

Serotype: O  
WRL Ref No: YEM/22/2003  
Date collected: 27/10/2003  
Date received: 17/09/2004  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: O-1C272F/NK61  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 27/10/2004  
Topotype: EA-3 (proposed new topotype)  
Genotype/strain: none defined  
Sequence filename: YEM03-22.SEQ  
Date sequence last updated: 20/10/2004  
Total no. of comparisons: 1517

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2003	YEM03-28	639	637	0	99.69	0.31
2	O/YEM/1/2004	YEM04-01	639	636	0	99.53	0.47
3	O/YEM/48/2004	YEM04-48	638	631	1	98.9	1.1
4	O/KEN/1/99	KEN99-01	257	251	3	97.67	2.33
5	O/KEN/6/99	KEN99-06	251	243	3	96.81	3.19
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/YEM/4/95	YEM95-04	342	320	3	93.57	6.43
8	O/SAU/69/93	SAU93-69	143	133	6	93.01	6.99
9	O/SAU/31/92	SAU92-31	159	146	6	91.82	8.18
10	O/ETH/8/94	ETH94-08	584	536	4	91.78	8.22

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/53/79	IND79A53	639	553	0	86.54	13.46
2	O/TAW/2/99	TAW99-02	639	550	0	86.07	13.93
3	O/IND/R2/75*	IND75--A	639	548	0	85.76	14.24
4	O1/Manisa/TUR/69	TUR69--E	639	547	0	85.6	14.4
5	O/ISR/2/88	ISR88-02	639	543	0	84.98	15.02
6	O/TAI/189/87*	TAI87-AC	639	535	0	83.72	16.28
7	O/MOR/1/91	MOR91-01	207	171	3	82.61	17.39
8	O1/BFS 1860/UK/67	UKG67--A	639	509	0	79.66	20.34
9	O/HKN/6/83	HKN83-06	637	506	2	79.43	20.57
10	O/PHI/5/95	PHI95-05	639	499	0	78.09	21.91

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O  
WRL Ref No: YEM/28/2003  
Date collected: 27/10/2003  
Date received: 17/09/2004  
Species: Cattle  
Material used: BTy2  
Region sequenced: VP1  
RT-PCR primers: O-1C272F/NK61  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 27/10/2004  
Topotype: EA-3 (proposed new topotype)  
Genotype/strain: none defined  
Sequence filename: YEM03-28.SEQ  
Date sequence last updated: 20/10/2004  
Total no. of comparisons: 1517

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/22/2003	YEM03-22	639	637	0	99.69	0.31
2	O/YEM/1/2004	YEM04-01	639	636	0	99.53	0.47
3	O/YEM/48/2004	YEM04-48	638	631	1	98.9	1.1
4	O/KEN/1/99	KEN99-01	257	251	3	97.67	2.33
5	O/KEN/6/99	KEN99-06	251	243	3	96.81	3.19
6	O/YEM/4/95	YEM95-04	342	319	3	93.27	6.73
7	O/ETH/16/90	ETH90-16	161	150	4	93.17	6.83
8	O/SAU/69/93	SAU93-69	143	132	6	92.31	7.69
9	O/SAU/31/92	SAU92-31	159	146	6	91.82	8.18
10	O/ETH/8/94	ETH94-08	584	536	4	91.78	8.22

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/53/79	IND79A53	639	552	0	86.38	13.62
2	O/TAW/2/99	TAW99-02	639	551	0	86.23	13.77
3	O1/Manisa/TUR/69	TUR69--E	639	548	0	85.76	14.24
4	O/IND/R2/75*	IND75--A	639	547	0	85.6	14.4
5	O/ISR/2/88	ISR88-02	639	542	0	84.82	15.18
6	O/TAI/189/87*	TAI87-AC	639	536	0	83.88	16.12
7	O/MOR/1/91	MOR91-01	207	170	3	82.13	17.87
8	O1/BFS 1860/UK/67	UKG67--A	639	508	0	79.5	20.5
9	O/HKN/6/83	HKN83-06	637	505	2	79.28	20.72
10	O/PHI/5/95	PHI95-05	639	498	0	77.93	22.07

