BVD Control at Watergate Farm, North Yorkshire

Katherine Lumb (BVSc MSc MRCVS), Bishopton Veterinary Group, North Yorkshire

Watergate Farm, near Harrogate is a great example of a farm that has worked hard to eradicate BVD from their herd and are now seeing and feeling the benefits of being BVD free. The Baul family are milking a closed herd of just short of 200 pedigree Holsteins calving all year round and averaging just over 9,000 litres milk sold/cow/year. Over the last year calving interval has been as low as 402 days all cows are served by AI to mainly black and white sexed semen. The Baul's have developed a very good and respectable name in selling good quality freshly calved pedigree heifers, so loss of heifer calves and poor fertility has large financial implications for them. Because of this, they have been aware of the risks posed to their herd from BVD for many years and have been vaccinating for almost 20 years. Their long term control of BVD has also involved a close working relationship with their vets, Bishopton Veterinary Group, to include regular infectious disease monitoring through annual heifer cohort bleeds and regular bulk tank antibody and PCR testing. Through this joined up approach of regular monitoring and good control the herd has now managed to achieve BVD free accreditation, although not without enormous hard work and some undertaken at Watergate farm leading to this BVD free.

BVD had not been considered a current priority issue at Watergate Farm, with the high level of awareness and a seemingly thorough control programme in place. However, in the Autumn of 2011 the herd vet was asked to examine a poorly grown heifer with some respiratory disease and ulcerative mouth lesions. The relatively poor growth compared to its group mates and apparent immunosuppression immediately rang alarm bells that this animal may be persistently infected (PI) with BVDv. The heifer was confirmed through antigen identification to be a PI and was removed from the herd at the earliest opportunity to prevent any further shedding of the virus. The identification of a PI however raised two questions; 1) how had the control methods in place failed to identify this animal earlier and 2) how had the mother of this animal, in a closed herd, come into contact with virus at time during a pregnancy that would allow for this calf to be born a PI?

Although regular infectious disease surveillance was in place on the farm, at the time of examination this animal was 18 months of age. This meant that at the time of the young stock cohort bleed the previous year, it would have been too young due to the interference of maternally derived antibodies and so would not have been tested. Rel-

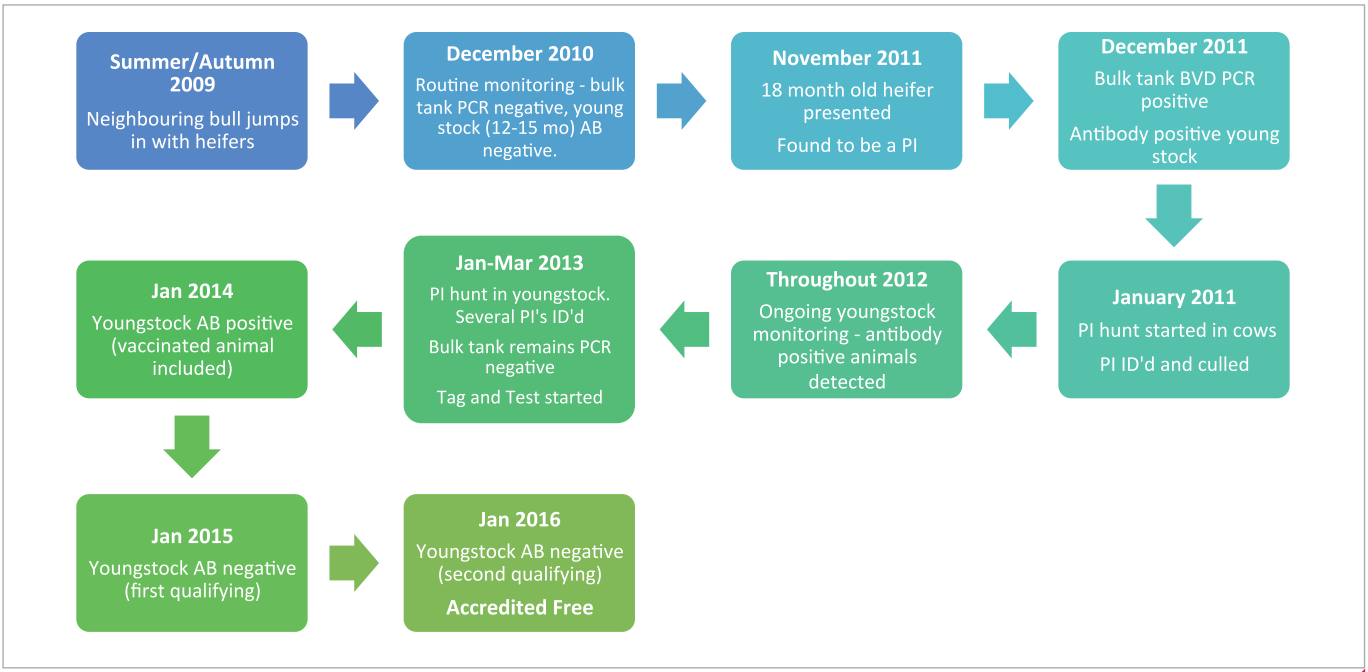


Figure 1. An overview of the events and processes leading to the granting of BVD free status at Watergate Farm

ying on a single annual young stock cohort screen poses a problem when used in all year round calving herds, as it can result in cohorts of calves not being tested if they are not genuinely managed as a single group with contact over a prolonged period of time. Combined with this issue it became apparent that although surveillance protocols were in place, due to the lack of previously perceived risk posed from BVD, there was a lack of consistency in the timing with which monitoring was performed.

