

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200005
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38429

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	95
BM2113	129	133
TGLA053	160	160
ETH10	Not Detected	
ILSTS011	261	272
SPS113	139	151
RM067	90	92
TGLA126	119	125
TGLA122	143	143
INRA023	210	214

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	Not Detected	
ETH225	140	148
BM1824	180	180
SPS115	248	254
CSRM060	92	92
MGTG4B	135	145
CSSM066	189	189
ILSTS006	292	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

26 October 2022

Date

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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200008
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38430

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	89
BM2113	121	139
TGLA053	160	160
ETH10	Not Detected	
ILSTS011	261	261
SPS113	141	143
RM067	92	98
TGLA126	125	125
TGLA122	147	149
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	262	264
ETH003	Not Detected	
ETH225	150	158
BM1824	180	192
SPS115	248	248
CSRM060	92	110
MGTG4B	145	147
CSSM066	185	189
ILSTS006	288	294

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200019
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38431

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	87	87
BM2113	129	139
TGLA053	160	174
ETH10	Not Detected	
ILSTS011	261	266
SPS113	141	153
RM067	94	98
TGLA126	115	125
TGLA122	137	137
INRA023	196	196

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	Not Detected	
ETH225	140	140
BM1824	180	182
SPS115	248	248
CSRM060	102	110
MGTG48	137	139
CSSM066	185	187
ILSTS006	292	294

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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200028
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38432

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	93
BM2113	121	129
TGLA053	160	160
ETH10	209	221
ILSTS011	Not Detected	
SPS113	143	153
RM067	90	98
TGLA126	117	123
TGLA122	143	143
INRA023	214	214

STR Marker	Allele 1	Allele 2
BM1818	260	268
ETH003	Not Detected	
ETH225	140	148
BM1824	180	180
SPS115	248	248
CSRM060	92	102
MGTG4B	135	141
CSSM066	189	189
ILSTS006	288	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.


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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200029
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38433

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	87
BM2113	121	121
TGLA053	162	176
ETH10	Not Detected	
ILSTS011	266	268
SPS113	141	143
RM067	94	98
TGLA126	119	125
TGLA122	137	137
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	268	268
ETH003	Not Detected	
ETH225	140	158
BM1824	180	180
SPS115	246	248
CSRM060	102	102
MG TG4B	139	143
CSSM066	185	185
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200030
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38434

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	87
BM2113	121	137
TGLA053	162	176
ETH10	211	219
ILSTS011	266	268
SPS113	143	153
RM067	92	94
TGLA126	121	125
TGLA122	137	139
INRA023	196	198

STR Marker	Allele 1	Allele 2
BM1818	262	262
ETH003	117	117
ETH225	144	158
BM1824	180	182
SPS115	248	248
CSRM060	96	110
MGTG4B	139	143
CSSM066	185	185
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200033
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38435

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	87
BM2113	125	141
TGLA053	160	172
ETH10	211	221
ILSTS011	Not Detected	
SPS113	137	139
RM067	90	90
TGLA126	119	125
TGLA122	143	151
INRA023	198	208

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	117	125
ETH225	148	158
BM1824	180	182
SPS115	248	248
CSRM060	102	102
MGTG4B	147	149
CSSM066	181	183
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200034
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38436

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	87	87
BM2113	121	133
TGLA053	160	172
ETH10	219	221
ILSTS011	266	268
SPS113	137	151
RM067	90	92
TGLA126	115	125
TGLA122	137	147
INRA023	196	214

STR Marker	Allele 1	Allele 2
BM1818	262	268
ETH003	Not Detected	
ETH225	140	140
BM1824	180	180
SPS115	248	256
CSRM060	92	102
MGTG4B	147	147
CSSM066	185	189
ILSTS006	Not Detected	

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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General Information:

Test Animal	
ANIMAL ID/NAME	LEB200042
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Berlie van Zyl
LAB. NO	ZOCA2022-38437

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	93
BM2113	121	139
TGLA053	160	164
ETH10	219	221
ILSTS011	264	264
SPS113	147	151
RM067	90	94
TGLA126	117	125
TGLA122	143	149
INRA023	198	216