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 27/10/2004
WRL Ref No: YEM/1/2004	
Date collected: 04/01/2004	
Date received: 17/09/2004	
Species: Cattle	Topotype: EA-3 (proposed new topotype)
Material used: BTy1	Genotype/strain: none defined
Region sequenced: VP1	Sequence filename: YEM04-01.SEQ
RT-PCR primers: O-1C272F/NK61	Date sequence last updated: 20/10/2004
No. of Nt determined: 639	Total no. of comparisons: 1517
No. of ambiguities: 0	
Gene length: 639	

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2003	YEM03-28	639	636	0	99.53	0.47
2	O/YEM/22/2003	YEM03-22	639	636	0	99.53	0.47
3	O/YEM/48/2004	YEM04-48	638	630	1	98.75	1.25
4	O/KEN/1/99	KEN99-01	257	250	3	97.28	2.72
5	O/KEN/6/99	KEN99-06	251	242	3	96.41	3.59
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/YEM/4/95	YEM95-04	342	319	3	93.27	6.73
8	O/SAU/69/93	SAU93-69	143	133	6	93.01	6.99
9	O/SAU/31/92	SAU92-31	159	146	6	91.82	8.18
10	O/ETH/8/94	ETH94-08	584	536	4	91.78	8.22

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/53/79	IND79A53	639	553	0	86.54	13.46
2	O/TAW/2/99	TAW99-02	639	548	0	85.76	14.24
3	O1/Manisa/TUR/69	TUR69--E	639	547	0	85.6	14.4
4	O/IND/R2/75*	IND75--A	639	546	0	85.45	14.55
5	O/ISR/2/88	ISR88-02	639	543	0	84.98	15.02
6	O/TAI/189/87*	TAI87-AC	639	534	0	83.57	16.43
7	O/MOR/1/91	MOR91-01	207	172	3	83.09	16.91
8	O/HKN/6/83	HKN83-06	637	506	2	79.43	20.57
9	O1/BFS 1860/UK/67	UKG67--A	639	507	0	79.34	20.66
10	O/PHI/5/95	PHI95-05	639	499	0	78.09	21.91

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O  
 WRL Ref No: YEM/21/2004  
 Date collected: 11/02/2004  
 Date received: 17/09/2004  
 Species: Cattle  
 Material used: BTy1  
 Region sequenced: VP1  
 RT-PCR primers: O-1C272F/NK61  
 No. of Nt determined: 639  
 No. of ambiguities: 0  
 Gene length: 639

Report date: 27/10/2004  
 Topotype: EA-3 (proposed new topotype)  
 Genotype/strain: none defined  
 Sequence filename: YEM04-21.SEQ  
 Date sequence last updated: 27/10/2004  
 Total no. of comparisons: 1517

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/35/2004	YEM04-35	639	637	0	99.69	0.31
2	O/YEM/28/2004	YEM04-28	639	637	0	99.69	0.31
3	O/YEM/66/2004	YEM04-66	639	636	0	99.53	0.47
4	O/YEM/70/2004	YEM04-70	639	632	0	98.9	1.1
5	O/YEM/57/2004	YEM04-57	639	631	0	98.75	1.25
6	O/ETH/5/95 (OVI)	ETH95A05	495	462	0	93.33	6.67
7	O/ETH/16/90	ETH90-16	161	150	4	93.17	6.83
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	456	0	92.12	7.88
9	O/ETH/3/90 (OVI)	ETH90A03	495	455	0	91.92	8.08
10	O/ETH/12/90 (OVI)	ETH90A12	495	454	0	91.72	8.28

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	550	0	86.07	13.93
2	O/IND/R2/75*	IND75--A	639	547	0	85.6	14.4
3	O/IND/53/79	IND79A53	639	547	0	85.6	14.4
4	O/MOR/1/91	MOR91-01	207	177	3	85.51	14.49
5	O1/Manisa/TUR/69	TUR69--E	639	546	0	85.45	14.55
6	O/ISR/2/88	ISR88-02	639	543	0	84.98	15.02
7	O/TAI/189/87*	TAI87-AC	639	540	0	84.51	15.49
8	O/PHI/5/95	PHI95-05	639	509	0	79.66	20.34
9	O/HKN/6/83	HKN83-06	637	505	2	79.28	20.72
10	O1/BFS 1860/UK/67	UKG67--A	639	506	0	79.19	20.81