As the herd vet investigated further into the history of this case, it transpired that although this was a completely closed herd, due to the nature of the density of cattle population in the local area, boundary control had been something that had been an ongoing issue at Watergate Farm. In the Winter of 2009, a group of heifers that had been presented at a routine pregnancy diagnosis session as they had not been seen in oestrus were found unexpectedly to be in calf. As normally all animals are served by AI to sexed Holstein semen, it became apparent that these animals must have been served by a beef bull that had got in with them that did not belong to the farm when the heifers were out grazing that summer. Unfortunately, all the pregnancies were too progressed to be able to abort them. Further investigation revealed that the heifers both served and in contact with the stray bull were potentially only partially vaccinated against BVD, due to some oversight in primary course timings. Further concerns were expressed as some of the younger animals in the group had not yet reached the age where they would usually have received both doses of the primary course. It was therefore concluded that the initially presented calf had been born to a young heifer that had come into contact with the stray bull, who was assumed to be carrying an active BVD infection. This heifer had developed a subsequent transient infection when she was grazing the summer of 2009, leading to the production of a PI calf. Whilst investigating the disease status of this animal, a routine bulk tank PCR test produced a positive result and a young stock cohort check test resulted with pre-vaccinated animals with positive antibody titres (Appendix 1).

At this point it became clear that further investigation and a review of control measures was required. There were evidently issues with stock broaching boundaries causing the Watergate herd to come into direct contact with animals of unknown disease status. Determining the extent of spread of infection within the herd was vital to ascertain the extent of spread of infection within the herd.

A 'PI hunt' was initiated at Watergate at the start of 2012, initially starting by investigating all milking cows, dry cows, in-calf and bulling heifers. To try and contain the costs associated with the investigation pooled milk BVD antigen PCR carried out on milking animals, due to the ease of sampling, and pooled blood samples were collected from pre-calved heifers. From these results, one of the pooled milk samples produced a positive results. This group of animals was subsequently individually blood tested with an antigen ELISA (Appendix 2) and a freshly calved heifer tested antigen positive. Her calf had been still born, therefore no further investigations were required along this maternal line. After discussion regarding confirmation testing to rule out possible transient infection, this heifer was removed from the herd. A comprehensive young stock bleed was suggested at this time but due to the logistics and concerns regarding cost vs. benefit, this was not performed at this time.

Alongside the 'PI hunt', a review of the vaccination protocols (Figure 2) was also carried out, and a strict vaccination protocol was re-implemented to ensure that all heifers had received a full primary vaccination course and that all stock received subsequent boosters within the correct time frame. The importance of boundary maintenance and contact with neighbouring stock was also emphasised and it was encouraging that Watergate Farm worked closely with their neighbours to try and ensure that adjoining pasture was not used concurrently to try to limit the risks of direct contact. Through 2012 the regularity of bulk tank antibody and antigen testing and young stock cohort bleeds was improved to prevent any animals being missed. The bulk tank results remained PCR negative, consistent with no further active infection within the adult milking herd. The young stock cohort bleeds however continued to product results that displayed antibody positive calves that had not previously been vaccinated, indicating ongoing exposure to BVD virus (Appendix 3).

The continued detection of these antibody positive animals indicated ongoing virus circulation and highlighted the importance of this ongoing monitoring. It was agreed that a further 'PI hunt' was necessary to identify and remove the source of the BVD challenge. If a PI animal remained in the herd then it would be essential to find and remove such an animal in order to have control of BVD. The regular PCR negative bulk tank results indicated that the adult milking cows were unlikely to be involved in the ongoing spread of infection. In January 2013 the second PI hunt was started and focussed on all in-calf and bulling heifers and all young stock. Pooled antigen testing was used which eliminated the risk of results being con-

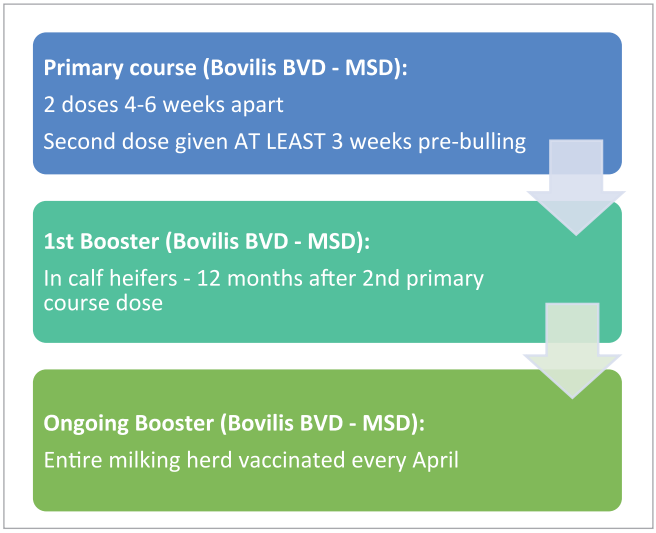


Figure 2. Reviewed vaccination protocol re-implemented at Watergate Farm

founded by maternally derived antibodies and so testing was done down to the youngest calf on the farm that day. From these results (Appendix 4) several bulling heifers and young stock tested positive for BVD antigen. As previously, all these identified animals were removed from the herd at the earliest possible opportunity.