STR Marker	Allele 1	Allele 2
BM1818	260	260
ETH003	125	125
ETH225	140	158
BM1824	180	192
SPS115	248	256
CSRM060	102	110
MGTG4B	141	149
CSSM066	179	189
ILSTS006	284	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

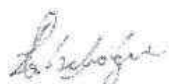
Test Animal	
ANIMAL ID/NAME	LEB200050
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38438

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	87	87
BM2113	121	137
TGLA053	162	166
ETH10	209	219
ILSTS011	261	268
SPS113	141	153
RM067	90	92
TGLA126	123	125
TGLA122	137	143
INRA023	196	198

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	117	117
ETH225	140	140
BM1824	180	192
SPS115	248	248
CSRM060	102	102
MGTG4B	135	139
CSSM066	181	189
ILSTS006	292	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200053
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38439

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	81
BM2113	121	133
TGLA053	160	162
ETH10	211	219
ILSTS011	266	272
SPS113	139	143
RM067	90	92
TGLA126	115	117
TGLA122	143	151
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	260	262
ETH003	Not Detected	
ETH225	151	154
BM1824	180	180
SPS115	248	248
CSRM060	92	110
MGTG4B	139	147
CSSM066	185	189
ILSTS006	292	300

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200055
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38440

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	87
BM2113	121	141
TGLA053	160	176
ETH10	209	211
ILSTS011	266	266
SPS113	141	141
RM067	92	94
TGLA126	125	125
TGLA122	137	143
INRA023	196	198

STR Marker	Allele 1	Allele 2
BM1818	258	268
ETH003	117	117
ETH225	140	150
BM1824	180	182
SPS115	248	248
CSRM060	102	102
MGTG4B	139	147
CSSM066	185	185
ILSTS006	284	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200065
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38441

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	83	87
BM2113	121	121
TGLA053	172	178
ETH10	211	217
ILSTS011	266	268
SPS113	137	141
RM067	90	90
TGLA126	125	125
TGLA122	151	151
INRA023	196	214

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	Not Detected	
ETH225	140	154
BM1824	182	182
SPS115	248	248
CSRM060	92	102
MGTG4B	141	141
CSSM066	185	187
ILSTS006	296	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200068
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38442

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	77
BM2113	121	141
TGLA053	160	178
ETH10	211	211
ILSTS011	268	268
SPS113	141	153
RM067	92	94
TGLA126	125	125
TGLA122	137	137
INRA023	196	196

STR Marker	Allele 1	Allele 2
BM1818	258	268
ETH003	119	119
ETH225	140	158
BM1824	180	182
SPS115	248	258
CSRM060	92	110
MGTG4B	145	147
CSSM066	185	185
ILSTS006	292	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200072
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38443

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	87
BM2113	121	141
TGLA053	160	162
ETH10	219	219
ILSTS011	268	268
SPS113	141	153
RM067	92	94
TGLA126	121	125
TGLA122	137	149
INRA023	196	214

STR Marker	Allele 1	Allele 2
BM1818	262	268
ETH003	Not Detected	
ETH225	140	148
BM1824	182	182
SPS115	248	248
CSRM060	102	102
MGTG4B	139	147
CSSM066	187	189
ILSTS006	292	296

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200074
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38444

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	77
BM2113	129	133
TGLA053	160	178
ETH10	211	221
ILSTS011	264	268
SPS113	141	143
RM067	90	90
TGLA126	117	121
TGLA122	137	143
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	260	266
ETH003	Not Detected	
ETH225	154	154
BM1824	180	180
SPS115	248	256
CSRM060	92	102
MG TG4B	137	147
CSSM066	185	185
ILSTS006	294	300

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200091
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38445

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	101
BM2113	121	121
TGLA053	160	172
ETH10	211	221
ILSTS011	261	263
SPS113	137	139
RM067	92	94
TGLA126	115	125
TGLA122	137	147
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	Not Detected	
ETH225	158	158
BM1824	182	192
SPS115	248	248
CSRM060	92	102
MGTG4B	141	147
CSSM066	181	189
ILSTS006	300	301

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.