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 27/10/2004
WRL Ref No: YEM/28/2004	
Date collected: 09/05/2004	
Date received: 17/09/2004	
Species: Cattle	Topotype: EA-3 (proposed new topotype)
Material used: BTy1	Genotype/strain: none defined
Region sequenced: VP1	Sequence filename: YEM04-28.SEQ
RT-PCR primers: O-1C272F/NK61	Date sequence last updated: 27/10/2004
No. of Nt determined: 639	Total no. of comparisons: 1517
No. of ambiguities: 0	
Gene length: 639	

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/35/2004	YEM04-35	639	639	0	100	0
2	O/YEM/66/2004	YEM04-66	639	638	0	99.84	0.16
3	O/YEM/21/2004	YEM04-21	639	637	0	99.69	0.31
4	O/YEM/70/2004	YEM04-70	639	634	0	99.22	0.78
5	O/YEM/57/2004	YEM04-57	639	633	0	99.06	0.94
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/ETH/5/95 (OVI)	ETH95A05	495	464	0	93.74	6.26
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	458	0	92.53	7.47
9	O/ETH/3/90 (OVI)	ETH90A03	495	457	0	92.32	7.68
10	O/ETH/12/90 (OVI)	ETH90A12	495	456	0	92.12	7.88

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	550	0	86.07	13.93
2	O/IND/53/79	IND79A53	639	548	0	85.76	14.24
3	O/IND/R2/75*	IND75--A	639	545	0	85.29	14.71
4	O1/Manisa/TUR/69	TUR69--E	639	544	0	85.13	14.87
5	O/MOR/1/91	MOR91-01	207	176	3	85.02	14.98
6	O/ISR/2/88	ISR88-02	639	543	0	84.98	15.02
7	O/TAI/189/87*	TAI87-AC	639	538	0	84.19	15.81
8	O1/BFS 1860/UK/67	UKG67--A	639	508	0	79.5	20.5
9	O/PHI/5/95	PHI95-05	639	508	0	79.5	20.5
10	O/HKN/6/83	HKN83-06	637	504	2	79.12	20.88

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 27/10/2004
WRL Ref No: YEM/35/2004	
Date collected: 15/05/2004	
Date received: 17/09/2004	
Species: Cattle	Topotype: EA-3 (proposed new topotype)
Material used: BTy1	Genotype/strain: none defined
Region sequenced: VP1	Sequence filename: YEM04-35.SEQ
RT-PCR primers: O-1C272F/NK61	Date sequence last updated: 21/10/2004
No. of Nt determined: 639	Total no. of comparisons: 1517
No. of ambiguities: 0	
Gene length: 639	

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2004	YEM04-28	639	639	0	100	0
2	O/YEM/66/2004	YEM04-66	639	638	0	99.84	0.16
3	O/YEM/21/2004	YEM04-21	639	637	0	99.69	0.31
4	O/YEM/70/2004	YEM04-70	639	634	0	99.22	0.78
5	O/YEM/57/2004	YEM04-57	639	633	0	99.06	0.94
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/ETH/5/95 (OVI)	ETH95A05	495	464	0	93.74	6.26
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	458	0	92.53	7.47
9	O/ETH/3/90 (OVI)	ETH90A03	495	457	0	92.32	7.68
10	O/ETH/12/90 (OVI)	ETH90A12	495	456	0	92.12	7.88

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	550	0	86.07	13.93
2	O/IND/53/79	IND79A53	639	548	0	85.76	14.24
3	O/IND/R2/75*	IND75--A	639	545	0	85.29	14.71
4	O1/Manisa/TUR/69	TUR69--E	639	544	0	85.13	14.87
5	O/MOR/1/91	MOR91-01	207	176	3	85.02	14.98
6	O/ISR/2/88	ISR88-02	639	543	0	84.98	15.02
7	O/TAI/189/87*	TAI87-AC	639	538	0	84.19	15.81
8	O1/BFS 1860/UK/67	UKG67--A	639	508	0	79.5	20.5
9	O/PHI/5/95	PHI95-05	639	508	0	79.5	20.5
10	O/HKN/6/83	HKN83-06	637	504	2	79.12	20.88