By March 2013 all heifers and young stock had been tested and it was considered that there were no further PI animals on the farm at the time. It was however recognised that the risk period was not yet over as any of the cows that were in calf at that time could have potentially been exposed to the virus that had been shed from the PI animals and could have been carrying an undetectable PI animal. The importance of and speed of detecting any of these calves was well recognised to limit any potential spread within the herd. In April 2013 ear tissue tag and testing was introduced, so that all calves were tested more conveniently as soon as possible after birth. The tissue tag testing was continued until all the at-risk calves were born, none of which tested positive for BVD antigen (Appendix 5).

Ongoing bulk tank and young stock cohort bleeds had been continued during this time and had not shown any indication of active circulating infection. The Baul family recognised the huge impact that BVD could have on their herd and how important eradicating it had been. The ongoing disease surveillance as well as rigorous implementation of accurate vaccination timings and tight boundary control are now recognised by the family as vital in the long term protection of their BVD status.

As previously mentioned, part of the Watergate business model is the selling of good quality pedigree freshly calved heifers. Knowing the disease status of an animal anyone is buying into a herd is vital and so it was decided that in recognition of the hard work the Baul's had invested alongside their veterinary team that the herd would apply for official BVD free accreditation. To achieve this accreditation they had to achieve two completely clear young stock cohort bleeds at a 12 month interval as well as demonstrating all necessary biosecurity procedures were in place for ongoing protection of the herd. In January 2014 the first accreditation cohort was tested, but inadvertently including one animal that had already been vaccinated. The test was repeated in January 2015 when all animals tested negative and so they were awarded their first clear qualifying test. This was the repeated in January 2016 when again, all animals were negative (Appendix 6). At this point Watergate Farm was given its official accredited BVD free status. This has allowed them to now sell pedigree Holstein heifers at a premium as officially BVD free.

The importance of ongoing monitoring and rigorous control of BVD is vital at Watergate Farm to ensure that we prevent any further breakdowns. Ensuring that regular bulk tank and young stock infectious disease monitoring carried out is vital to ensure that if any virus were to enter the farm that it is identified quickly. This is evident from what has occurred historically on this farm where carrying out regular monitoring of adult and young stock allowed for proactive identification and investigation to allow for the rapid detection of active infection and implementation of appropriate control methods within the herd. Ensuring that the disease it completely eradicated initially is vital to limit the long term effects and costs associated with BVD.

On farm control remains a vital piece of the long term control strategy at Watergate Farm as well. Boundary control remains vital. They are a completely closed herd, so preventing introduction of the virus from either straying stock or through direct contact over boundaries is essential to ensure there is no direct route of introduction into the herd. The density of cattle stock in the area local to Watergate Farm however means that their vaccination protocols are still arguably the most important part of the ongoing control strategy on this farm. Due to the high risk situation that is created through direct boundaries with neighbouring stock, any delay in vaccination could potentially mean that naïve stock could come into direct contact with the virus, re-introducing it into the herd. The Baul family have recently started to use Bovela to vaccinate the pre-bulling heifers to ensure that there are no gaps in their vaccination protocols that could leave potentially naïve animals exposed. Ideally, we would lower the age at which the vaccine is initially given to ensure that all stock are covered from as young as possible, however due to the disease accreditation status that is in place on this farm, and the benefits they are receiving from selling heifers with this disease status, it is not possible at the moment to lower this age to less than 9 months old.

Gaining control and eventually eradicating BVD from Watergate Farm has been a long and relatively complex procedure. The Baul family have become committed to eradicating and maintaining their disease status and through this have achieved an excellent end result. Mr Baul has expressed how he feels that not only is he receiving the benefits of his accredited health status, but that the overall health status of his herd has improved, from cases of mastitis in adult cows to the cases of pneumonia and general health of the calves (Figure 3). He feels that this improvement means that the financial commitment that was required to eradicate the disease from his herd was well

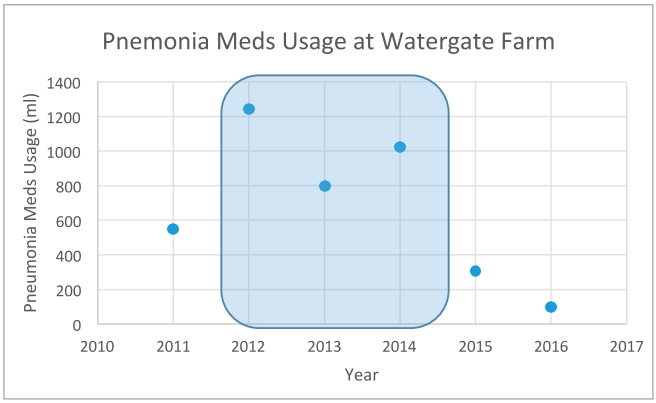


Figure 3. Pneumonia medicines usage from 2011-2016 as a reflection of cases of pneumonia treated. Shaded area represents time period when the greatest challenge from BVD was perceived

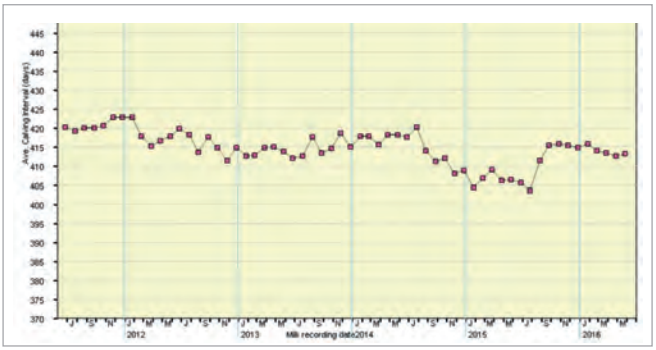


Figure 4. Average calving interval at Watergate Farm from 2011-2015 demonstrating improved fertility since BVD control was achieved

Photograph 1. The Baul family receiving the champion dairy award at Skipton Auction.

worth it. It is hoped that has the BVD England eradication scheme develops over the coming years, the premium Mr Baul is receiving for selling his heifers as accredited free from BVD will continue to improve.

