

**A.D.H.I.S. Pty. Ltd.**

## **Data Interchange Format**

**Version 6 for formats 251**

**Version 5 for formats 201**

**Version 3 for formats 105, 114, 211, 212, 481**

**Version 2 for formats 101, 108, 110, 202, and 501**

**Version 1 for all other formats**

**New: 261**

**For the transfer of data between  
Australian Dairy Herd Improvement Organisations**

**November 2014**

**Formats official from 1 March 2015**

## **ADHIS formats for transfer of data between Australian Dairy Herd Improvement Organisations.**

The Data Interchange Formats (DIF) are designed to standardise and facilitate transfer of data between ADHIS, Data Processing Centres (DPCs) and other participants in the dairy herd improvement industry. The formats were implemented by ADHIS and all DPCs on 1 July 1997. There have been updates in January 2000, May 2001, June 2003, September 2007 and April 2012.

### **Features of the Data Interchange Formats**

- In the attached formats, the Animal ID that links an animal to its traits and pedigree is the National Animal ID.
- All dates are expressed in yyyyymmdd format where:
  - yyyy = 4 digit year (eg. 1984, 1995, 2001)
  - mm = 2 digit month (eg. 02 = February, 11 = November)
  - dd = 2 digit day of the month (eg. 01, 13, 27)
- When a date is unknown, the field is space filled.
- Numeric fields are right justified and space filled
- Alpha/numeric or character fields are left justified and space filled.
- Test-day components are expressed as percentages rather than as yield in kilograms.
- Each record is identified with a record type. This enables multiple record types to be supplied in the one file if this is convenient.
- Formats developed from May 2001 onwards contain a version number as the second field in each record.

### **Routine transfer of Data to ADHIS**

- Routine dumps should include record types 101, 102, 103, 104, 105, 106, 107, 108 and 112.
- ADHIS requires the data sorted in the order specified in each format description. The major sort key should be record type if a file contains more than one record type.
- Routine dumps from DPCs should include a herd record (format 101), all lactations in progress and all lactations that terminated or reached 305 days since the previous dump (format 103). All test day records (format 104) must be provided for each lactation provided. A cow record (format 102) must be provided for each cow with an eligible lactation record and for all cows up to 30 months of age regardless of lactation status. Workability records (format 106), mating records (format 108) and ease of calving records (format 112) that occurred since the previous dump should also be provided with a herd record (format 101) and a cow record (format 102).
- Routine monthly dumps are acceptable to ADHIS. The data required at each dump will be negotiated between ADHIS and the DPC concerned, following the principle of transferring the minimum amount of data that will ensure data integrity (a minimum of three months overlap) on both the DPC and ADHIS computer systems.

### **Transfer of Data between DPCs or to Farm PC packages.**

- Herd transfer dumps between DPCs, and to Farm PC packages, should include all data held on the system for the herd (this will typically be record types 101 - 108, 112 and 211).
- File names should contain the National Herd ID and the extension 'DIF' if various record types are included in a single file (eg, C12345H.DIF), or the format number if separate files are provided for each record type (eg, C12345H.102).
- All records in the file, including the last record, are to be delimited by a carriage return and line feed.

The following formats are described in this document

Format	Data Record	Versio n	Page	Latest Update
101	Herd Record	2	1	14 <sup>th</sup> June 2002
102	Cow Pedigree Record	1	2	9 <sup>th</sup> May 2001
103	Lactation Record	1	3	9 <sup>th</sup> May 2001
104	Test Day Record	1	4	9 <sup>th</sup> May 2001
105	Bull Pedigree Record (incorporates NASIS file)	3	5	22 <sup>nd</sup> May 2012
106	Workability Record	1	6	9 <sup>th</sup> May 2001
107	Herd Test Day Production Record	1	7	9 <sup>th</sup> May 2001
108	Mating Record	2	8,9	22 <sup>nd</sup> May 2012
110	Disclosure Record	2	10	9 <sup>th</sup> May 2001
111	Liveweight Record	1	11	9 <sup>th</sup> May 2001
112	Calving Ease Record	1	12	6 <sup>th</sup> Sept 2007
114	Conformation Trait Record	3	13,14	6 <sup>th</sup> Sept 2007
115	International Cow Pedigree Record	1	15	9 <sup>th</sup> May 2001
116	Herd Health Record	1	16	14 <sup>th</sup> June 2003
201	Bull ABVs for All Traits	5	17,18,19	18 <sup>th</sup> Nov 2014
202	Cow ABVs for All Traits	2	20, 21	18 <sup>th</sup> Nov 2014
211	Cow ABVs for Production Traits	3	22, 23	18 <sup>th</sup> Nov 2014
212	Herd Mean ABVs for Production Traits	3	24, 25	18 <sup>th</sup> Nov 2014
251	Bull ABVs for All Traits (extended file)	6	26-33	18 <sup>th</sup> Nov 2014
261	Cow ABVs for All Traits (extended file)	2	34-36	18 <sup>th</sup> Nov 2014
401	Record for pre-printing of LTE forms	1	37	26 <sup>th</sup> April 2001
481	Genotype Nominations file	3	38	22 <sup>nd</sup> May 2012
501	Progeny Test Daughter Progress Report	2	39-40	6 <sup>th</sup> Sept 2007
502	Calving Ease for Progeny Test Bulls	1	41	26 <sup>th</sup> April 2001
<b>Appendix A</b>	<b>Notes of Explanation</b>			
Note 1	Breed Codes		A-1	7 <sup>th</sup> May 1997
Note 2	Herdbook ID		A-2	7 <sup>th</sup> May 1997
Note 3	National Animal ID		A-2,3	7 <sup>th</sup> May 1997
Note 4	Data Processing Centre (DPC) Codes		A-4	22 <sup>nd</sup> May 2012
Note 5	Termination Codes		A-5	7 <sup>th</sup> May 1997
Note 6	Codes for Organisations that own bulls or request ...		A-6	22 <sup>nd</sup> May 2012
Note 7	Health Events		A-7	9 <sup>th</sup> May 2001
Note 8	National Herd ID		A-8	9 <sup>th</sup> May 2001
Note 9	NLIS formats (Animal Transfer and Animal Termination)		A-9	9 <sup>th</sup> May 2001
Note 10	Genetic codes		A-10	22 <sup>nd</sup> May 2012
<b>Appendix B</b>	<b>Formats discontinued as from 14<sup>th</sup> June 2003</b>			
101	Herd Record	1	B-2	
105	Bull Pedigree Record (incorporates NASIS file)	1	B-3	
110	Disclosure Record	1	B-4	
114	Conformation Trait Record	1	B-5,6	
201	Bull ABVs for All Traits	1	B-7,8	
<b>Appendix C</b>	<b>Formats discontinued as from 4<sup>th</sup> March 2008</b>			
114	Conformation Trait Record	2	C-2-3	
201	Bull ABVs for All Traits	2	C-4-5	
501	Progeny Test Daughter Progress Report	1	C-6	
<b>Appendix D</b>	<b>Formats discontinued as from April 2012</b>			
105	Bull Pedigree Record (incorporates NASIS file)	2	D-2	
108	Mating Record	1	D3	
201	Bull ABVs for All Traits	3	D-4-5	

211	Cow ABVs for Production Traits	1	D-6	
212	Herd Mean ABVs for Production Traits	1	D-7	
251	Bull ABVs for All Traits (extended file)	1	D-8-13	
<b>Appendix E</b>	<b>Formats discontinued as from March 2015</b>			
201	Bull ABVs for All Traits	4	E-2	
202	Cow ABVs for All Traits	1	E-4	
211	Cow ABVs for Production Traits	2	E-6	
212	Herd Mean ABVs for Production Traits	2	E-7	
251	Bull ABVs for All Traits (extended file)	5	E-8	

## Data Format 101 V2

## Herd Record

Field No.	Field Name	Start column	Length	Numeric/ Alpha	Comments
1	Record Type	1	3	N	Value = 101
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Farmer Name and Address</b>					
4	Full Name	12	35	A	Surname or Company name to appear first in this field to allow sorting on Farmer Name to be meaningful.
5	Line 1	47	35	A	
6	Line 2	82	35	A	
7	Line 3	117	35	A	
8	Postcode	152	4	N	
9	Farmer Phone Number	156	15	A	
<b>Location Details</b>					
10	State Code	171	1	A	First digit of state postcode
11	Location Code	172	3	A	To enable herds to be grouped by Region
12	NLIS Property Identification Code	175	8	A	
13	GPS Latitude	183	8	N	Farm location using Global Positioning System
14	GPS Longitude	191	8	N	
<b>Herd Codes</b>					
15	Testing Frequency	199	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other
16	Sampler	200	1	A	Value F = Farmer sampler R = Recorder sampler U = Unknown sampler C = Farmer Collection
17	DPC Code	201	1	A	Data Processing Centre - see Note 4
18	Local Herd ID	202	9	A	Local ID used by the DPC (format = State Code (1 char), Herd ID (7 char) Usage Code (1 char))

RECORD LENGTH = 210 bytes

### Global Positioning System coordinates (GPS Latitude and GPS Longitude)

The GPS coordinates identify the location of the property. The units are degrees x 100000 (that is, there is an implied decimal place after the third digit). Negative signs are omitted.

Essential fields for ADHIS are 1, 2, 3, 4, 8, 10, 11, 15, 16, 17. Other fields are strongly recommended.  
Assumed sort order with all fields in ascending order : Fields 1, 2, 3.