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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200098
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38446

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	81
BM2113	133	141
TGLA053	160	180
ETH10	211	221
ILSTS011	264	266
SPS113	141	151
RM067	94	98
TGLA126	119	125
TGLA122	137	143
INRA023	206	214

STR Marker	Allele 1	Allele 2
BM1818	260	266
ETH003	Not Detected	
ETH225	150	150
BM1824	180	192
SPS115	248	248
CSRM060	96	110
MGTG4B	137	149
CSSM066	183	189
ILSTS006	284	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200122
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38447

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	87
BM2113	121	139
TGLA053	160	186
ETH10	219	219
ILSTS011	266	266
SPS113	153	153
RM067	92	94
TGLA126	123	125
TGLA122	137	137
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	266	268
ETH003	Not Detected	
ETH225	140	148
BM1824	182	192
SPS115	246	248
CSRM060	92	110
MGTG4B	137	147
CSSM066	181	185
ILSTS006	296	300

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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	LEB200845
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38448

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	91
BM2113	121	133
TGLA053	160	182
ETH10	209	211
ILSTS011	264	268
SPS113	141	153
RM067	94	98
TGLA126	123	123
TGLA122	143	143
INRA023	198	198

STR Marker	Allele 1	Allele 2
BM1818	262	268
ETH003	Not Detected	
ETH225	151	154
BM1824	180	192
SPS115	248	248
CSRM060	96	110
MGTG4B	145	145
CSSM066	187	189
ILSTS006	284	294

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



Dr Christiaan Labuschagne
Genomics Manager

26 October 2022

Date

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ISAG
Institutional Member

06-Mar-15

DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	ZZN200006
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38449

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	79	101
BM2113	137	139
TGLA053	166	184
ETH10	211	213
ILSTS011	261	268
SPS113	141	153
RM067	90	90
TGLA126	117	123
TGLA122	Not Detected	
INRA023	196	210

STR Marker	Allele 1	Allele 2
BM1818	262	266
ETH003	Not Detected	
ETH225	140	158
BM1824	180	180
SPS115	248	256
CSRM060	92	92
MGTG4B	145	145
CSSM066	181	185
ILSTS006	284	292

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	ZZN200008
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38450

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	81	81
BM2113	121	133
TGLA053	160	160
ETH10	211	219
ILSTS011	261	261
SPS113	141	143
RM067	Not Detected	
TGLA126	117	123
TGLA122	143	143
INRA023	208	214

STR Marker	Allele 1	Allele 2
BM1818	258	268
ETH003	Not Detected	
ETH225	144	160
BM1824	180	192
SPS115	248	248
CSRM060	110	110
MGTG4B	145	145
CSSM066	189	189
ILSTS006	288	294

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	ZZN200022
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38451

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	79	81
BM2113	121	135
TGLA053	160	162
ETH10	213	221
ILSTS011	Not Detected	
SPS113	141	147
RM067	90	98
TGLA126	123	123
TGLA122	143	143
INRA023	198	214

STR Marker	Allele 1	Allele 2
BM1818	262	268
ETH003	Not Detected	
ETH225	148	160
BM1824	180	180
SPS115	246	256
CSRM060	92	94
MG TG4B	141	145
CSSM066	187	189
ILSTS006	294	301

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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DNA PROFILE CERTIFICATE

General Information:

Test Animal	
ANIMAL ID/NAME	ZZN200026
BREED	Nguni
SPECIES	Cattle
GENDER	Male
OWNER	Bertie van Zyl
LAB. NO	ZOCA2022-38452

DNA Profiling Results:

STR Marker	Allele 1	Allele 2
TGLA227	77	77
BM2113	137	141
TGLA053	160	176
ETH10	209	211
ILSTS011	264	264
SPS113	141	143
RM067	90	92
TGLA126	117	117
TGLA122	137	143
INRA023	214	214

STR Marker	Allele 1	Allele 2
BM1818	262	262
ETH003	Not Detected	
ETH225	140	148
BM1824	192	192
SPS115	248	256
CSRM060	92	92
MGTG4B	135	139
CSSM066	185	189
ILSTS006	284	300

The DNA profile represents the standardised alleles for the 12 International Society for Animal Genetics (ISAG, 2016) recommended markers. These alleles were obtained from STR analysis by capillary electrophoresis. The DNA profile includes additional markers as recommended by the Food and Agriculture Organization of the United Nations (FAO) for routine bovine parentage testing and identification.



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