Appendix 1.

SAC

LABORATORY REPORT
VETERINARY CENTRE MANAGER
Dr J R Thomson BVSc, PhD, MRCVS

SAC Veterinary Services
Bush Estate
Penicuik
EH26 0QE
Scotland UK

Tel: (0131) 535 3130
Fax: (0131) 535 3131

Practice: Bishopton Veterinary Group 100
Mill Farm
Studley Road
RIPON
HG4 2QR

Species: BOVINE
Breed: Not stated
Age: X X
Sex: UNKNOWN
Sample ID: 201440
Main Specimen Type: BLOOD

Submission reference: C018634
Date received: 02/12/2011
Last reported on: 15/12/2011
Status : FINAL
Previous Reference :

Clinician: J Statham
Your reference: Baul
Owner: Mis M Baul & Partners Watergate
Bishop Thornton Harrogate HG3 3JZ

TESTING SUMMARY

Determination:	BVDI	BVDIP	IBR-gB	IBRBP
Units:		S/N%		
Sample ID				
201440	Positive	9	n/a	n/a
201454	Positive	4	n/a	n/a
101474	Positive	27	n/a	n/a
501486	Negative	94	n/a	n/a
401484	Negative	77	n/a	n/a
101460	Negative	87	n/a	n/a
301462	Positive	16	Negative	8.000
301469	Negative	96	Negative	23.00

IBRV serology - both negative.

Interpretation of IBR Antibody ELISA Results (Blocking Percentage)

Positive : >55%

SAC

LABORATORY REPORT
VETERINARY CENTRE MANAGER

SAC
Veterinary Services
Drummondhill
Strathernick Road
Inverness
IV2 4JZ
Tel/Inverness (01463) 243000

Practice: BISHOPTON VET GROUP
MILL FARM
STUDLEY ROAD
RIPON
NORTH YORKSHIRE
HG4 2QR

Species: BOVINE
Breed: Not stated
Age: X X
Sex: FEMALE
Sample ID: BULK
Main Specimen Type: MILK

Submission reference: C639767
Date received: 20/12/2011
Last reported on: 05/01/2012
Status : FINAL
Previous Reference :

Clinician: R BUXTON
Your reference:
Owner: BAUL WATERGATE FARM BISHOP
THORNTON HARROGATE HG3 3JZ

TESTING SUMMARY

Determination	Result
§ Liver Fluke %SP	320 %SP
§ Liver Fluke Serology (Elisa)	Positive %
BVD PCR	positive

30/12

Interpretation of Bulk Milk BVD PCR Testing

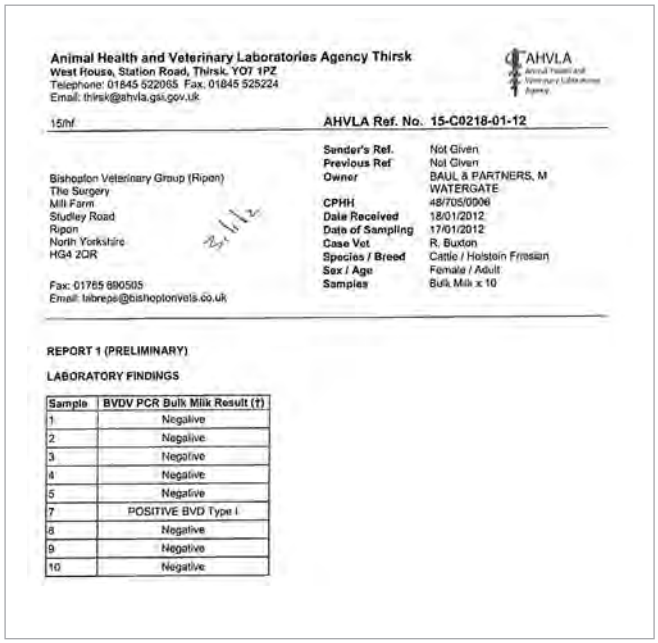
BVDV RNA has been detected by PCR.

This test can detect BVDV RNA in milk from one viraemic cow among up to 300 contributors. This test does NOT differentiate between acute and persistent infection and may detect BVD RNA for at least 30 days following an acute infection. It should be remembered that only lactating animals whose milk is entering the bulk tank will be screened (i.e. dry cows, cows under treatment, bulls will not be sampled by this method). A negative result is strongly suggestive that there is no viraemic animal in the milking herd.

Liver fluke serology to follow.

Reported by Franz Brulezauer

Appendix 2.



