

# FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

## FMDV Genotyping Report

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**Downloaded on:** 10 February 2026

**Citation:** WRLFMD. 2026. FMDV Genotyping Report [WRLMEG/2026/000005]. (Accessed 10/02/26)

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**FMDV serotype:** SAT1

**Country:** Botswana

**Year:** 2026

**Batch:** WRLMEG/2026/000005

**No. of sequences:** 5

**Reported date:** 10 February 2026

**WRLFMD Website:** <https://www.wrlfmd.org/>

**Email:** [reporting@pirbright.ac.uk](mailto:reporting@pirbright.ac.uk)

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FMDtype is supported through funding from

# Virus sample: BOT01/2026

## Sample details

Reception Date:	2026-02-09
Sender reference:	BOT01/2026
Location of origin:	North-East District
Country of origin:	Botswana
Date of collection:	NA
Host species:	bovine

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
19041	ZIM/13/2003		88.60	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.60	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.60	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.60	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.60	0	SAT1	III	None	None
19126	ZIM/4/2003		88.60	0	SAT1	III	None	None
19145	ZIM/5/2003		88.45	0	SAT1	III	None	None
19199	ZIM/P1/2004_D19	Cattle	88.15	2	SAT1	III	None	None
19460	ZIM/P9/94_HWANGE-6	African Buffalo	88.15	0	SAT1	III	None	None
19200	ZIM/P1/2004_E45	Cattle	87.84	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	83.94	0	SAT1	III	None	None
3177	BEC/1/48	Cattle	83.41	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	77.07	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None
13400	RHO/5/66	Cattle	74.53	0	SAT1	II	None	None

\* see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

# Virus sample: BOT02/2026

## Sample details

Reception Date:	2026-02-09
Sender reference:	BOT02/2026
Location of origin:	North-East District
Country of origin:	Botswana
Date of collection:	NA
Host species:	bovine

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
19041	ZIM/13/2003		88.45	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.45	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.45	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.45	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.45	0	SAT1	III	None	None
19126	ZIM/4/2003		88.45	0	SAT1	III	None	None
19145	ZIM/5/2003		88.30	0	SAT1	III	None	None
19199	ZIM/P1/2004_D19	Cattle	87.99	2	SAT1	III	None	None
19460	ZIM/P9/94_HWANGE-6	African Buffalo	87.99	0	SAT1	III	None	None
19200	ZIM/P1/2004_E45	Cattle	87.69	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	84.09	0	SAT1	III	None	None
3177	BEC/1/48	Cattle	83.26	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	76.92	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.45	0	SAT1	I	None	None
13400	RHO/5/66	Cattle	74.37	0	SAT1	II	None	None

\* see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

# Virus sample: BOT03/2026

## Sample details

Reception Date:	2026-02-09
Sender reference:	BOT03/2026
Location of origin:	North-East District
Country of origin:	Botswana
Date of collection:	NA
Host species:	bovine

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
19041	ZIM/13/2003		88.60	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.60	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.60	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.60	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.60	0	SAT1	III	None	None
19126	ZIM/4/2003		88.60	0	SAT1	III	None	None
19145	ZIM/5/2003		88.45	0	SAT1	III	None	None
19199	ZIM/P1/2004_D19	Cattle	88.15	2	SAT1	III	None	None
19460	ZIM/P9/94_HWANGE-6	African Buffalo	88.15	0	SAT1	III	None	None
19200	ZIM/P1/2004_E45	Cattle	87.84	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	83.94	0	SAT1	III	None	None
3177	BEC/1/48	Cattle	83.41	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	77.07	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None
13400	RHO/5/66	Cattle	74.53	0	SAT1	II	None	None

\* see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

# Virus sample: BOT04/2026

## Sample details

Reception Date:	2026-02-09
Sender reference:	BOT04/2026
Location of origin:	North-East District
Country of origin:	Botswana
Date of collection:	NA
Host species:	bovine