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 27/10/2004
WRL Ref No: YEM/48/2004	
Date collected: 12/06/2004	
Date received: 17/09/2004	
Species: Cattle	Topotype: EA-3 (proposed new topotype)
Material used: BTy1	Genotype/strain: none defined
Region sequenced: VP1	Sequence filename: YEM04-48.SEQ
RT-PCR primers: O-1C272F/NK61	Date sequence last updated: 27/10/2004
No. of Nt determined: 638	Total no. of comparisons: 1517
No. of ambiguities: 1	
Gene length: 639	

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2003	YEM03-28	638	631	1	98.9	1.1
2	O/YEM/22/2003	YEM03-22	638	631	1	98.9	1.1
3	O/YEM/1/2004	YEM04-01	638	630	1	98.75	1.25
4	O/KEN/1/99	KEN99-01	256	248	4	96.88	3.13
5	O/KEN/6/99	KEN99-06	250	240	4	96	4
6	O/ETH/16/90	ETH90-16	161	153	4	95.03	4.97
7	O/SAU/69/93	SAU93-69	143	133	6	93.01	6.99
8	O/YEM/4/95	YEM95-04	342	318	3	92.98	7.02
9	O/SAU/31/92	SAU92-31	159	147	6	92.45	7.55
10	O/TUR/5/90	TUR90-05	156	143	9	91.67	8.33

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/IND/53/79	IND79A53	638	549	1	86.05	13.95
2	O/IND/R2/75*	IND75--A	638	548	1	85.89	14.11
3	O/TAW/2/99	TAW99-02	638	548	1	85.89	14.11
4	O1/Manisa/TUR/69	TUR69--E	638	541	1	84.8	15.2
5	O/ISR/2/88	ISR88-02	638	541	1	84.8	15.2
6	O/TAI/189/87*	TAI87-AC	638	535	1	83.86	16.14
7	O/MOR/1/91	MOR91-01	207	171	3	82.61	17.39
8	O1/BFS 1860/UK/67	UKG67--A	638	509	1	79.78	20.22
9	O/HKN/6/83	HKN83-06	636	504	3	79.25	20.75
10	O/PHI/5/95	PHI95-05	638	499	1	78.21	21.79

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O  
WRL Ref No: YEM/57/2004  
Date collected: 24/07/2004  
Date received: 17/09/2004  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: O-1C272F/NK61  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 27/10/2004  
Topotype: EA-3 (proposed new topotype)  
Genotype/strain: none defined  
Sequence filename: YEM04-57.SEQ  
Date sequence last updated: 27/10/2004  
Total no. of comparisons: 1517

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2004	YEM04-28	639	633	0	99.06	0.94
2	O/YEM/35/2004	YEM04-35	639	633	0	99.06	0.94
3	O/YEM/66/2004	YEM04-66	639	632	0	98.9	1.1
4	O/YEM/21/2004	YEM04-21	639	631	0	98.75	1.25
5	O/YEM/70/2004	YEM04-70	639	630	0	98.59	1.41
6	O/ETH/16/90	ETH90-16	161	152	4	94.41	5.59
7	O/ETH/5/95 (OVI)	ETH95A05	495	464	0	93.74	6.26
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	458	0	92.53	7.47
9	O/ETH/12/90 (OVI)	ETH90A12	495	458	0	92.53	7.47
10	O/SAU/31/92	SAU92-31	159	147	6	92.45	7.55

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	551	0	86.23	13.77
2	O/IND/53/79	IND79A53	639	549	0	85.92	14.08
3	O/MOR/1/91	MOR91-01	207	177	3	85.51	14.49
4	O/IND/R2/75*	IND75--A	639	546	0	85.45	14.55
5	O1/Manisa/TUR/69	TUR69--E	639	545	0	85.29	14.71
6	O/ISR/2/88	ISR88-02	639	544	0	85.13	14.87
7	O/TAI/189/87*	TAI87-AC	639	539	0	84.35	15.65
8	O1/BFS 1860/UK/67	UKG67--A	639	507	0	79.34	20.66
9	O/PHI/5/95	PHI95-05	639	503	0	78.72	21.28
10	O/HKN/6/83	HKN83-06	637	501	2	78.65	21.35

nt, nucleotides

\*, not a WRLFMD reference number



Serotype: O  
WRL Ref No: YEM/66/2004  
Date collected: 21/08/2004  
Date received: 17/09/2004  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: O-1C272F/NK61  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 27/10/2004  
Topotype: EA-3 (proposed new topotype)  
Genotype/strain: none defined  
Sequence filename: YEM04-66.SEQ  
Date sequence last updated: 21/10/2004  
Total no. of comparisons: 1517