Animal Health and Veterinary Laboratories Agency Thirsk
West House, Station Road, Thirsk. YO7 1PZ
Telephone: 01845 522065 Fax: 01845 525224
Email: thirsk@ahvla.gsi.gov.uk

15/hf

AHVLA Ref. No. 15-C0218-01-12

Bishopton Veterinary Group (Ripon)
The Surgery
Mill Farm
Studley Road
Ripon
North Yorkshire
HG4 2QR

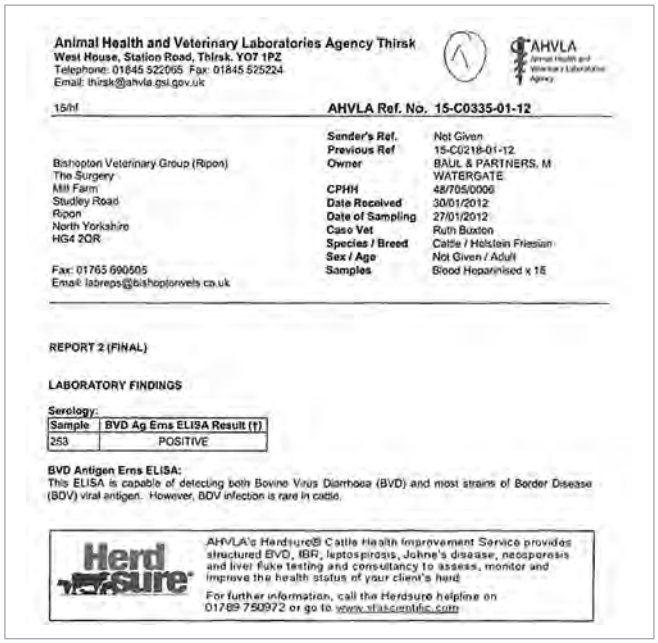
Fax: 01765 690505
Email: labreps@bishoptonvets.co.uk

Sender's Ref.	Not Given
Previous Ref	Not Given
Owner	BAUL & PARTNERS, M WATERGATE
CPHH	48/705/0006
Date Received	18/01/2012
Date of Sampling	17/01/2012
Case Vet	R. Buxton
Species / Breed	Cattle / Holstein Friesian
Sex / Age	Female / Adult
Samples	Bulk Milk x 10

REPORT 1 (PRELIMINARY)

LABORATORY FINDINGS

Sample	BVDV PCR Bulk Milk Result (†)
1	Negative
2	Negative
3	Negative
4	Negative
5	Negative
7	POSITIVE BVD Type I
8	Negative
9	Negative
10	Negative



Animal Health and Veterinary Laboratories Agency Thirsk
West House, Station Road, Thirsk. YO7 1PZ
Telephone: 01845 522065 Fax: 01845 525224
Email: thirsk@ahvla.gsi.gov.uk

15/hf

AHVLA Ref. No. 15-C0335-01-12

Bishopton Veterinary Group (Ripon)
The Surgery
Mill Farm
Studley Road
Ripon
North Yorkshire
HG4 2QR

Fax: 01765 690505
Email: labreps@bishoptonvets.co.uk

Sender's Ref.	Not Given
Previous Ref	15-C0218-01-12
Owner	BAUL & PARTNERS, M WATERGATE
CPHH	48/705/0006
Date Received	30/01/2012
Date of Sampling	27/01/2012
Case Vet	Ruth Buxton
Species / Breed	Cattle / Holstein Friesian
Sex / Age	Not Given / Adult
Samples	Blood Heparinised x 16

REPORT 2 (FINAL)

LABORATORY FINDINGS

Serology:

Sample	BVD Ag Ems ELISA Result (†)
253	POSITIVE

BVD Antigen Ems ELISA:
This ELISA is capable of detecting both Bovine Virus Diarrhoea (BVD) and most strains of Border Disease (BDV) viral antigen. However, BDV infection is rare in cattle.

Appendix 3.

SAC

LABORATORY REPORT
VETERINARY CENTRE MANAGER

SAC
Veterinary Services
Drummondhill
Stratherrick Road
Inverness
IV2 4JZ
Tel:Inverness (01463) 243030
Fax:Inverness (01463) 711103

Practice: BISHOPTON VET GROUP
MILL FARM
STUDLEY ROAD
RIPON
NORTH YORKSHIRE
HG4 2QR
Clinician: J STATHAM
Your reference:
Owner: BAUL WATERGATE FARM BISHOP THORNTON HARROGATE HG3 3JZ

Species: BOVINE
Breed: Not stated
Age: X X
Sex: FEMALE
Sample ID: BULK
Main Specimen Type: MILK

Submission reference: C641334
Date received: 02/05/2012
Last reported on: 08/05/2012
Status : FINAL
Previous Reference :