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
19041	ZIM/13/2003		88.75	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.75	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.75	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.75	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.75	0	SAT1	III	None	None
19126	ZIM/4/2003		88.75	0	SAT1	III	None	None
19145	ZIM/5/2003		88.60	0	SAT1	III	None	None
19199	ZIM/P1/2004_D19	Cattle	88.30	2	SAT1	III	None	None
19460	ZIM/P9/94_HWANGE-6	African Buffalo	88.30	0	SAT1	III	None	None
19200	ZIM/P1/2004_E45	Cattle	87.99	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	83.92	0	SAT1	III	None	None
3177	BEC/1/48	Cattle	83.56	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	77.07	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None
13400	RHO/5/66	Cattle	74.65	0	SAT1	II	None	None

\* see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

# Virus sample: BOT05/2026

## Sample details

Reception Date:	2026-02-09
Sender reference:	BOT05/2026
Location of origin:	North-East District
Country of origin:	Botswana
Date of collection:	NA
Host species:	bovine

## Genotyping details

Serotype:	SAT1
Topotype:	III
Lineage:	None
Sublineage:	None

## Sequencing details

Material submitted for sequencing:	NA
Material Harvest Date:	NA
Sequence length:	657
Ambiguities:	0

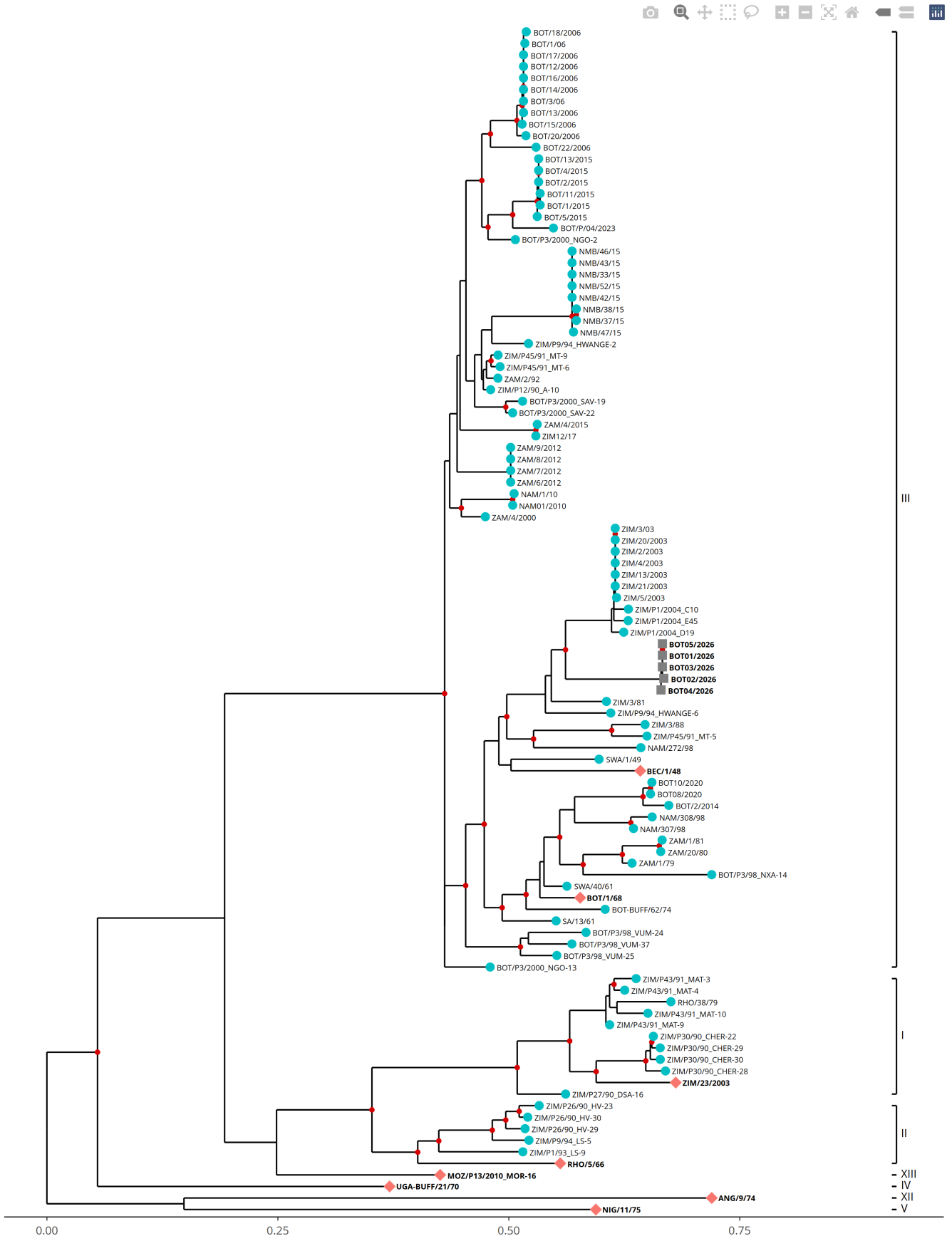
## Most Closely Related FMDV Isolates

Sequence ID	Virus Name	Host	% Id	#Ambig.	Serotype	Topotype	Lineage	Sublineage