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2004	YEM04-28	639	638	0	99.84	0.16
2	O/YEM/35/2004	YEM04-35	639	638	0	99.84	0.16
3	O/YEM/21/2004	YEM04-21	639	636	0	99.53	0.47
4	O/YEM/70/2004	YEM04-70	639	633	0	99.06	0.94
5	O/YEM/57/2004	YEM04-57	639	632	0	98.9	1.1
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/ETH/5/95 (OVI)	ETH95A05	495	463	0	93.54	6.46
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	457	0	92.32	7.68
9	O/ETH/3/90 (OVI)	ETH90A03	495	456	0	92.12	7.88
10	O/ETH/12/90 (OVI)	ETH90A12	495	455	0	91.92	8.08

### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	549	0	85.92	14.08
2	O/IND/53/79	IND79A53	639	547	0	85.6	14.4
3	O/IND/R2/75*	IND75--A	639	544	0	85.13	14.87
4	O1/Manisa/TUR/69	TUR69--E	639	543	0	84.98	15.02
5	O/ISR/2/88	ISR88-02	639	542	0	84.82	15.18
6	O/MOR/1/91	MOR91-01	207	175	3	84.54	15.46
7	O/TAI/189/87*	TAI87-AC	639	537	0	84.04	15.96
8	O1/BFS 1860/UK/67	UKG67--A	639	507	0	79.34	20.66
9	O/PHI/5/95	PHI95-05	639	507	0	79.34	20.66
10	O/HKN/6/83	HKN83-06	637	503	2	78.96	21.04

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O  
WRL Ref No: YEM/70/2004  
Date collected: 12/09/2004  
Date received: 17/09/2004  
Species: Cattle  
Material used: BTy1  
Region sequenced: VP1  
RT-PCR primers: O-1C272F/NK61  
No. of Nt determined: 639  
No. of ambiguities: 0  
Gene length: 639

Report date: 27/10/2004  
Topotype: EA-3 (proposed new topotype)  
Genotype/strain: none defined  
Sequence filename: YEM04-70.SEQ  
Date sequence last updated: 27/10/2004  
Total no. of comparisons: 1517

Comments:

### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/YEM/28/2004	YEM04-28	639	634	0	99.22	0.78
2	O/YEM/35/2004	YEM04-35	639	634	0	99.22	0.78
3	O/YEM/66/2004	YEM04-66	639	633	0	99.06	0.94
4	O/YEM/21/2004	YEM04-21	639	632	0	98.9	1.1
5	O/YEM/57/2004	YEM04-57	639	630	0	98.59	1.41
6	O/ETH/16/90	ETH90-16	161	151	4	93.79	6.21
7	O/ETH/5/95 (OVI)	ETH95A05	495	464	0	93.74	6.26
8	O/ETH/19/77 (1983)* (OVI)	ETH83A19	495	458	0	92.53	7.47
9	O/ETH/3/90 (OVI)	ETH90A03	495	457	0	92.32	7.68
10	O/ETH/12/90 (OVI)	ETH90A12	495	456	0	92.12	7.88