## Data Format 102 V1

## Cow Pedigree Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 102
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID Herdbook ID	21	6	N	
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
<b>Pedigree details</b>					
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Required by ADHIS if Dam ID is unavailable, and MGS is available)
<b>Transfer Details</b>					
15	Transfer-in date	113	8	N	yyyymmdd See explanation below
16	National ID of Herd Transferred from	121	7	A	See Note 8
<b>Cow Name</b>					
17	Long	128	40	A	
18	Short	168	16	A	
<b>Cow status codes</b>					
19	Animal termination code	184	2	A	Sold and dead codes - see Note 5
20	Animal termination date	186	8	N	yyyymmdd
21	Sire verification flag	194	1	A	Value Y = yes; N = no

RECORD LENGTH = 194 bytes

### Transfer of Cows between Recorded Herds

ADHIS needs to have the capacity to analyse lactations with the herd in which the lactation occurs. If a cow is transferred from one herd to another, the details required are the date of transfer of a cow into a herd and the National Herd ID of her previous herd. The vast majority of cows are never transferred, and for these cows the two fields should be left blank.

Essential fields for ADHIS are 1, 2, 3, 4, 7, (6 if 5 is non-blank), (21 if 12 is non-blank). Fields 11 and 12 are also required for a cow to receive an ABV. Other fields are strongly recommended. Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 103 V1

## Lactation Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 103
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Calving Code	35	1	A	0 or N = normal calving; 1 or I = induced calving; 2 or A = aborted; 3 or L = induced lactation
8	Parity	36	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise 300 or 305 day yields
<b>Standard Lactation yields</b>					
9	Standard Lactation Code	38	1	N	0 = 300 days, 1 = 305 days
10	Milk	39	6	N	Litres
11	Fat	45	3	N	Kilograms
12	Protein	48	3	N	Kilograms
13	Lactose	51	3	N	Kilograms
14	Total solids	54	3	N	Kilograms
<b>Total lactation yields</b>					
15	Milk	57	6	N	Litres
16	Fat	63	4	N	Kilograms
17	Protein	67	4	N	Kilograms
18	Lactose	71	4	N	Kilograms
19	Total solids	75	4	N	Kilograms
<b>Lactation Status Codes</b>					
20	Termination date	79	8	N	yyyymmdd, blank if lactation in progress
21	Termination code	87	2	A	See Note 5
22	Exclusion code	89	1	A	Value A=accept; R=reject
<b>Production Index</b>					
23	Milk	90	3	N	
24	Fat	93	3	N	
25	Protein	96	3	N	
26	Customised PI	99	3	N	Use this field for any form of combined PI (the same formula for all records from a given DPC)
27	Number of tests in PI	102	2	N	

RECORD LENGTH = 103 bytes

Essential fields for ADHIS are 1,2,3,4,6,7,22. Field 9 is essential if yields are supplied. Other fields are strongly recommended. Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 6.

## Data Format 104 V1

## Test Day Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 104
2	Record Version Number	4	1	A	Value = 1
	<b>Herd ID</b>				
3	National Herd ID	5	7	A	See Note 8
	<b>Cow details</b>				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
	<b>Test Day Information</b>				
7	Test Date	35	8	N	yyyymmdd
8	Milk Yield	43	4	N	Units are litres x 10 (ie. 124 = 12.4 litres.)
9	Fat percentage	47	4	N	Percentage x 100 (ie. 450 = 4.50 %)
10	Protein percentage	51	4	N	Percentage x 100
11	Lactose percentage	55	4	N	Percentage x 100
12	Total solids %	59	4	N	Percentage x 100
13	Milk Urea Nitrogen (MUNs)	63	3	N	Milligrams per decilitre
14	Somatic cell count	66	5	N	Units are cell count/1000 (ie. 750 = 750,000)
15	Test day modifier	71	2	N	See note below
16	Flag for BST use	73	1	N	0=no hormone; 1=hormone treatment
17	Testing Frequency	74	1	N	Value 1 = 24 hour test 2 = Alternate am/pm (yields are expressed as 24 hour yields) 3 = 3 times a day milking 4 = Other
18	Number of days in milk yield average	75	2	N	Leave this field blank if milk yield is based on one day only. Use this field if milk yield is an average of several test days.

RECORD LENGTH = 76 bytes

### Test day modifier

ADHIS codes for excluding test days are:

- 0 Acceptable record
- 1 In-season (on heat)
- 2 Mastitis
- 3 Temporary Illness or Injury
- 4 AM or PM Sample Lost
- 5 Other reason for exclusion

### Number of days in Milk Yield Average

Leave this field blank if milk yield is based on one day only. Use this field if milk yield is an average of several test days. for example where daily volume measures are provided as the average of a calendar month. If milk yield is the average of more than one day, all cows in the herd should have the same test date.

Essential fields for ADHIS are 1,2,3,4,6,7,8,15,16,17. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6, 7.



## Data Format 105 V3

## Bull Pedigree Record (incorporates NASIS file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 3
<b>Bull Identity</b>					
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
<b>Pedigree Details</b>					
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
<b>NASIS Bull Details</b>					
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Genetic Codes	173	8x3	A	Up to 8 three-character codes - see note 10
20	NASIS Active Sire Code	197	1	A	A = active, R = restricted, W = warning of a possible conflict with the ID of another bull, blank = not active
21	Common name 1	198	12	A	Name used in marketing of bull
22	Common name 2	210	12	A	Name used in marketing of bull
23	Date Sexed Semen Available	222	8	N	yyyymmdd(blank=no sexed semen available)

RECORD LENGTH = 229 bytes

### International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

Essential fields for ADHIS are 1, 2, 3, 8. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order: Fields 1, 2, 3.

## Data Format 106 V1

## Workability Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 106
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Parity	35	2	N	Parity is the lactation number, if known. It is the number of lactations produced by the cow, whether recorded or otherwise.
<b>Cow parameters</b>					
8	Likability	37	1	A	See note below
9	Temperament	38	1	A	See note below
10	Milking Speed	39	1	A	See note below

RECORD LENGTH = 39 bytes

<u>Likability</u>	
(All things being equal, would you like more cows like this one in your herd?)	
A	Very Definitely (One of the best cows in the herd)
B	Definitely (Well liked cow)
C	Probably (Satisfactory cow)
D	Probably not (Do not like the cow)
E	Definitely not (Plan to sell the cow)
<u>Temperament</u>	
A	Placid
B	Quiet
C	Average
D	Nervous
E	Very Nervous
<u>Milking Speed</u>	
A	Very Fast
B	Fast
C	Average
D	Slow
E	Very Slow

Essential fields for ADHIS are 1,2,3,4,6,8,9,10. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 6.

**Data Format 107 V1**

**Herd Test Day Production Record**

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 107
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
4	Herd Test Visit Date	12	8	N	yyyymmdd
<b>Number of Cows</b>					
5	Total cows	20	4	N	
6	Fresh cows	24	4	N	
7	Terminated cows	28	4	N	
8	Cows cell counted	32	4	N	
<b>Herd Yield Averages</b>					
9	Milk yield	36	4	N	Units are litres x 10 (ie. 124 = 12.4 litres.)
10	Fat percentage	40	4	N	Percentage x 100 (ie. 450 = 4.50 %)
11	Protein percentage	44	4	N	Percentage x 100
12	Lactose percentage	48	4	N	Percentage x 100
13	Total solids percentage	52	4	N	Percentage x 100
14	Milk Urea Nitrogen	56	3	N	Milligrams per decilitre
15	Somatic Cell Count	59	6	N	Cell Count / 1000
16	Testing Frequency	65	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other

RECORD LENGTH = 65 bytes

This record is not used by ADHIS.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 108 V2

## Mating/Preg Test Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 108
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
<b>Mating / Preg Test Details</b>					
6	Date	27	8	N	yyyymmdd
7	Code	35	3	N	See mating codes below
8	Result	38	5	A	Free field for describing test result. For pregnancy diagnosis result (code 10,20,30), it is the number of days in calf.
<b>Mating Details</b>					
9	Mating Start Date	43	8	N	yyyymmdd at herd or individual cow level
10	Fresh semen used	51	1	A	Y = Yes, N = No
11	Semen straw split	52	1	N	Indicates the number of inseminations per straw, 1 = Not split, 2 = Split into two parts, 3 = Split into three parts
12	Bull National ID	53	9	A	See Note 3
13	Semen Batch Number	62	10	A	
14	Technician Code	72	7	A	A code for each AI-Centre Technician
<b>Embryo Transfer Donor ID</b>					
<b>Herd ID</b>					
15	National Herd ID	79	7	A	See Note 8
<b>Cow Details</b>					
16	National Cow ID	86	9	A	See Note 3
17	Within-Herd Cow ID	95	6	N	

RECORD LENGTH = 100 bytes

Essential fields for ADHIS are 1, 2, 3, 4, 6, 7, (if mating code (Field 7) = "1 - 8", field 10,11,12 are essential - if code = "1" or "6", field 14 is also essential - if code = "10, 20, 30", field 8 is essential)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

Mating codes on next page

**Mating/Preg Test event codes**

<b>ADHIS Code</b>	<b>Mating MNEMONIC</b>	<b>Mating Event Name</b>
<u>Mating Codes</u>		
1	MAP	Mating-AI-Centre Technician
2	MA	Mating-AI-DIY
3	MN	Mating-Natural
4	MNC	Mating-Natural Controlled
5	ME	Mating-Embryo Implanted
6	MAPS	Mating-AI-Centre Technician – Sexed Semen
7	MAS	Mating-AI-DIY – Sexed Semen
8	MS	Mating-Sync/Intervention
<u>Preg Test Codes</u>		
10	PD	Pregnancy Test
20	OS	Pregnancy Test using Confirm
30	US	Pregnancy Test using Ultrasound
<u>Heat Observation Codes</u>		
101	HO	Heat Observed With No Mating
102	HM	Heat - Multiple Ovulation / Flush

**Data Format 110 V2****Disclosure / Non-Disclosure Record**

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 110
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
4	Organisation with/without Authority	12	3	A	See Note 6
5	Date initiated	15	8	N	yyyymmdd
6	Disclosure	23	1	A	(Y = disclose data to Organisation, N = don't disclose data to Organisation)
7	DPC Code	24	1	A	Data Processing Centre - see Note 4 (leave blank if not provided by a DPC)

RECORD LENGTH = 24 bytes

The record exists to authorise ADHIS to disclose data for a herd to organisations other than the DPC which provided the data to ADHIS, or to prohibit ADHIS from disclosing data to other organisations.