<b>FMDV VP1 Sequences</b>								
19041	ZIM/13/2003		88.60	0	SAT1	III	None	None
19071	ZIM/2/2003	Bovine	88.60	0	SAT1	III	None	None
19085	ZIM/20/2003	Cattle	88.60	0	SAT1	III	None	None
19088	ZIM/21/2003	Cattle	88.60	0	SAT1	III	None	None
19104	ZIM/3/03	Cattle	88.60	0	SAT1	III	None	None
19126	ZIM/4/2003		88.60	0	SAT1	III	None	None
19145	ZIM/5/2003		88.45	0	SAT1	III	None	None
19199	ZIM/P1/2004_D19	Cattle	88.15	2	SAT1	III	None	None
19460	ZIM/P9/94_HWANGE-6	African Buffalo	88.15	0	SAT1	III	None	None
19200	ZIM/P1/2004_E45	Cattle	87.84	0	SAT1	III	None	None
<b>FMDV VP1 Prototype Sequences*</b>								
3410	BOT/1/68	Cattle	83.94	0	SAT1	III	None	None
3177	BEC/1/48	Cattle	83.41	0	SAT1	III	None	None
11174	MOZ/P13/2010_MOR-16	African Buffalo	77.07	0	SAT1	XIII	None	None
19096	ZIM/23/2003	African Buffalo	75.60	0	SAT1	I	None	None
13400	RHO/5/66	Cattle	74.53	0	SAT1	II	None	None

\* see <http://www.wrlfmd.org/fmdv-genome/fmd-prototype-strains>

# Tree

■ Uploaded sequence ● Database sequence ◆ Reference sequence



# Analysis Parameters

**Query sequence set:** WRLMEG/2026/000005  
**Number of related sequences reported:** 90  
**Number of prototype sequences in tree:** 8  
**Minimal VP1 subsequence match length:** 610  
**Sequence alignment length:** 669

**Number of sequences in tree capped at:** 100  
**Sequence alignment method:** MAFFT 7.522  
**Phylogeny reconstruction method:** IQ-TREE 2.26  
**Number of bootstrap samples:** 1000  
**Displaying bootstrap values above:** 75