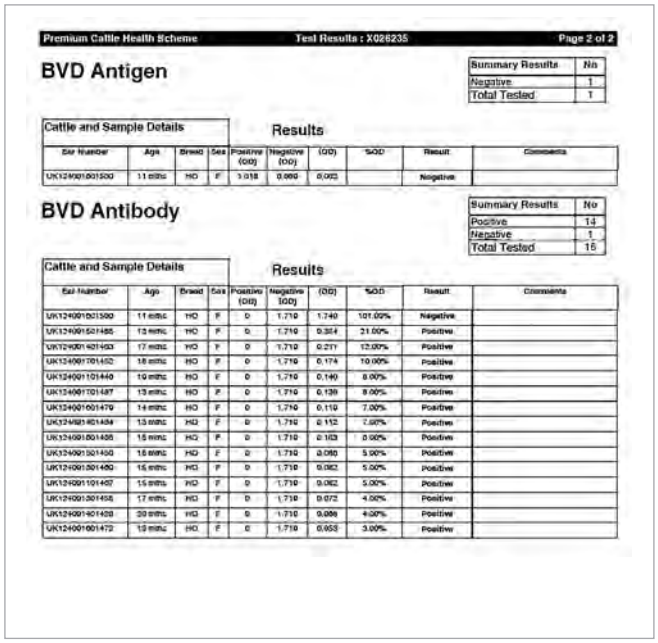
TESTING SUMMARY

Determination	Result
BVD PCR Milk	negative

Interpretation of Bulk Milk BVD PCR Testing

This test can detect BVDV RNA in milk from one viraemic cow among up to 300 contributors. This test does NOT differentiate between acute and persistent infection and may detect BVD RNA for at least 80 days following an acute infection. It should be remembered that only lactating animals whose milk is entering the bulk tank will be screened (i.e. dry cows, cows under treatment, bulls will not be sampled by this method). A negative result is strongly suggestive that there is no viraemic animal in the milking herd.

Reported by Mary-Jo Grant



Premium Cattle Health Scheme **Test Results : X026235** **Page 2 of 2**

BVD Antigen

Summary Results	No
Negative	1
Total Tested	1

Cattle and Sample Details — Results

Ear Number	Age	Breed	Sex	Positive (OD)	Negative (OD)	(OD)	%OD	Result	Comments
UK124001501500	11 mths	HO	F	1.018	0.000	0.002		Negative	

BVD Antibody

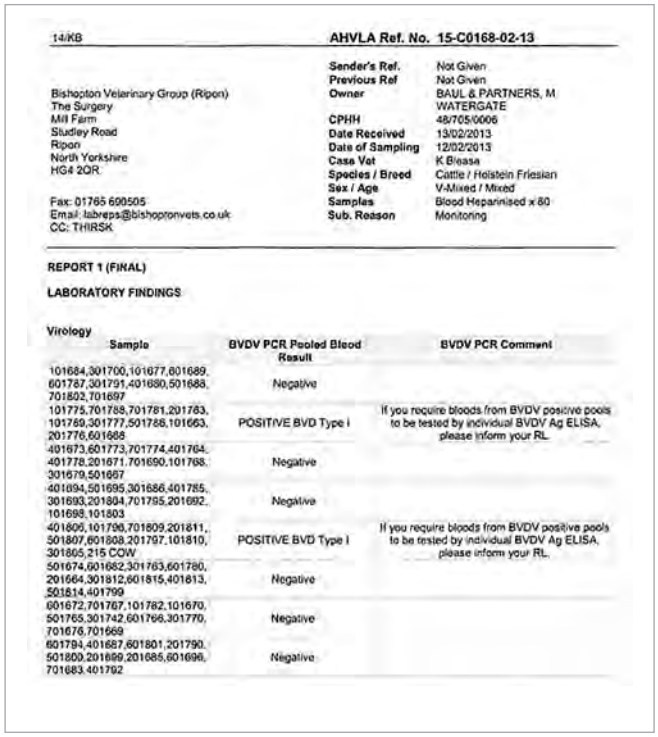
Summary Results	No
Positive	14
Negative	1
Total Tested	15

Cattle and Sample Details — Results

Ear Number	Age	Breed	Sex	Positive (OD)	Negative (OD)	(OD)	%OD	Result	Comments
UK124001501500	11 mths	HO	F	0	1.710	1.740	101.00%	Negative	
UK124001501485	13 mths	HO	F	0	1.710	0.364	21.00%	Positive	
UK124001501493	17 mths	HO	F	0	1.710	0.217	12.00%	Positive	
UK124001501402	18 mths	HO	F	0	1.710	0.174	10.00%	Positive	
UK124001501449	19 mths	HO	F	0	1.710	0.140	8.00%	Positive	
UK124001501487	13 mths	HO	F	0	1.710	0.139	8.00%	Positive	
UK124001501479	14 mths	HO	F	0	1.710	0.119	7.00%	Positive	
UK124001501484	13 mths	HO	F	0	1.710	0.112	7.00%	Positive	
UK124001501495	15 mths	HO	F	0	1.710	0.103	6.00%	Positive	
UK124001501490	16 mths	HO	F	0	1.710	0.086	5.00%	Positive	
UK124001501480	16 mths	HO	F	0	1.710	0.082	5.00%	Positive	
UK124001501497	15 mths	HO	F	0	1.710	0.082	5.00%	Positive	
UK124001501498	17 mths	HO	F	0	1.710	0.072	4.00%	Positive	
UK124001501499	20 mths	HO	F	0	1.710	0.066	4.00%	Positive	
UK124001501472	19 mths	HO	F	0	1.710	0.053	3.00%	Positive	

Appendix 4.