All fields are essential for ADHIS.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

**Data Format 111 V1****Liveweight Record**

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 111
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Date of weighing	27	8	N	yyyymmdd
7	Liveweight	35	3	N	Units are kg
8	Condition score	38	2	N	Units are score x 10 (ie. 45 = 4.5 condition score)

RECORD LENGTH = 39 bytes

This record is not currently used by ADHIS.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 6.

## Data Format 112 V1

## Calving Ease Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 112
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
6	Calving Date	27	8	N	yyyymmdd
7	Parity	35	2	N	Parity is the lactation number, if known. It is the number of lactations produced by the cow, whether recorded or otherwise.
8	Last mating date	37	8	N	yyyymmdd - see note below
9	National ID of Sire of Calf	45	9	A	See Note 3
<b>Calving parameters</b>					
10	Calving Ease	54	1	A	See note below
11	Calving Code	55	1	A	0 or N=normal calving; 1 or I=induced calving; 2 or A=aborted; 3 or L=induced lactation
12	Sex of Calf	56	2	A	See note below
13	Size of Calf	58	1	A	See note below
14	Fate of Calf	59	2	A	See note below

RECORD LENGTH = 60 bytes

### Last mating Date

This is the last mating date, or estimated conception date, prior to the calving date shown in the record.

### Calving Ease

System introduced 2007

A	No difficulty
B	Slight difficulty
C	Moderate difficulty
D	High difficulty

System phased out from 2007

1 or X	Unobserved - not OK
2 or K	Unobserved - OK
3 or N	Observed - no assistance
4 or E	Observed - easy pull
5 or H	Observed - very difficult
6 or S	Observed - surgical
7 or M	Observed - malpresentation

### Size of Calf

H	Huge
B	Large
N	Average
S	Small
T	Tiny

### Sex of Calf

F	Female
M	Male
FF	Female Twins
MM	Male Twins
FM	One Female and One Male Twin
U	Undefined

### Fate of Calf

L	Live
D	Dead
LL	Live Twins
DD	Dead Twins
LD	One Live and One Dead Twin

Essential fields for ADHIS are 1,2,3,4,6,9,10,11,12,13,14. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.



## Data Format 114 V3

## Conformation Trait Record

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 3
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	Herdbook ID				
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
<b>Pedigree details</b>					
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by ADHIS if Dam ID is unavailable, and MGS is available)
<b>Lactation details</b>					
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
<b>Transfer Details</b>					
					See explanation below
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
<b>Classification Details</b>					
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	7x2	N	See next page for trait description - range 1-18
25	Linear Traits	169	25x1	N	See next page for trait description - range 1-9
26	Condition score	194	2	N	
27	Defects and severity	196	5x3	N	Two characters for each defect, one for severity
28	Extra Composite Traits	211	7x2	N	See next page for trait description - range 40-96
29	Condition score (range 1-9)	225	1	N	Not used by ADHIS
30	Condition score (score)	226	3	N	Not used by ADHIS
31	Number of times scored excellent	229	2	N	Not used by ADHIS

RECORD LENGTH = 230 bytes

Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.  
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Field 24 Composite Traits (range 1-18)

- 1 Overall Type
- 2 Mammary System
- 3 Feet and Legs
- 4 Dairy Strength
- 5 Rump
- 6 Unspecified, contact the relevant Breed Society
- 7 Unspecified, contact the relevant Breed Society

Field 25 Linear Traits - Range 1-9. Note that trait 16 (Rear Leg Rear View) is a new trait in 2001, 23 (Teat Placement Rear) and trait 25 (Front End Height) are new traits in 2002, and trait 14 (Heel Depth) is a new trait in 2007.

- 1 Stature
- 2 Udder Texture
- 3 Bone Quality
- 4 Angularity
- 5 Muzzle Width
- 6 Body Length
- 7 Body Depth
- 8 Loin Strength
- 9 Chest Width
- 10 Rump Length
- 11 Pin Width
- 12 Pin Set
- 13 Foot Angle
- 14 Heel Depth
- 15 Rear Set of Leg
- 16 Rear Leg Rear View
- 17 Udder Depth
- 18 Fore Attachment
- 19 Rear Attachment Height
- 20 Rear Attachment Width
- 21 Centre Ligament
- 22 Teat Placement Fore
- 23 Teat Placement Rear
- 24 Teat Length
- 25 Front End Height

Field 28 Extra Composite Traits (range 40-96) - Not used by ADHIS but measured on some cows.

- 1 Overall Type
- 2 Mammary System
- 3 Feet and Legs
- 4 Dairy Strength
- 5 Rump
- 6 Unspecified, contact the relevant Breed Society
- 7 Unspecified, contact the relevant Breed Society

## Data Format 115 V1

## International Cow Pedigree Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 115
2	Record Version Number	4	1	A	Value = 1
<b>Animal Identity</b>					
3	National ID Herdbook ID	5	9	A	See Note 3
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	International ID	29	19	A	Interbull format - see note below
7	Date of Birth	48	8	N	yyyymmdd
8	Breed	56	4	A	See Note 1
9	Name	60	40	A	
<b>Pedigree Details</b>					
10	Sire National ID	100	9	A	See Note 3
11	Dam National ID	109	9	A	See Note 3
12	MGS National ID	118	9	A	See Note 3

RECORD LENGTH = 126 bytes

This record exists to capture details on foreign cows for inclusion in the pedigree of bulls and cows used in Australia.

### International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

Essential fields are 1, 2, 3, 6. All other fields are strongly recommended.  
Assumed sort order with all fields in ascending order : Fields 1, 2, 3.

## Data Format 116 V1

## Herd Health Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 116
2	Record Version Number	4	1	A	Value = 1
	<b>Herd ID</b>				
3	National Herd ID	5	7	A	See Note 8
	<b>Cow Details</b>				
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
	<b>Health Event</b>				
6	Date	27	8	N	yyyymmdd
7	Health event code	35	5	N	See Note 7 for health event codes
8	Health treatment code	40	5	N	See Note 7 for health treatment codes
9	Result	45	5	A	Free field for describing test result.
10	Anatomical Position	50	3	N	000=unspecified, 300=multiple quarters or the sum of the following variables: 001=Left, 002=Right 010=Front, 020=Rear 100=Upper, 200=Lower
11	Person Type	53	1	A	F = Farmer, V = Vet
12	Remarks	54	30	A	

RECORD LENGTH =83 bytes

Essential fields for ADHIS are 1,2, 3, 4, 6, (6 or 7). Other fields are strongly recommended.  
Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 5, 7.

## Data Format 201 V5

## Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 5
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Genetic Codes	88	8x3	A	Up to 8 three-character codes (see note 10)
<b>Bull Details</b>					
10	Date of Birth	112	8	N	yyyymmdd
11	Sire National ID	120	9	A	see Note 3
12	Dam National ID	129	9	A	see Note 3
13	MGS National ID	138	9	A	see Note 3
<b>ABV Analysis Details</b>					
14	Breed of ABV Analysis	147	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	148	8	N	yyyymmdd
16	Source of ABV Analysis	156	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
<b>Balanced Performance Index (BPI)</b>					
17	Balanced Performance Index	157	4	N	
18	Reliability BPI	161	2	N	
<b>ABVs for Production Traits</b>					
19	Australian Selection Index	163	4	N	
20	Protein	167	4	N	
21	Protein Percentage	171	5	N	Two decimal places (eg, -0.12)
22	Milk	176	5	N	
23	Fat	181	4	N	
24	Fat Percentage	185	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
25	Reliability	190	2	N	
26	Number of Daughters	192	6	N	
27	Number of Herds	198	5	N	
28	Number in Herd - most Daughters	203	4	N	
29	Number in Herd - 2nd most Daughters	207	4	N	
30	Records in progress (RIP%)	211	3	N	% of daughters with < 4 test days in 1 <sup>st</sup> lactation
<b>ABVs for Conformation Traits</b>					
31	Overall Type	214	3	N	
32	Mammary System	217	3	N	
33	Overall Feet & Legs	220	3	N	
34	Stature	223	3	N	
35	Udder Texture	226	3	N	
36	Bone Quality	229	3	N	
37	Angularity	232	3	N	
38	Muzzle Width	235	3	N	
39	Body Length	238	3	N	
40	Body Depth	241	3	N	
41	Loin Strength	244	3	N	
42	Chest Width	247	3	N	
43	Rump Length	250	3	N	