## FMDV VP1 Sequences included in the Phylogenetic Tree

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
NAM/1/10 *	KJ999923	Cattle	OVI	Namibia	SAT1/III	None
NAM/272/98 *	KJ999921	African Buffalo	OVI	Namibia	SAT1/III	None
NAM/307/98 *	AY770519	African Buffalo	OVI	Namibia	SAT1/III	17161881
NAM/308/98 *	KJ999922	African Buffalo	OVI	Namibia	SAT1/III	None
NAM01/2010 *	KU821590	Cattle	CODA-CERVA	Namibia	SAT1/III	27151795
NMB/33/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/37/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/38/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/42/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/43/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/46/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/47/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
NMB/52/15 *	None	Cattle	BVI	Namibia	SAT1/III	None
RHO/38/79	None	Cattle	WRLFMD	Rhodesia	SAT1/I	None
SA/13/61 *	AY593842	Cattle	PIADC	South Africa	SAT1/III	15858032
SWA/1/49 *	AY593840		PIADC	South West Africa	SAT1/III	15858032
SWA/40/61 *	AY593843		PIADC	South West Africa	SAT1/III	15858032
ZAM/1/79	None		WRLFMD	Zambia	SAT1/III	None
ZAM/1/81	None	Cattle	WRLFMD	Zambia	SAT1/III	None
ZAM/20/80	None	Cattle	WRLFMD	Zambia	SAT1/III	None
ZAM/4/2000	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/6/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/7/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/8/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZAM/9/2012	None	Bovine	WRLFMD	Zambia	SAT1/III	None
ZIM/13/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/2/2003	None	Bovine	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/20/2003	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/21/2003	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/3/03 *	KJ999926	Cattle	OVI	Zimbabwe	SAT1/III	None
ZIM/3/81	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/3/88	MT385529	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/4/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/5/2003	None		WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_C10	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_D19	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/2004_E45	None	Cattle	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P1/93_LS-9	MT385600	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P12/90_A-10	MT385532	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P26/90_HV-23	MT385536	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-29	MT385541	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P26/90_HV-30	MT385542	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM/P27/90_DSA-16	MT385545	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-22	MT385559	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-28	MT385562	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-29	MT385563	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P30/90_CHER-30	MT385564	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-10	MT385592	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-3	MT385588	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-4	MT385589	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P43/91_MAT-9	MT385591	African Buffalo	WRLFMD	Zimbabwe	SAT1/I	None
ZIM/P45/91_MT-5	MT385594	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P45/91_MT-6	MT385595	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P45/91_MT-9	MT385596	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P9/94_HWANGE-2	MT385604	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P9/94_HWANGE-6	MT385605	African Buffalo	WRLFMD	Zimbabwe	SAT1/III	None
ZIM/P9/94_LS-5	MT385606	African Buffalo	WRLFMD	Zimbabwe	SAT1/II	None
ZIM12/17 *	None	Bovine	BVI	Zimbabwe	SAT1/III	None
ZAM/4/2015	None	Cattle	WRLFMD	Zambia	SAT1/III	None
ZAM/2/92	None	Bovine	WRLFMD	Zambia	SAT1/III	None
BOT/1/06 *	KJ999919	Cattle	OVI	Botswana	SAT1/III	None
BOT/1/2015	None	Bovine	WRLFMD	Botswana	SAT1/III	None

## FMDV VP1 Sequences included in the Phylogenetic Tree (continued)

Sequence Name	GenBank Accession	Host	Ref Lab	Country	FMDV Taxonomy	Pubmed Reference Number
BOT/11/2015 *	None	Cattle	BVI	Botswana	SAT1/III	None
BOT/12/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/13/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/13/2015 *	None	Cattle	BVI	Botswana	SAT1/III	None
BOT/14/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/15/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/16/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/17/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/18/2006	None	Cattle	WRLFMD	Botswana	SAT1/III	None
BOT/2/2014	None	Bovine	WRLFMD	Botswana	SAT1/III	None
BOT/2/2015	None	Bovine	WRLFMD	Botswana	SAT1/III	None
BOT/20/2006	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/22/2006	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/3/06 *	KJ999920	Cattle	OVI	Botswana	SAT1/III	None
BOT/4/2015	None	Bovine	WRLFMD	Botswana	SAT1/III	None
BOT/5/2015	None	Bovine	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_NGO-13	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_NGO-2	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_SAV-19	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/2000_SAV-22	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_NXA-14	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_VUM-24	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_VUM-25	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT/P3/98_VUM-37	None	African Buffalo	WRLFMD	Botswana	SAT1/III	None
BOT08/2020 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT10/2020 *	None	Bovine	BVI	Botswana	SAT1/III	None
BOT-BUFF/62/74	MH053319	African Buffalo	WRLFMD	Botswana	SAT1/III	29652800
BOT/P/04/2023 *	None	African Buffalo	BVI	Botswana	SAT1/III	None

\* Not a WRLFMD Reference Number;

^ Not Available

**From:** [Donald King](#)  
**To:** [Kelly Mokgele](#); [Nick Knowles](#); [Elliot M. Fana \(emfana@gmail.com\)](#)  
**Cc:** [Kelly Masoba](#); [Antonello Di Nardo](#); [Reference Laboratories Reporting](#)  
**Subject:** RE: [EXTERNAL] REQUEST FOR PHYLOGENETIC REPORT  
**Date:** 11 February 2026 13:00:25  
**Attachments:** [image001.png](#)  
[WRLMEG-2026-000005-BOT-SAT1.pdf](#)

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Dear Kelly

Attached is a Genotyping Report that covers the five VP1 sequences from FMD outbreaks in Botswana that you recently submitted to the WRLFMD.