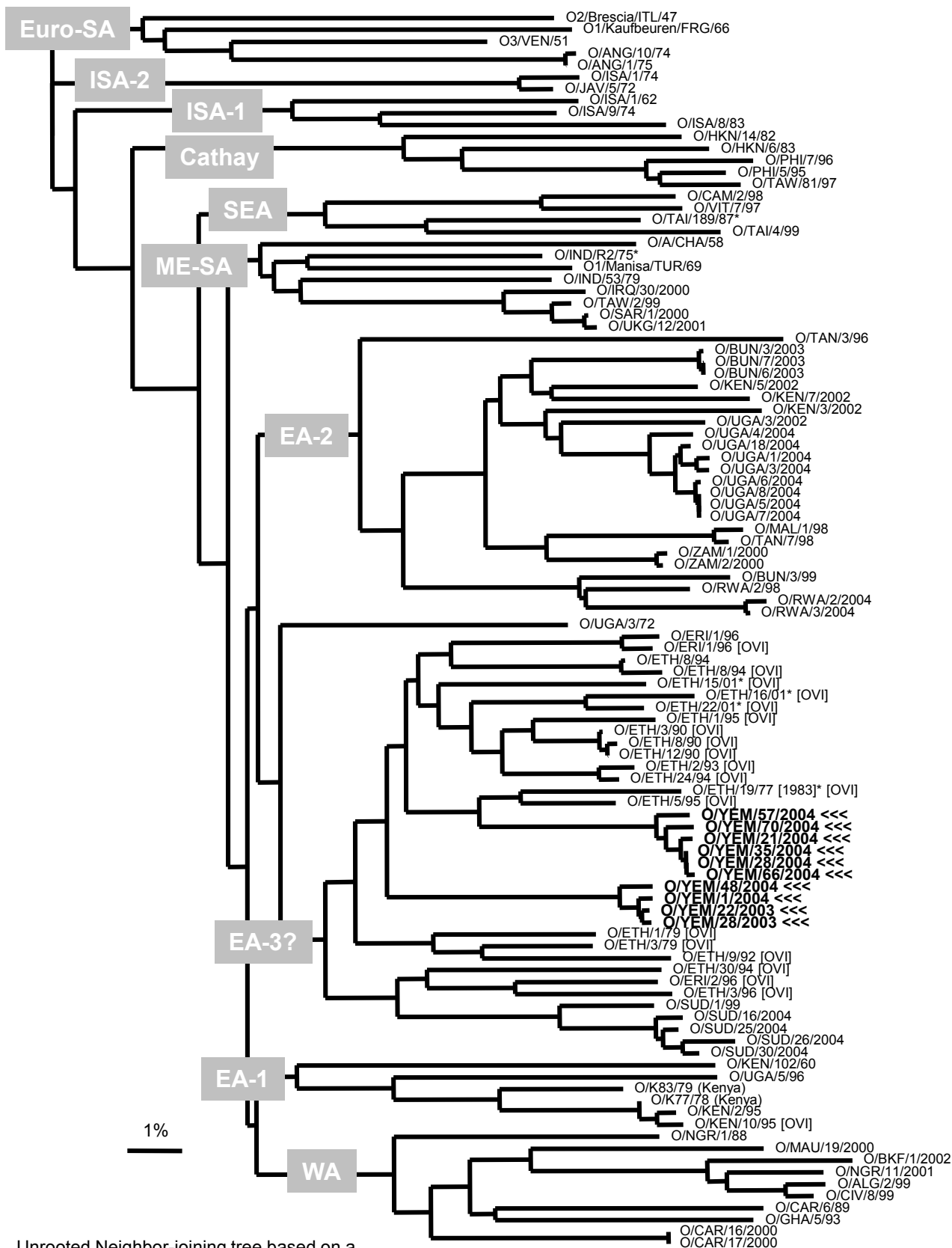
### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99	TAW99-02	639	549	0	85.92	14.08
2	O/IND/53/79	IND79A53	639	547	0	85.6	14.4
3	O/IND/R2/75*	IND75--A	639	544	0	85.13	14.87
4	O/MOR/1/91	MOR91-01	207	176	3	85.02	14.98
5	O1/Manisa/TUR/69	TUR69--E	639	543	0	84.98	15.02
6	O/ISR/2/88	ISR88-02	639	542	0	84.82	15.18
7	O/TAI/189/87*	TAI87-AC	639	538	0	84.19	15.81
8	O/PHI/5/95	PHI95-05	639	508	0	79.5	20.5
9	O1/BFS 1860/UK/67	UKG67--A	639	506	0	79.19	20.81
10	O/HKN/6/83	HKN83-06	637	504	2	79.12	20.88

nt, nucleotides

\*, not a WRLFMD reference number

# Report on FMDV O from Yemen 2003-2004



Unrooted Neighbor-joining tree based on a comparison of the complete VP1 gene (~639 nt). The tree was outgroup-rooted using the Euro-SA topotype sequences. Sequences from the Onderstepoort Veterinary Institute (OVI), South Africa were shorter (495 nt).

N.J. Knowles, P.R. Davies, R. J. Midgley & J.-F. Valarcher, 27 October 2004