44	Pin Width	253	3	N	
45	Pin Set	256	3	N	
46	Foot Angle	259	3	N	
47	Heel Depth	262	3	N	
48	Rear Set of Leg	265	3	N	
49	Rear Leg Rear View	268	3	N	
50	Udder Depth	271	3	N	
51	Fore Attachment	274	3	N	
52	Rear Attachment Height	277	3	N	
53	Rear Attachment Width	280	3	N	
54	Centre Ligament	283	3	N	
55	Teat Placement Fore	286	3	N	
56	Teat Placement Rear (new trait)	289	3	N	
57	Teat Length	292	3	N	
58	Condition Score	295	3	N	
	<b>Amount of data for Conformation Traits (average of key traits)</b>				
59	Reliability	298	2	N	
60	Number of Daughters	300	6	N	
61	Number of Herds	306	5	N	
	<b>ABVs for Workability Traits</b>				
62	ABV Milking Speed	311	3	N	
63	ABV Temperament	314	3	N	
64	ABV Likability	317	3	N	
	<b>Amount of data for Workability Traits</b>				
65	Reliability Workability Traits	320	2	N	
66	Number of Daughters	322	6	N	
67	Number of Herds	328	5	N	
	<b>ABV and Reliability for Survival</b>				
68	ABV Survival	333	3	N	
69	Reliability Survival	336	2	N	
	<b>ABV for Calving Ease</b>				
70	ABV Calving Ease	338	3	N	
	<b>Amount of data for Calving Ease</b>				
71	Reliability Calving Ease	341	2	N	
72	Number of Calvings	343	6	N	
73	Number of Herds	349	5	N	
	<b>ABV for Cell Count</b>				
74	ABV Somatic Cell Count	354	3	N	
	<b>Amount of data for Cell Count</b>				
75	Reliability Cell Count	357	2	N	
76	Number of Daughters	359	6	N	
77	Number of Herds	365	5	N	
	<b>ABV for Daughter Fertility</b>				
78	ABV Daughter Fertility	370	3	N	
	<b>Amount of data for Daughter Fertility</b>				
79	Reliability Daughter Fertility	373	2	N	
80	Number of Daughters	375	6	N	
81	Number of Herds	381	5	N	
	<b>ABV for Liveweight</b>				
82	ABV Liveweight (kg)	386	3	N	
	<b>Amount of data for Liveweight</b>				
83	Reliability Liveweight	389	2	N	
	<b>Genomics Evaluation</b>				
84	Genomics Evaluation	391	1	A	g=genomics included, blank otherwise
	<b>Health Weighted Index (HWI)</b>				
85	Health Weighted Index	392	4	N	
86	Reliability HWI	396	2	N	
	<b>Type Weighted Index (TWI)</b>				
87	Type Weighted Index	398	4	N	

88	Reliability TWI	402	2	N
	<b>ABVs for New Traits</b>			
89	ABV Residual Survival	404	3	N
90	Reliability Residual Survival	407	2	N
91	ABV Feed Efficiency	409	5	N
92	Reliability Feed Efficiency	414	2	N

---

RECORD LENGTH = 415 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

## Data Format 202 V2

## Cow ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 202
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See DIF Document Note 8
<b>Cow Identity</b>					
4	National ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
<b>Herdbook ID</b>					
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	Genetic Codes	42	8x3	A	Up to 8 three-character codes (see note 10)
<b>Cow Details</b>					
9	Breed of cow	66	4	A	See Note 1
10	Date of Birth	70	8	N	yyyymmdd
11	Date of Latest Calving	78	8	N	yyyymmdd
12	Number of Lactations in ABV analysis	86	2	N	
13	Crossbreed	88	1	A	'X' if crossbreed, otherwise space
14	DPC Code	89	1	A	See Note 4
<b>Pedigree details</b>					
15	Sire National ID	90	9	A	see Note 3
16	Dam National ID	99	9	A	see Note 3
17	MGS National ID	108	9	A	see Note 3
<b>ABV Analysis Details</b>					
18	Breed of ABV Analysis	117	1	A	single character breed code - see Note 1
19	Date of ABV Analysis	118	8	N	yyyymmdd
20	Source of ABV Analysis	126	1	A	A = ABV, I = ABV(i)
<b>Balanced Performance Index (BPI)</b>					
21	Balanced Performance Index	127	4	N	
22	Reliability BPI	131	2	N	
<b>ABVs for Production Traits</b>					
23	Australian Selection Index	133	4	N	
24	Protein	137	4	N	
25	Protein Percentage	141	5	N	Two decimal places (eg, -0.12)
26	Milk	146	5	N	
27	Fat	151	4	N	
28	Fat Percentage	155	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
29	Reliability	160	2	N	
<b>ABVs for Conformation Traits</b>					
30	Overall Type	162	3	N	
31	Mammary System	165	3	N	
32	Overall Feet & Legs	168	3	N	
33	Stature	171	3	N	
34	Udder Texture	174	3	N	
35	Bone Quality	177	3	N	
36	Angularity	180	3	N	
37	Muzzle Width	183	3	N	
38	Body Length	186	3	N	
39	Body Depth	189	3	N	
40	Loin Strength	192	3	N	
41	Chest Width	195	3	N	
42	Rump Length	198	3	N	
43	Pin Width	201	3	N	



44	Pin Set	204	3	N
45	Foot Angle	207	3	N
46	Heel Depth	210	3	N
47	Rear Set of Leg	213	3	N
48	Rear Leg Rear View	216	3	N
49	Udder Depth	219	3	N
50	Fore Attachment	222	3	N
51	Rear Attachment Height	225	3	N
52	Rear Attachment Width	228	3	N
53	Centre Ligament	231	3	N
54	Teat Placement Fore	234	3	N
55	Teat Placement Rear (new trait)	237	3	N
56	Teat Length	240	3	N
57	Condition Score	243	3	N
	<b>Amount of data for Conformation Traits (average of key traits)</b>			
58	Reliability	246	2	N
	<b>ABVs and Reliability for Workability Traits</b>			
59	ABV Milking Speed	248	3	N
60	ABV Temperament	251	3	N
61	ABV Likability	254	3	N
62	Reliability Workability Traits	257	2	N
	<b>ABV and Reliability for Survival</b>			
63	ABV Survival	259	3	N
64	Reliability Survival	262	2	N
	<b>ABV and Reliability for Calving Ease</b>			
65	ABV Calving Ease	264	3	N
66	Reliability Calving Ease	267	2	N
	<b>ABV and Reliability for Cell Count</b>			
67	ABV Somatic Cell Count	269	3	N
68	Reliability Cell Count	272	2	N
	<b>ABV and Reliability for Daughter Fertility</b>			
69	ABV Daughter Fertility	274	3	N
70	Reliability Daughter Fertility	277	2	N
	<b>ABV and Reliability for Liveweight</b>			
71	ABV Liveweight (kg)	279	3	N
72	Reliability Liveweight	282	2	N
	<b>Genomic Evaluation</b>			
73	Genomic evaluation	284	1	A
	<b>Health Weighted Index (HWI)</b>			
74	Health Weighted Index	285	4	N
75	Reliability HWI	289	2	N
	<b>Type Weighted Index (TWI)</b>			
76	Type Weighted Index	291	4	N
77	Reliability TWI	295	2	N
	<b>ABVs for New Traits</b>			
78	ABV Residual Survival	297	3	N
79	Reliability Residual Survival	300	2	N
80	ABV Feed Efficiency	302	5	N
81	Reliability Feed Efficiency	307	2	N

g=genomics included, blank otherwise

RECORD LENGTH = 308 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

## Data Format 211 V3

## Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 3
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
Herdbook ID					
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
<b>Cow Details</b>					
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
<b>Pedigree details</b>					
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
<b>ABV Analysis Details</b>					
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=ADHIS, I=Interbull
<b>Balanced Performance Index (BPI)</b>					
20	Balanced Performance Index	103	4	N	
21	Reliability BPI	107	2	N	
<b>ABVs for Production Traits</b>					
22	Australian Selection Index (ASI)	109	4	N	
23	Protein	113	4	N	
24	Protein Percentage	117	5	N	Two decimal places (eg, -0.12)
25	Milk	122	5	N	
26	Fat	127	4	N	
27	Fat Percentage	131	5	N	Two decimal places (eg, -0.12)
28	Reliability	136	2	N	
29	Rank in Australia on ASI within-breed	138	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
30	Rank in Australia on BPI within-breed	144	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
31	Genomic Evaluation	150	1	A	g = genomics included
<b>Health Weighted Index (HWI)</b>					
32	Health Weighted Index	151	4	N	
33	Reliability HWI	155	2	N	
<b>Type Weighted Index (TWI)</b>					
34	Type Weighted Index	157	4	N	
35	Reliability TWI	161	2	N	

### Index Ranking

36	Rank in Australia on HWI within-breed	163	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
37	Rank in Australia on TWI within-breed	169	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.

