NO 20240181

DATE OF VISIT 12/06/2024 SITE NAME INSPECTOR

Druimyeon Bay

### Section 1: Summary

During a routine site inspection, a number of lethargic fish were observed across the site. The fish were observed hanging around the outer edges of the pens, nosing into the tide / current. Four fish were removed for further examination and subsequent diagnostic sampling.

Histopathology examination revealed features consistent with Aeromonas salmonicida (furunculosis), which was also isolated on the plates. The level of purity and growth would suggest this bacterium is present as the primary pathogen and would be implicated in morbidity. Mild hyperplasic branchitis was also observed during histopathology examination.

Yersinia ruckeri was isolated from F4 The growth levels and purity would suggest that it would be implicated in morbidity in this fish.

Samples were also screened and tested positive by qPCR for the following Paranucleospora theridion and salmon gill poxvirus (SGPV).

Samples from F4 tested positive for infectious pancreatic necrosis virus (IPNV).

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, the site had noted slight increases in salmon mortalities suspected to be related to gill issues, as they had observed high scoring of PGD during checks. The site had conducted routine FW / FLS treatments in May 2024. Site had observed an increase in the number jellyfish across the site.

All fish that were sampled were observed to be lethargic and moribund. A skin lesion on the operculum was present on F1. F4 was anorexic and colouration appeared to be dark. Bi-lateral exophthalmia was evident on F3 and developing cataract in F4. Pale gills were observed in F2 to F4, mild necrosis of the gills was noted on F2.

Internally, F4 heart was pale / anaemic, F1 and F2 hearts were deformed, F1 heart was observed to be hard and enclosed by the liver. Splenomegaly evident in all fish. Lack of fat on the pyloric caeca was observed in F4. Haemorrhaging of the body wall and swim balder was observed in F2. No food was observed in the guts of all fish sampled.

### Samples

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

Fish number	Facility number	Species	Stage	Origin
F1	8	Atlantic Salmon	2023 Q3; 3.5kg	Plocrapol (FS1256)
F2	7	Atlantic Salmon	2023 Q3; 3.5kg	Plocrapol (FS1256)
F3	1	Atlantic Salmon	2023 Q3; 3.5kg	Plocrapol (FS1256)
F4	15	Atlantic Salmon	2023 Q3; 3.5kg	Plocrapol (FS1256)

### <u>Results</u>

**Bacteriology:** Kidney, gill, material from F1 to F4 and lesion material from F1, was inoculated onto appropriate media for the isolation of bacteria.

The following bacteria were isolated:

- Aeromonas salmonicida: Gill (F1 to F4), Kidney (F1 to F3), Lesion (F1)
- Aeromonas spp.: Gill (F1 to F4), Lesion (F1)
- Yersinia ruckeri: Kidney (F4)

The level and purity of growth from *Aeromonas salmonicida* would suggest that this bacterium is present as a primary pathogen and would be implicated in morbidity. From the tests conducted, we do not have evidence of resistance to amoxycillin, oxytetracycline, sulphamethoxazole/trimethoprim or florfenicol.

The level and purity of growth from *Aeromonas* spp. would suggest that it was present as a secondary pathogen.

The level and purity from *Yersinia ruckeri* would suggest that it would be implicated in morbidity of this fish, however it was not observed in F1 to F3.

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

Infectious pancreatic necrosis virus (IPNV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	-	-	-	-	Negative
F2	-	-	-	-	Negative
F3	-	-	-	-	Negative
F4	16.03	24.87	24.85	24.79	POSITIVE

Salmon gill poxvirus (SGPV)

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.00	36.98	37.73	37.31	POSITIVE
F2	-	-	-	-	Negative
F3	18.88	29.16	29.49	28.87	POSITIVE
F4	18.67	31.76	31.9	31.76	POSITIVE

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

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

Fish Number	Endogenous control Cp value	Cp Values			Reported Result (PCR)
F1	19.00	31.75	31.44	31.01	POSITIVE
F2	18.66	32.80	32.00	32.20	POSITIVE
F3	18.88	27.21	27.72	28.12	POSITIVE
F4	18.67	29.24	29.45	29.09	POSITIVE

Paranucleospora theridion

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 to F4. Eye tissue was taken from F3. The tissue samples were fixed in 10% neutral buffered formalin.

Histopathological examination revealed the following:

<u>Gill:</u> Lamellar hyperplasia and fusion, multifocal, (F1 & F2) with haemorrhage and foci of necrosis (F2). F3 & F4 displayed epithelial hyperplasia of individual lamellae. Several dense aggregates of Gram-negative rod-shape bacteria (F1 & F2). Some aneurysmal dilation/telangiectasia (F4). Free blood among gill filaments (F1).

<u>Skin & Muscle:</u> Small areas of white skeletal muscle haemorrhage (F1), foci of necrosis and inflammation (F3) and F2 exhibited an area of haemorrhage with few bacteria.

<u>Heart:</u> F1 displayed a massive thrombus with presence of high numbers of Gram-negative rodshape bacteria. F2 displayed several small areas with dense aggregates of Gram-negative rodshape bacteria and some fibre necrosis surrounding the aggregates. F2, F3 & F4 displayed mild epicarditis.

<u>Gut and pyloric caeca</u>: Some peritonitis observed in F2. F1, F2 & F3 displayed cell sloughing (potentially associated with post-mortem artefact), ranging from marked to mild.

Pancreas: Within the normal range.

<u>Liver:</u> F1 displayed small foci of hepatocellular necrosis and thrombi observed on the vessels, F2 also displayed hepatocellular necrosis with Gram-negative rod-shape bacteria mild, multifocal. Some hepatocellular vacuolation (macrovesicles), diffuse (F3). F4 displayed some cellular inflammatory infiltration.

<u>Kidney:</u> Interstitial cell (haematopoietic) granulomatous necrosis with few small aggregates of Gram-negative rod-shape bacteria (F1). F2 also exhibited interstitial necrosis with aggregates of Gram-negative rod-shape bacteria, mild, multifocal.

<u>Spleen:</u> Chronic inflammation with some evidence of necrosis (F1 & F2) with aggregates of Gramnegative rod-shape bacteria (F2).

Eve: F3 within normal range. F1, F2 & F4 Not sampled.

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: 18/07/2024

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 HEALTH INSPECTORATE VISIT REPORT

### SUMMARY FOR INFORMATION OF SITE OPERATOR

 BUSINESS NO
 FB0169

 SITE NO
 FS0336

 CASE NO
 20240181

9 5 81 DATE OF VISIT 12/06/2024 SITE NAME Druimyeon Bay

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

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

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

#### Records

The 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.

### 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, containment and escapes.

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

Signed:

Date: 19/06/2024

Fish Health Inspector

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## All sampled fish

