(Example results from second PI hunt. Full results can be provided if required)



14/KB

AHVLA Ref. No. 15-C0168-02-13

Bishopton Veterinary Group (Ripon)
The Surgery
Mill Farm
Studley Road
Ripon
North Yorkshire
HG4 2QR

Fax: 01765 690505
Email: labreps@bishoptonvets.co.uk
CC: THIRSK

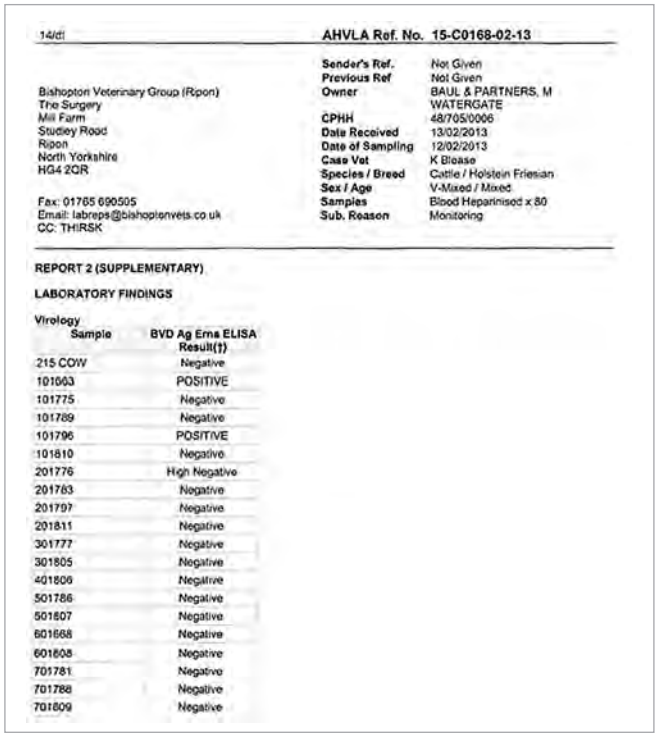
Sender's Ref.	Not Given
Previous Ref	Not Given
Owner	BAUL & PARTNERS, M WATERGATE
CPHH	48/705/0006
Date Received	13/02/2013
Date of Sampling	12/02/2013
Case Vet	K Blease
Species / Breed	Cattle / Holstein Friesian
Sex / Age	V-Mixed / Mixed
Samples	Blood Heparinised x 80
Sub. Reason	Monitoring

REPORT 1 (FINAL)

LABORATORY FINDINGS

Virology

Sample	BVDV PCR Pooled Blood Result	BVDV PCR Comment
101684,301700,101677,601689, 601787,301791,401680,501688, 701802,701697	Negative	
101775,701788,701781,201783, 101789,301777,501788,101663, 201776,601668	POSITIVE BVD Type I	If you require bloods from BVDV positive pools to be tested by individual BVDV Ag ELISA, please inform your RL.
401673,601773,701774,401764, 401778,201671,701690,101798, 301679,501697	Negative	
401694,501695,301686,401785, 301693,201804,701795,201692, 101698,101803	Negative	
401805,101796,701809,201811, 501807,601808,201797,101810, 301865,215 COW	POSITIVE BVD Type I	If you require bloods from BVDV positive pools to be tested by individual BVDV Ag ELISA, please inform your RL.
501674,601662,301763,601780, 201664,301812,601815,401813, 501814,401799	Negative	
601672,701767,101782,101670, 501765,301742,601766,301770, 701676,701669	Negative	
601794,401687,601801,201790, 501809,201699,201685,601696, 701683,401792	Negative	



14/dt

AHVLA Ref. No. 15-C0168-02-13

Bishopton Veterinary Group (Ripon)
The Surgery
Mill Farm
Studley Road
Ripon
North Yorkshire
HG4 2QR

Fax: 01765 690505
Email: labreps@bishoptonvets.co.uk
CC: THIRSK

Sender's Ref.	Not Given
Previous Ref	Not Given
Owner	BAUL & PARTNERS, M WATERGATE
CPHH	48/705/0006
Date Received	13/02/2013
Date of Sampling	12/02/2013
Case Vet	K Blease
Species / Breed	Cattle / Holstein Friesian
Sex / Age	V-Mixed / Mixed
Samples	Blood Heparinised x 80
Sub. Reason	Monitoring

REPORT 2 (SUPPLEMENTARY)

LABORATORY FINDINGS

Virology

Sample	BVD Ag Ems ELISA Result(†)
215 COW	Negative
101663	POSITIVE
101775	Negative
101789	Negative
101796	POSITIVE
101810	Negative
201776	High Negative
201783	Negative
201797	Negative
201811	Negative
301777	Negative
301805	Negative
401806	Negative
501786	Negative
501807	Negative
601668	Negative
601808	Negative
701781	Negative
701788	Negative
701809	Negative

Appendix 5.

(Example of one set of tissue tag results. More results can be provided if required)

NML HEALTHCHECK

NML national milk laboratories

HEALTHCHECK

Customer: M Baul & Partners
Address: Watergate Farm, Bishop Thornton, Harrogate, HG3 3JZ
Phone:
Email:

Total Pages: 1
Report Date: 22/04/2013
NMR Herd No.: 02/74606/01
Batch No.: 1604131177
Certificate No.: 160413117720134229332B
Location: Hillington
Authorised by: Eleanor Johnston, Laboratory Manager

NML HEALTHCHECK RESULTS

(INDIVIDUAL COW SAMPLES)

Table 1: Results For The Detection Of BVDv Antigen In Individual Cow Ear Tissue.

Analysis Methodology: Detection of BVDv antigens using commercial ELISA test kit.