---

RECORD LENGTH = 174 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 212 V3

## Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 3
	<b>Herd ID</b>				
3	National Herd ID	5	7	A	See Note 8
	<b>Herd Details</b>				
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 9)
7	Age Class Code	23	2	A	See note below
	<b>ABV Analysis Details</b>				
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=ADHIS, I=Interbull
	<b>Herd Average ABVs for Production Traits</b>				
11	Balanced Performance Index (BPI)	35	6	N	One decimal place (eg, -123.4)
12	Australian Selection Index (ASI)	41	6	N	One decimal place (eg, -123.4)
13	Protein	47	6	N	One decimal place (eg, -12.4)
14	Protein Percentage	53	6	N	Three decimal places (eg, -0.123)
15	Milk	59	7	N	One decimal place (eg, -1234.5)
16	Fat	66	6	N	One decimal place (eg, -12.4)
17	Fat Percentage	72	6	N	Three decimal places (eg, -0.123)
18	Rank of Herd on BPI	78	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
19	Rank of Herd on ASI	84	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
20	Health Weighted Index (HWI)	90	6	N	One decimal place (eg, -123.4)
21	Type Weighted Index (TWI)	96	6	N	One decimal place (eg, -123.4)
	<b>Index Ranking</b>				
22	Rank of Herd on HWI	102	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
23	Rank of Herd on TWI	108	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.

RECORD LENGTH = 123 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months
2S	Senior 2	Over 30 and up to 36 months

3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 8, 7.

## Data Format 251 V6

## Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 6
	<b>Bull Identity</b>				
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
	<b>Herdbook ID</b>				
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Genetic Codes	107	8x3	A	Up to 8 three-character codes (see note 10)
	<b>Bull Details</b>				
11	Date of Birth	131	8	N	yyyymmdd
12	Sire National ID	139	9	A	see Note 3
13	Dam National ID	148	9	A	see Note 3
14	MGS National ID	157	9	A	see Note 3
15	MGD National ID	166	9	A	see Note 3
16	Sire International ID	175	19	A	Interbull format
17	Dam International ID	194	19	A	Interbull format
18	MGS International ID	213	19	A	Interbull format
19	MGD International ID	232	19	A	Interbull format
	<b>International Proof Details</b>				
20	Type of Proof	251	2	N	Interbull codes – see note below
21	Includes Foreign Proof	253	1	A	"Y = information from another country is incorporated in national proof, N otherwise"
22	Birth Date of First Australian Daughter	254	8	N	yyyymmdd
	<b>Balanced Performance Index (BPI)</b>				
23	Balanced Performance Index	262	4	N	
24	Reliability BPI	266	2	N	
	<b>Main Components of BPI (Components expressed in dollar unit values)</b>				
25	Protein	268	4	N	
26	Milk	272	4	N	
27	Fat	276	4	N	
28	Milking Speed	280	4	N	
29	Temperament	284	4	N	
30	Residual Survival	288	4	N	
31	Somatic Cell Count	292	4	N	
32	Feed Efficiency	296	4	N	
33	Daughter Fertility	300	4	N	
34	Mammary System	304	4	N	
35	Overall Type	308	4	N	
36	Udder depth	312	4	N	
37	Pin Set	316	4	N	
	<b>Components of Survival Index</b>				
38	Survival	320	4	N	
39	Likability	324	4	N	
40	Overall Type	328	4	N	
41	Udder Depth	332	4	N	
42	Pin Set	336	4	N	
	<b>Components of Liveweight</b>				
43	Stature	340	4	N	
44	Body depth	344	4	N	

45	Chest width	348	4	N	
<b>ABVs for Production Traits</b>					
46	Australian Selection Index	352	4	N	
47	Protein	356	4	N	
48	Protein Percentage	360	5	N	"Two decimal places (eg -0.12)"
49	Milk	365	5	N	
50	Fat	370	4	N	
51	Fat Percentage	374	5	N	"Two decimal places (eg -0.12)"
<b>Amount of data for Production Traits</b>					
52	Reliability	379	2	N	
53	Number of Daughters	381	6	N	
54	Number of Herds	387	5	N	
55	Number of Effective Daughters	392	6	N	
56	Number in Herd - most Daughters	398	4	N	
57	Number in Herd - 2nd most Daughters	402	4	N	
58	Records in Progress (RIP%)	406	3	N	% of daughters with < 4 test days in 1st lactation
<b>International Daughter Numbers for Production Traits</b>					
59	Number of Countries With Daughters	409	2	N	
60	Country With Most Daughters	411	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	414	6	N	
62	Country With Second Most Daughters	420	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	423	6	N	
64	Country With Third Most Daughters	429	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	432	6	N	
66	Country With Fourth Most Daughters	438	3	A	see note 2 for list of country codes
67	Number of Daughters in This Country	441	6	N	
68	Country With Fifth Most Daughters	447	3	A	see note 2 for list of country codes
69	Number of Daughters in This Country	450	6	N	
<b>ABV Analysis Details for Production Traits</b>					
70	Breed of ABV Analysis	456	1	A	single character breed code - see Note 1
71	Date of ABV Analysis	457	8	N	yyyymmdd
72	Source of ABV Analysis	465	1	A	"A = ABV, I = ABV(i)"
73	Proof publishable	466	1	A	"P = publishable, U = unpublishable"
74	Foreign proof contribution	467	1	A	"A = Aus only, I = International only, B = both"
<b>ABVs for Conformation Traits</b>					
75	Overall Type	468	3	N	
76	Overall Feet and Legs	471	3	N	
77	Mammary System	474	3	N	
78	Stature	477	3	N	
79	Udder Texture	480	3	N	
80	Bone Quality	483	3	N	
81	Angularity	486	3	N	
82	Muzzle Width	489	3	N	
83	Body Length	492	3	N	
84	Body Depth	495	3	N	
85	Chest Width	498	3	N	
86	Rump Length	501	3	N	
87	Pin Width	504	3	N	
88	Pin Set	507	3	N	
89	Foot Angle	510	3	N	
90	Rear Set of Leg	513	3	N	
91	Rear Leg Rear View	516	3	N	
92	Heel Depth	519	3	N	
93	Udder Depth	522	3	N	
94	Fore Attachment	525	3	N	
95	Rear Attachment Height	528	3	N	
96	Rear Attachment Width	531	3	N	

97	Centre Ligament	534	3	N
98	Teat Placement Fore	537	3	N
99	Teat Length	540	3	N
100	Loin Strength	543	3	N
101	Front End Height	546	3	N
102	Teat Placement Rear	549	3	N
103	Condition Score	552	3	N
	<b>Amount of data for old Conformation Traits</b>			
104	Reliability	555	2	N
105	Number of Daughters	557	6	N
106	Number of Herds	563	5	N
107	Number of Effective Daughters	568	6	N
	<b>Amount of data for Overall Type</b>			
108	Reliability	574	2	N
109	Number of Daughters	576	6	N
110	Number of Herds	582	5	N
111	Number of Effective Daughters	587	6	N
	<b>Amount of data for Mammary System</b>			
112	Reliability	593	2	N
113	Number of Daughters	595	6	N
114	Number of Herds	601	5	N
115	Number of Effective Daughters	606	6	N
	<b>Amount of data for Stature</b>			
116	Reliability	612	2	N
117	Number of Daughters	614	6	N
118	Number of Herds	620	5	N
119	Number of Effective Daughters	625	6	N
	<b>Amount of data for Udder Texture</b>			
120	Reliability	631	2	N
121	Number of Daughters	633	6	N
122	Number of Herds	639	5	N
123	Number of Effective Daughters	644	6	N
	<b>Amount of data for Bone Quality</b>			
124	Reliability	650	2	N
125	Number of Daughters	652	6	N
126	Number of Herds	658	5	N
127	Number of Effective Daughters	663	6	N
	<b>Amount of data for Angularity</b>			
128	Reliability	669	2	N
129	Number of Daughters	671	6	N
130	Number of Herds	677	5	N
131	Number of Effective Daughters	682	6	N
	<b>Amount of data for Muzzle Width</b>			
132	Reliability	688	2	N
133	Number of Daughters	690	6	N
134	Number of Herds	696	5	N
135	Number of Effective Daughters	701	6	N
	<b>Amount of data for Body Length</b>			
136	Reliability	707	2	N
137	Number of Daughters	709	6	N
138	Number of Herds	715	5	N
139	Number of Effective Daughters	720	6	N
	<b>Amount of data for Body Depth</b>			
140	Reliability	726	2	N
141	Number of Daughters	728	6	N
142	Number of Herds	734	5	N
143	Number of Effective Daughters	739	6	N
	<b>Amount of data for Chest Width</b>			
144	Reliability	745	2	N