Do we have your permission to send this report on your behalf to FAO and WOA?H?

Kind regards

Don

---

**From:** Kelly Mokgele <kellyrati@gmail.com>  
**Sent:** 11 February 2026 12:55  
**To:** Nick Knowles <nick.knowles@pirbright.ac.uk>  
**Cc:** Kelly Masoba <kmasoba@bvi.co.bw>; Donald King <donald.king@pirbright.ac.uk>; Antonello Di Nardo <antonello.dinardo@pirbright.ac.uk>  
**Subject:** Re: [EXTERNAL] REQUEST FOR PHYLOGENETIC REPORT

Good day Nick,

Thank you for your email.

The Eswatini samples were a bit difficult to work with, even on my side.

You can go ahead and generate any reports that you can manage, and also any advice on what I can do to get better sequences next time will be appreciated.

Thank you

Regards,

Kelly

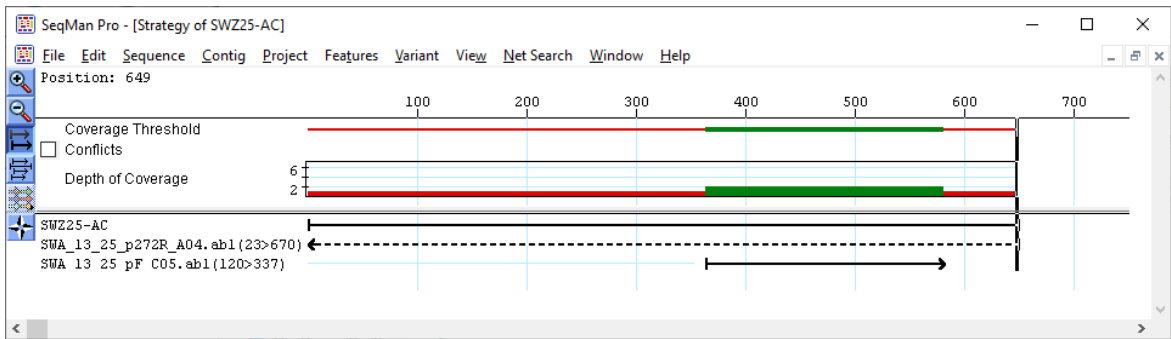
On Wed, Feb 11, 2026 at 2:14 PM Nick Knowles <[nick.knowles@pirbright.ac.uk](mailto:nick.knowles@pirbright.ac.uk)> wrote:

Dear Kelly,

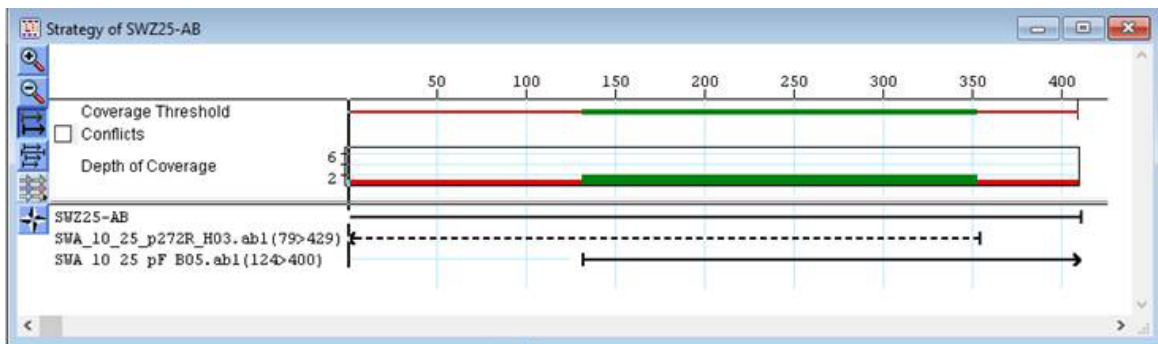
I have processed the Botswana SAT1 sequences you sent, which were very good. I have attached the assembled sequences in a FASTA text file. Don will send you the official genotyping report.