SAMPLE ID	SAMPLE DATE	BVDvAG †	
		S-N	Category
UK 124091 401848 V 2091	27/03/2013	0	Negative
UK 124091 501849 V 2091	27/03/2013	0.02	Negative
UK 124091 601850 V 2091	12/04/2013	0.01	Negative
UK 124091 701851 V 2092	12/04/2013	0.02	Negative
UK 124091 702026 V 2091	27/03/2013	0.01	Negative
UK 124091 102027 V 2091	27/03/2013	0.03	Negative
UK 124091 202028 V 2091	27/03/2013	0.03	Negative
UK 124091 302029 V 2091	12/04/2013	0	Negative
UK 124091 402030 V 2091	12/04/2013	0.01	Negative
UK 124091 502031 V 2093	12/04/2013	0	Negative

Comments:

† Indicates the tests are within the NML scope of UKAS accreditation.

* These results indicate the disease status of 'Ear Tissue' samples tested at the laboratory & taken on the date specified above

We recommend that you analyse the results below in consultation with your veterinary surgeon, to whom a copy of this letter has been sent.

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National Milk Laboratories Ltd . 32 Kelvin Avenue . Hillington Park . Glasgow . G52 4LT
Tel: 0870 1622547 . Fax: 01902 749938 . www.nationalmilklaboratories.co.uk

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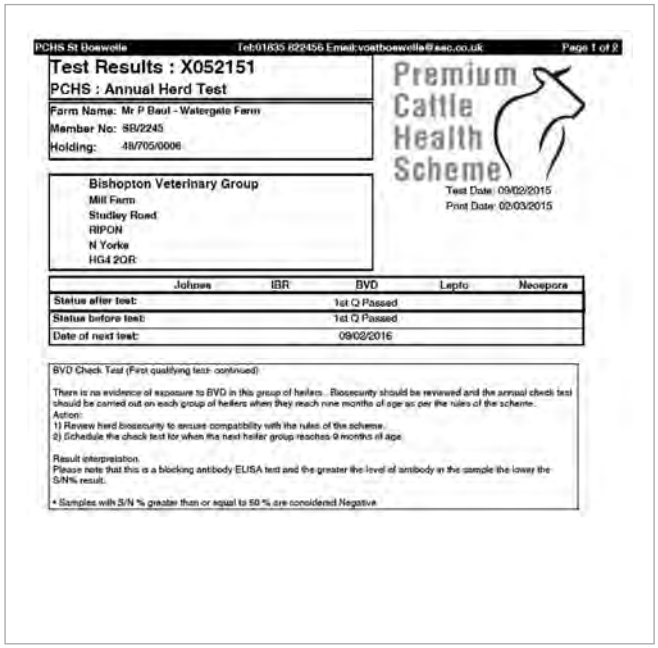
Appendix 6.



PCHS St Boswells Tel:01835 822456 Email:vcstboswells@sac.co.uk Page 1 of 2

Test Results : X052151

PCHS : Annual Herd Test

Farm Name: Mr P Baul - Watergate Farm
Member No: SB/2245
Holding: 48/705/0006

Premium Cattle Health Scheme

Test Date: 09/02/2015
Print Date: 02/03/2015

Bishopton Veterinary Group
Mill Farm
Studley Road
RIPON
N Yorks
HG4 2QR

	Johnes	IBR	BVD	Lepto	Neospora
Status after test:			1st Q Passed		
Status before test:			1st Q Passed		
Date of next test:			09/02/2016		

BVD Check Test (First qualifying test- continued)

There is no evidence of exposure to BVD in this group of heifers. Biosecurity should be reviewed and the annual check test should be carried out on each group of heifers when they reach nine months of age as per the rules of the scheme.
Action:
1) Review herd biosecurity to ensure compatibility with the rules of the scheme.
2) Schedule the check test for when the next heifer group reaches 9 months of age.

Result interpretation.
Please note that this is a blocking antibody ELISA test and the greater the level of antibody in the sample the lower the S/N% result.

• Samples with S/N % greater than or equal to 50 % are considered Negative

PCHS St Boswells Tel:01835 822456 Email:vcstboswells@sac.co.uk Page 1 of 2

Test Results : X065778

PCHS : 1st Herd Part Test

Farm Name: Mr P Baul - Watergate Farm
Member No: SB/2245
Holding: 48/705/0006

Premium Cattle Health Scheme

Test Date: 13/01/2016
Print Date: 18/01/2016

Bishopton Veterinary Group
Mill Farm
Studley Road
RIPON
North Yorkshire
HG4 2QR

	Johnes	IBR	BVD	Lepto	Neospora
Status after test:			Accredited		
Status before test:			1st Q Passed		
Date of next test:			13/01/2017		

BVD Check Test (Second qualifying test)

All animals tested negative for antibody to BVD. The herd has achieved BVD accredited status. Certificates will be posted as soon as they have been produced.

Action:
1) Review herd biosecurity
2) Carry out annual check test on the next calf crop once they reach 9 months of age.

Result interpretation.
Please note that this is a blocking antibody ELISA test and the greater the level of antibody in the sample the lower the S/N% result.

• Samples with S/N % greater than or equal to 50 % are considered Negative

Guidance for year-round calving 'negative' herds

In dairy herds that calve all year round it can be difficult to ensure that the heifer groups are surveyed properly. To ensure that exposure is detected in these herds more animals must be sampled more frequently. The following sampling frame addresses this important difference. It remains important to ensure that each successive group of heifers is sampled. Blood sample no less than 10 animals between the age of 9-18 months per separate group twice per year (no more than a seven month interval between test dates). Sampling the five oldest and five youngest within this age frame in each group should be carried out whilst ensuring that animals are sampled before they are vaccinated.

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Boehringer
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