145	Number of Daughters	747	6	N
146	Number of Herds	753	5	N
147	Number of Effective Daughters	758	6	N
	<b>Amount of data for Rump Length</b>			
148	Reliability	764	2	N
149	Number of Daughters	766	6	N
150	Number of Herds	772	5	N
151	Number of Effective Daughters	777	6	N
	<b>Amount of data for Pin Width</b>			
152	Reliability	783	2	N
153	Number of Daughters	785	6	N
154	Number of Herds	791	5	N
155	Number of Effective Daughters	796	6	N
	<b>Amount of data for Pin Set</b>			
156	Reliability	802	2	N
157	Number of Daughters	804	6	N
158	Number of Herds	810	5	N
159	Number of Effective Daughters	815	6	N
	<b>Amount of data for Foot Angle</b>			
160	Reliability	821	2	N
161	Number of Daughters	823	6	N
162	Number of Herds	829	5	N
163	Number of Effective Daughters	834	6	N
	<b>Amount of data for Rear Set of Leg</b>			
164	Reliability	840	2	N
165	Number of Daughters	842	6	N
166	Number of Herds	848	5	N
167	Number of Effective Daughters	853	6	N
	<b>Amount of data for Rear Leg Rear View</b>			
168	Reliability	859	2	N
169	Number of Daughters	861	6	N
170	Number of Herds	867	5	N
171	Number of Effective Daughters	872	6	N
	<b>Amount of data for Udder Depth</b>			
172	Reliability	878	2	N
173	Number of Daughters	880	6	N
174	Number of Herds	886	5	N
175	Number of Effective Daughters	891	6	N
	<b>Amount of data for Fore Attachment</b>			
176	Reliability	897	2	N
177	Number of Daughters	899	6	N
178	Number of Herds	905	5	N
179	Number of Effective Daughters	910	6	N
	<b>Amount of data for Rear Attachment Height</b>			
180	Reliability	916	2	N
181	Number of Daughters	918	6	N
182	Number of Herds	924	5	N
183	Number of Effective Daughters	929	6	N
	<b>Amount of data for Rear Attachment Width</b>			
184	Reliability	935	2	N
185	Number of Daughters	937	6	N
186	Number of Herds	943	5	N
187	Number of Effective Daughters	948	6	N
	<b>Amount of data for Centre Ligament</b>			
188	Reliability	954	2	N
189	Number of Daughters	956	6	N
190	Number of Herds	962	5	N
191	Number of Effective Daughters	967	6	N
	<b>Amount of data for Teat Placement Fore</b>			

192	Reliability	973	2	N	
193	Number of Daughters	975	6	N	
194	Number of Herds	981	5	N	
195	Number of Effective Daughters	986	6	N	
<b>Amount of data for Teat Length</b>					
196	Reliability	992	2	N	
197	Number of Daughters	994	6	N	
198	Number of Herds	1000	5	N	
199	Number of Effective Daughters	1005	6	N	
<b>Amount of data for Loin Strength</b>					
200	Reliability	1011	2	N	
201	Number of Daughters	1013	6	N	
202	Number of Herds	1019	5	N	
203	Number of Effective Daughters	1024	6	N	
<b>Amount of data for Front End Height</b>					
204	Reliability	1030	2	N	
205	Number of Daughters	1032	6	N	
206	Number of Herds	1038	5	N	
207	Number of Effective Daughters	1043	6	N	
<b>Amount of data for Teat Placement Rear</b>					
208	Reliability	1049	2	N	
209	Number of Daughters	1051	6	N	
210	Number of Herds	1057	5	N	
211	Number of Effective Daughters	1062	6	N	
<b>Amount of data for Condition Score</b>					
212	Reliability	1068	2	N	
213	Number of Daughters	1070	6	N	
214	Number of Herds	1076	5	N	
215	Number of Effective Daughters	1081	6	N	
<b>International Daughter Numbers for Conformation Traits</b>					
216	Number of Countries With Daughters	1087	2	N	
217	Country With Most Daughters	1089	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	1092	6	N	
219	Country With Second Most Daughters	1098	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	1101	6	N	
221	Country With Third Most Daughters	1107	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	1110	6	N	
223	Country With Fourth Most Daughters	1116	3	A	see note 2 for list of country codes
224	Number of Daughters in This Country	1119	6	N	
225	Country With Fifth Most Daughters	1125	3	A	see note 2 for list of country codes
226	Number of Daughters in This Country	1128	6	N	
<b>ABV Analysis Details for Conformation Traits</b>					
227	Breed of ABV Analysis	1134	1	A	single character breed code - see Note 1
228	Date of ABV Analysis	1135	8	N	yyyymmdd
229	Source of ABV Analysis	1143	1	A	"A = ABV, I = ABV(i)"
230	Proof publishable	1144	1	A	"P = publishable, U = unpublishable"
231	Foreign proof contribution	1145	1	A	"A = Aus only, I = International only, B = both"
<b>ABVs for Workability Traits</b>					
232	ABV Milking Speed	1146	3	N	
233	ABV Temperament	1149	3	N	
234	ABV Likability	1152	3	N	
<b>Amount of data for Workability Traits</b>					
235	Reliability Workability Traits	1155	2	N	
236	Number of Daughters	1157	6	N	
237	Number of Herds	1163	5	N	
238	Number of Effective Daughters	1168	6	N	
<b>International Daughter Numbers for Workability Traits</b>					
239	Number of Countries With Daughters	1174	2	N	
240	Country With Most Daughters	1176	3	A	see note 2 for list of country codes

241	Number of Daughters in This Country	1179	6	N	
242	Country With Second Most Daughters	1185	3	A	see note 2 for list of country codes
243	Number of Daughters in This Country	1188	6	N	
244	Country With Third Most Daughters	1194	3	A	see note 2 for list of country codes
245	Number of Daughters in This Country	1197	6	N	
246	Country With Fourth Most Daughters	1203	3	A	see note 2 for list of country codes
247	Number of Daughters in This Country	1206	6	N	
248	Country With Fifth Most Daughters	1212	3	A	see note 2 for list of country codes
249	Number of Daughters in This Country	1215	6	N	
	<b>ABV Analysis Details for Workability Traits</b>				
250	Breed of ABV Analysis	1221	1	A	single character breed code - see Note 1
251	Date of ABV Analysis	1222	8	N	yyyymmdd
252	Source of ABV Analysis	1230	1	A	"A = ABV, I = ABV(i)"
253	Proof publishable	1231	1	A	"P = publishable, U = unpublishable"
254	Foreign proof contribution	1232	1	A	"A = Aus only, I = International only, B = both"
	<b>ABV and Reliability for Survival</b>				
255	Survival Solution	1233	3	N	
256	Reliability Survival Solution	1236	2	N	
257	ABV Survival	1238	3	N	
258	Reliability Survival	1241	2	N	
259	Number of Daughters	1243	6	N	
260	Number of Herds	1249	5	N	
261	Number of Effective Daughters	1254	6	N	
	<b>International Daughter Numbers for Survival</b>				
262	Number of Countries With Daughters	1260	2	N	
263	Country With Most Daughters	1262	3	A	see note 2 for list of country codes
264	Number of Daughters in This Country	1265	6	N	
265	Country With Second Most Daughters	1271	3	A	see note 2 for list of country codes
266	Number of Daughters in This Country	1274	6	N	
267	Country With Third Most Daughters	1280	3	A	see note 2 for list of country codes
268	Number of Daughters in This Country	1283	6	N	
269	Country With Fourth Most Daughters	1289	3	A	see note 2 for list of country codes
270	Number of Daughters in This Country	1292	6	N	
271	Country With Fifth Most Daughters	1298	3	A	see note 2 for list of country codes
272	Number of Daughters in This Country	1301	6	N	
	<b>ABV Analysis Details for Survival</b>				
273	Breed of ABV Analysis	1307	1	A	single character breed code - see Note 1
274	Date of ABV Analysis	1308	8	N	yyyymmdd
275	Source of ABV Analysis	1316	1	A	"A = ABV, I = ABV(i)"
276	Proof publishable	1317	1	A	"P = publishable, U = unpublishable"
277	Foreign proof contribution	1318	1	A	"A = Aus only, I = International only, B = both"
	<b>ABV for Calving Ease</b>				
278	ABV Calving Ease	1319	3	N	
	<b>Amount of data for Calving Ease</b>				
279	Reliability Calving Ease	1322	2	N	
280	Number of Calvings	1324	6	N	
281	Number of Herds	1330	5	N	
282	Number of Effective Calvings	1335	6	N	
	<b>International Daughter Numbers for Calving Ease</b>				
283	Number of Countries With Daughters	1341	2	N	
284	Country With Most Daughters	1343	3	A	see note 2 for list of country codes
285	Number of Daughters in This Country	1346	6	N	
286	Country With Second Most Daughters	1352	3	A	see note 2 for list of country codes
287	Number of Daughters in This Country	1355	6	N	
288	Country With Third Most Daughters	1361	3	A	see note 2 for list of country codes
289	Number of Daughters in This Country	1364	6	N	
290	Country With Fourth Most Daughters	1370	3	A	see note 2 for list of country codes
291	Number of Daughters in This Country	1373	6	N	
292	Country With Fifth Most Daughters	1379	3	A	see note 2 for list of country codes