The Eswatini sequences have proved more problematic.

SAT2/SWA13/2024: The assembled sequence is ok, but forward coverage is incomplete since a VP1 internal primer (SAT-1D209F) was used for sequencing:



SAT2/SWA10/2024: The PCR primers used for this virus were SAT-1D209F & SAT-2B208R leading to a partial VP1 product. Coverage on both strands is also incomplete.



SAT1/SWA18/2024: The reverse primer gave a complete SAT1 VP1 sequence, but the forward sequencing primer (SAT-1D209F) gave a partial SAT2 sequence!

This could either mean the sample contained a mixture of the two serotypes or that there was a mix-up with the sequencing reactions. This SAT2 sequence was identical to those of SAT2/SWA13/2024 and SAT2/SWA10/2024.

I can produce genotyping reports on the full VP1 sequences of SAT2/SWA13/2024 and SAT1/SWA18/2024, but I will wait to hear from you in case you have any explanation/updates.

By the way, we will use our country code for Eswatini (SWZ) as SWA is the old code for South West Africa and may cause confusion.

Hope to hear from you soon.

Regards,

Nick

**Nick Knowles MPhil**

Senior Advisor: Molecular Epidemiology

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**From:** Kelly Masoba <[kmasoba@bvi.co.bw](mailto:kmasoba@bvi.co.bw)>  
**Sent:** 10 February 2026 06:09  
**To:** Nick Knowles <[nick.knowles@pirbright.ac.uk](mailto:nick.knowles@pirbright.ac.uk)>  
**Cc:** Donald King <[donald.king@pirbright.ac.uk](mailto:donald.king@pirbright.ac.uk)>; Kelly Mokgele <[kellyrati@gmail.com](mailto:kellyrati@gmail.com)>  
**Subject:** Re: [EXTERNAL] REQUEST FOR PHYLOGENETIC REPORT

Good morning Nick,

Thank you for your response.

I apologise for the mishap, the last entry on the table is for SWA18/2026, typing error  
I have herein submitted the AB1 files for SWA10/2026.

Thank you

Regards,

Kelly

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**From:** Nick Knowles <[nick.knowles@pirbright.ac.uk](mailto:nick.knowles@pirbright.ac.uk)>  
**Sent:** 09 February 2026 18:20  
**To:** Kelly Masoba <[kmasoba@bvi.co.bw](mailto:kmasoba@bvi.co.bw)>  
**Cc:** Donald King <[donald.king@pirbright.ac.uk](mailto:donald.king@pirbright.ac.uk)>; Kelly Mokgele <[kellyrati@gmail.com](mailto:kellyrati@gmail.com)>  
**Subject:** RE: [EXTERNAL] REQUEST FOR PHYLOGENETIC REPORT

Dear Kelly,

Thanks for sending the sequences, however, there were only two Eswatini sequences (SAT2/SWA13/2025 and SAT1/SWA18/2025), while the Word file listed three (SAT2/SWA10/2025, SAT2/SWA13/2025 and SAT1/SWA15/2025). So, the Word file didn't have data for SAT1/SWA18/2025.

Could you please send the sequences for SAT2/SWA10/2025 and SAT1/SWA15/2025 and the info for SAT1/SWA18/2025, if you wish us to include it as a fourth Eswatini sequence.

Best regards,

Nick

**Nick Knowles MPhil**

Senior Advisor: Molecular Epidemiology

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**From:** Kelly Masoba <[kmasoba@bvi.co.bw](mailto:kmasoba@bvi.co.bw)>

**Sent:** 09 February 2026 15:45

**To:** Nick Knowles <[nick.knowles@pirbright.ac.uk](mailto:nick.knowles@pirbright.ac.uk)>

**Cc:** Donald King <[donald.king@pirbright.ac.uk](mailto:donald.king@pirbright.ac.uk)>; Kelly Mokgele <[kellyrati@gmail.com](mailto:kellyrati@gmail.com)>

**Subject:** [EXTERNAL] REQUEST FOR PHYLOGENETIC REPORT

Good day Nick,

Kindly receive the attached AB1 files and the information of the samples. Please assist us with the genotyping report for the following samples

Where F = forward primer and R is the reverse primer

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