293	Number of Daughters in This Country	1382	6	N	
<b>ABV Analysis Details for Calving Ease</b>					
294	Breed of ABV Analysis	1388	1	A	single character breed code - see Note 1
295	Date of ABV Analysis	1389	8	N	yyyymmdd
296	Source of ABV Analysis	1397	1	A	"A = ABV, I = ABV(i)"
297	Proof publishable	1398	1	A	"P = publishable, U = unpublishable"
298	Foreign proof contribution	1399	1	A	"A = Aus only, I = International only, B = both"
<b>ABV for Somatic Cell Count</b>					
299	ABV Somatic Cell Count	1400	4	N	
<b>Amount of data for Somatic Cell Count</b>					
300	Reliability Somatic Cell Count	1404	2	N	
301	Number of Daughters	1406	6	N	
302	Number of Herds	1412	5	N	
303	Number of Effective Daughters	1417	6	N	
<b>International Daughter Numbers for Somatic Cell Count</b>					
304	Number of Countries With Daughters	1423	2	N	
305	Country With Most Daughters	1425	3	A	see note 2 for list of country codes
306	Number of Daughters in This Country	1428	6	N	
307	Country With Second Most Daughters	1434	3	A	see note 2 for list of country codes
308	Number of Daughters in This Country	1437	6	N	
309	Country With Third Most Daughters	1443	3	A	see note 2 for list of country codes
310	Number of Daughters in This Country	1446	6	N	
311	Country With Fourth Most Daughters	1452	3	A	see note 2 for list of country codes
312	Number of Daughters in This Country	1455	6	N	
313	Country With Fifth Most Daughters	1461	3	A	see note 2 for list of country codes
314	Number of Daughters in This Country	1464	6	N	
<b>ABV Analysis Details for Somatic Cell Count</b>					
315	Breed of ABV Analysis	1470	1	A	single character breed code - see Note 1
316	Date of ABV Analysis	1471	8	N	yyyymmdd
317	Source of ABV Analysis	1479	1	A	"A = ABV, I = ABV(i)"
318	Proof publishable	1480	1	A	"P = publishable, U = unpublishable"
319	Foreign proof contribution	1481	1	A	"A = Aus only, I = International only, B = both"
<b>ABV and Reliability for Liveweight</b>					
320	ABV Liveweight	1482	4	N	
321	Reliability Liveweight	1486	2	N	
<b>ABV Analysis Details for Liveweight</b>					
322	Breed of ABV Analysis	1488	1	A	single character breed code - see Note 1
323	Date of ABV Analysis	1489	8	N	yyyymmdd
324	Source of ABV Analysis	1497	1	A	"A = ABV, I = ABV(i)"
325	Proof publishable	1498	1	A	"P = publishable, U = unpublishable",
326	Foreign proof contribution	1499	1	A	"A = Aus only, I = International only, B = both"
<b>ABV for Cow Fertility</b>					
327	ABV Cow Fertility	1500	4	N	Provisional
<b>Amount of data for Cow Fertility</b>					
328	Reliability Cow Fertility	1504	2	N	Provisional
329	Number of Daughters	1506	6	N	
330	Number of Herds	1512	5	N	
331	Number of Effective Daughters	1517	6	N	
<b>International Daughter Numbers for Cow Fertility</b>					
332	Number of Countries With Daughters	1523	2	N	
333	Country With Most Daughters	1525	3	A	see note 2 for list of country codes
334	Number of Daughters in This Country	1528	6	N	
335	Country With Second Most Daughters	1534	3	A	see note 2 for list of country codes
336	Number of Daughters in This Country	1537	6	N	
337	Country With Third Most Daughters	1543	3	A	see note 2 for list of country codes
338	Number of Daughters in This Country	1546	6	N	
339	Country With Fourth Most Daughters	1552	3	A	see note 2 for list of country codes
340	Number of Daughters in This Country	1555	6	N	
341	Country With Fifth Most Daughters	1561	3	A	see note 2 for list of country codes

342	Number of Daughters in This Country	1564	6	N	
<b>ABV Analysis Details for Cow Fertility</b>					
343	Breed of ABV Analysis	1570	1	A	single character breed code - see Note 1
344	Date of ABV Analysis	1571	8	N	yyyymmdd
345	Source of ABV Analysis	1579	1	A	"A = ABV, I = ABV(i)"
346	Proof publishable	1580	1	A	"P = publishable, U = unpublishable"
347	Foreign proof contribution	1581	1	A	"A = Aus only, I = International only, B = both"
<b>Genomic Evaluation</b>					
348	Genomics Evaluation	1582	1	A	g=genomics included, blank otherwise
<b>Health Weighted Index (HWI)</b>					
349	Health Weighted Index	1583	4	N	
350	Reliability HWI	1587	2	N	
<b>Type Weighted Index (TWI)</b>					
351	Type Weighted Index	1589	4	N	
352	Reliability TWI	1593	2	N	
<b>ABVs for New Traits</b>					
353	ABV Residual Survival	1595	3	N	
354	Reliability Residual Survival	1598	2	N	
355	ABV Feed Efficiency	1600	5	N	
356	Reliability Feed Efficiency	1605	2	N	

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RECORD LENGTH = 1606 bytes

Type of Proof

- 00 unknown
- 11 based on first crop sampling daughters
- 12 based on first and second crop daughters
- 21 based on imported semen of proven bull (second crop daughters only)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

## Data Format 261 V2

## Cow ABVs for All Traits (extended file)\*

(\*ADHIS Internal Use Only)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 261
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See DIF Document Note 8
<b>Cow Identity</b>					
4	National ID	12	9	A	See DIF Document Note 3
5	Within-Herd Cow ID	21	6	N	
<b>Herdbook ID</b>					
6	Country Code	27	3	A	See DIF Document Note 2
7	Herdbook Number	30	12	A	See DIF Document Note 2
8	International ID	42	19	A	Interbull format – see DIF Document Note 10
9	Name	61	40	A	
10	Genetic Codes	101	15	A	Up to 8 three-character codes (see note 10)
<b>Cow Details</b>					
11	Breed of cow	116	4	A	See DIF Document Note 1
12	Date of Birth	120	8	N	yyyymmdd
13	Date of Latest Calving	128	8	N	yyyymmdd
14	Number of Lactations in ABV analysis	136	2	N	
15	Crossbreed	138	1	A	'X' if crossbreed, otherwise space
16	DPC Code	139	1	A	See DIF Document Note 4
<b>Pedigree Details</b>					
17	Sire National ID	140	9	A	see DIF Document Note 3
18	Dam National ID	149	9	A	see DIF Document Note 3
19	MGS National ID	158	9	A	see DIF Document Note 3
20	MGD National ID	167	9	A	see DIF Document Note 3
21	Sire International ID	176	19	A	Interbull format – see DIF Document Note 10
22	Dam International ID	195	19	A	Interbull format – see DIF Document Note 10
23	MGS International ID	214	19	A	Interbull format – see DIF Document Note 10
24	MGD International ID	233	19	A	Interbull format – see DIF Document Note 10
25	Sire Nasid Bull ID	252	12	A	
26	MGS Nasid Bull ID	264	12	A	
<b>Rank within Australia</b>					
27	Rank within-breed on BPI	276	6	N	
28	Rank within-breed on ASI	282	6	N	
<b>Balanced Performance Index (BPI)</b>					
29	Balanced Performance Index	288	4	N	
30	Reliability BPI	292	2	N	
<b>ABVs for Production Traits</b>					
31	Australian Selection Index	294	4	N	
32	Protein	298	4	N	
33	Protein Percentage	302	5	N	Two decimal places (eg, -0.12)
34	Milk	307	5	N	
35	Fat	312	4	N	
36	Fat Percentage	316	5	N	Two decimal places (eg, -0.12)
<b>ABV Analysis Details for Production Traits</b>					
37	Reliability	321	2	N	
38	Breed of ABV Analysis	323	1	A	single char breed code - see DIF Document Note 1
39	Date of ABV Analysis	324	8	N	yyyymmdd
40	Source of ABV Analysis	332	1	A	A = ABV, I = ABV(i)
41	Proof publishable	333	1	A	P = publishable, U = unpublishable
42	Foreign proof contribution	334	1	A	A = Aus only, I = International only, B = both
<b>ABVs for Conformation Traits</b>					
43	Overall Type	335	3	N	
44	Mammary System	338	3	N	

45	Overall Feet and Legs	341	3	N	
46	Stature	344	3	N	
47	Udder Texture	347	3	N	
48	Bone Quality	350	3	N	
49	Angularity	353	3	N	
50	Muzzle Width	356	3	N	
51	Body Length	359	3	N	
52	Body Depth	362	3	N	
53	Loin Strength	365	3	N	
54	Chest Width	368	3	N	
55	Rump Length	371	3	N	
56	Pin Width	374	3	N	
57	Pin Set	377	3	N	
58	Foot Angle	380	3	N	
59	Heel Depth	383	3	N	
60	Rear Set of Leg	386	3	N	
61	Rear Leg Rear View	389	3	N	
62	Udder Depth	392	3	N	
63	Fore Attachment	395	3	N	
64	Rear Attachment Height	398	3	N	
65	Rear Attachment Width	401	3	N	
66	Centre Ligament	404	3	N	
67	Teat Placement Fore	407	3	N	
68	Teat Placement Rear	410	3	N	
69	Teat Length	413	3	N	
70	Condition Score	416	3	N	
	<b>ABV Analysis Details for Conformation Traits</b>				
71	Reliability	419	2	N	
72	Breed of ABV Analysis	421	1	A	single char breed code - see DIF Document Note 1
73	Date of ABV Analysis	422	8	N	yyyymmdd
74	Source of ABV Analysis	430	1	A	A = ABV, I = ABV(i)
75	Proof publishable	431	1	A	P = publishable, U = unpublishable
76	Foreign proof contribution	432	1	A	A = Aus only, I = International only, B = both
	<b>ABVs for Workability Traits</b>				
77	ABV Milking Speed	433	3	N	
78	ABV Temperament	436	3	N	
79	ABV Likability	439	3	N	
	<b>ABV Analysis Details for Workability Traits</b>				
80	Reliability Workability Traits	442	2	N	
81	Breed of ABV Analysis	444	1	A	single char breed code - see DIF Document Note 1
82	Date of ABV Analysis	445	8	N	yyyymmdd
83	Source of ABV Analysis	453	1	A	A = ABV, I = ABV(i)
84	Proof publishable	454	1	A	P = publishable, U = unpublishable
85	Foreign proof contribution	455	1	A	A = Aus only, I = International only, B = both
	<b>Survival Solution</b>				
86	Survival Solution	456	3	N	
87	Reliability Survival Solution	459	2	N	
	<b>ABV for Survival</b>				
88	ABV Survival	461	3	N	
	<b>ABV Analysis Details for Survival</b>				
89	Reliability Survival	464	2	N	
90	Breed of ABV Analysis	466	1	A	single char breed code - see DIF Document Note 1
91	Date of ABV Analysis	467	8	N	yyyymmdd
92	Source of ABV Analysis	475	1	A	A = ABV, I = ABV(i)
93	Proof publishable	476	1	A	P = publishable, U = unpublishable
94	Foreign proof contribution	477	1	A	A = Aus only, I = International only, B = both
	<b>ABV for Calving Ease</b>				
95	ABV Calving Ease	478	3	N	
	<b>ABV Analysis Details for Calving Ease</b>				
96	Reliability Calving Ease	481	2	N	

97	Breed of ABV Analysis	483	1	A	single char breed code - see DIF Document Note 1
98	Date of ABV Analysis	484	8	N	yyyymmdd
99	Source of ABV Analysis	492	1	A	A = ABV, I = ABV(i)
100	Proof publishable	493	1	A	P = publishable, U = unpublishable
101	Foreign proof contribution	494	1	A	A = Aus only, I = International only, B = both
	<b>ABV for Somatic Cell Count</b>				
102	ABV Somatic Cell Count	495	4	N	
	<b>ABV Analysis Details for Somatic Cell Count</b>				
103	Reliability Somatic Cell Count	499	2	N	
104	Breed of ABV Analysis	501	1	A	single char breed code - see DIF Document Note 1
105	Date of ABV Analysis	502	8	N	yyyymmdd
106	Source of ABV Analysis	510	1	A	A = ABV, I = ABV(i)
107	Proof publishable	511	1	A	P = publishable, U = unpublishable
108	Foreign proof contribution	512	1	A	A = Aus only, I = International only, B = both
	<b>ABV for Daughter Fertility</b>				
109	ABV Daughter Fertility	513	4	N	
	<b>ABV Analysis Details for Daughter Fertility</b>				
110	Reliability Daughter Fertility	517	2	N	
111	Breed of ABV Analysis	519	1	A	single char breed code - see DIF Document Note 1
112	Date of ABV Analysis	520	8	N	yyyymmdd
113	Source of ABV Analysis	528	1	A	A = ABV, I = ABV(i)
114	Proof publishable	529	1	A	P = publishable, U = unpublishable
115	Foreign proof contribution	530	1	A	A = Aus only, I = International only, B = both
	<b>ABV and Reliability for Liveweight</b>				
116	ABV Liveweight	531	4	N	
	<b>ABV Analysis Details for Liveweight</b>				
117	Reliability Liveweight	535	2	N	
118	Breed of ABV Analysis	537	1	A	single char breed code - see DIF Document Note 1
119	Date of ABV Analysis	538	8	N	yyyymmdd
120	Source of ABV Analysis	546	1	A	A = ABV, I = ABV(i)
121	Proof publishable	547	1	A	P = publishable, U = unpublishable
122	Foreign proof contribution	548	1	A	A = Aus only, I = International only, B = both
	<b>Has Genomics</b>				
123	HasGenomics	549	1	A	g=genomics included, blank otherwise
124	DPC Name	550	10	A	
125	Herd Owner	560	35	A	
126	Dam Name	595	40	A	
	<b>Health Weighted Index (HWI)</b>				
127	Health Weighted Index	635	4	N	
128	Reliability HWI	639	2	N	
	<b>Type Weighted Index (TWI)</b>				
129	Type Weighted Index	641	4	N	
130	Reliability TWI	645	2	N	
	<b>ABVs for New Traits</b>				
131	ABV Residual Survival	647	3	N	
132	Reliability Residual Survival	650	2	N	
133	ABV Feed Efficiency	652	5	N	
134	Reliability Feed Efficiency	657	2	N	
	<b>Index Ranking</b>				
135	Rank in Australia on HWI within-breed	659	6	N	
136	Rank in Australia on TWI within-breed	665	6	N	

RECORD LENGTH = 670 bytes

Sort order with all fields in ascending order: Fields 1, 2, 3, 4



## Data Format 401 V1

## Record for pre-printing of LTE forms

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 401
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	
5	Within-Herd Cow ID	21	6	N	
<b>Pedigree</b>					
6	Sire Primary ID	27	7	A	
7	Sire National ID	34	9	A	
8	Dam National ID	43	9	A	
9	MGS National ID	52	9	A	
<b>Animal Attributes</b>					
10	Breed	61	4	A	
11	Parity	65	2	N	Lactation number
12	Date of Birth	67	8	N	yyyymmdd
13	Date of Calving	75	8	N	yyyymmdd
14	AB Centre for PT daughters	83	3	A	see Note 6
15	Random number for Contemporaries	86	3	N	Range = 1 to number of contemporaries within breed within herd

RECORD LENGTH = 88 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 481 V3

## Genotype Nominations File

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 481
2	Record Version Number	4	1	A	Value = 3
<b>Sample details</b>					
3	Laboratory code	5	2	A	See note below
4	Lab DNA analysis requested	7	2	N	See note below
5	Electronic sample ID	9	16	A	e.g. sample bar code
6	Sample type	25	1	A	Value B = blood, E = ear plug, H = hair, S = semen (males only)
7	Date of sample	26	8	N	yyyymmdd
<b>Animal Details</b>					
8	NLIS Tag Radio Frequency	34	16	A	
9	National ID	50	9	A	See DIF note 3
10	Local animal name	59	15	A	Local bull ID or within-herd cow ID
11	Sex of animal	74	1	A	Value M = male, F = female
12	National Herd ID	75	7	A	This field is essential for local females
13	DPC Code	82	1	A	Data Processing Centre - see DIF note 4
<b>Supplier and recipient details</b>					
14	Genotyping service provider code	83	3	A	See DIF note 6
15	Designated recipient of results	86	70	A	Genotyping service provider code or recipient email address
16	Genotyping requested by	156	3	A	See DIF note 6

RECORD LENGTH = 158 bytes

Essential fields for all animals are 1, 2, 3, 4, 5, 9, 10, 11, 14, 15 and 16. Fields 12 and 13 are essential for females. Other fields should be provided when available.

### Laboratory code

DE German samples	DK Demark samples
DP DPI samples	FR France samples
GS GeneSeek	IT Italy samples
NL Netherlands samples	UK UK samples
UQ University of Qld.	US USA samples
ZT Zoetis	

### Lab DNA Analysis Requested

Code	Density
01	160 SNP panel (NB cannot be used for GEBV calculation)
02	9K SNP panel
03	50K SNP panel
04	80K SNP panel
06	20K SNP panel
07	11K SNP panel
08	16K SNP panel (Zoetis)
09	150K SNP panel (Zoetis)
10	25K SNP panel (GGPLD_V3)

## Data Format 501 V2

## Progeny test daughter progress report

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 501
2	Record Version Number	4	1	A	Value = 2
<b>Category</b>					
3	Bull Owner Code	5	3	A	See note 6
4	Bull Breed	8	4	A	See note 1
5	Agreement with Farmer	12	1	A	Y or N
6	Postcode	13	4	N	
<b>Herd Details</b>					
7	National Herd ID	17	7	A	See Note 8
8	DPC Code	24	1	A	Data Processing Centre - see Note 4
9	Date of Last Test	25	8	N	yyyymmdd
<b>PT Daughter Identity</b>					
10	National ID	33	9	A	See Note 3
11	Within-Herd Cow ID	42	6	N	
<b>Pedigree</b>					
12	Sire NASIS Primary ID	48	7	A	
13	Sire NASIS Bull ID	55	12	A	
14	Sire National ID	67	9	A	See Note 3
15	Dam National ID	76	9	A	See Note 3
16	MGS National ID	85	9	A	See Note 3
<b>Daughter Details</b>					
17	Breed	94	4	A	See Note 1
18	Date of Birth	98	8	N	yyyymmdd
19	Date of Calving	106	8	N	yyyymmdd
20	Date of Termination	114	8	N	yyyymmdd blank if lactation in progress
21	Parity	122	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise
22	Number of Test Day Records	124	3	N	
23	Number of Cell Count Records	127	3	N	
24	Workability Scored	130	1	A	Y or N
25	Conformation Scored	131	1	A	Y or N
26	Candidate for Evaluation	132	2	N	See note below
27	Included in ABV for Yield	134	1	A	Value Y = yes; N = no
28	Included in ABV for Workability	135	1	A	Value Y = yes; N = no
29	Included in ABV for Conformation	136	1	A	Value Y = yes; N = no
30	Included in ABV for Calving Ease	137	1	A	Value Y = yes; N = no
31	Included in ABV for Cell Count	138	1	A	Value Y = yes; N = no
32	Included in ABV for Daughter Fertility	139	1	A	Value Y = yes; N = no
33	Included in ABV for Survival	140	1	A	Value Y = yes; N = no

RECORD LENGTH = 140 bytes

### Candidate for Evaluation

Code	Category	Description
1	Too young	Daughter is a potential candidate but is too young
2	Yes	Daughter is suitable for evaluation of workability and type
3	Too old	Too old at first calving to be included as a "2 year old"
4	DNA test?	Sire and daughter have incompatible breed or birth date
5	Bad dates?	Birth date and calving date are too close together
6	>305 days	Too late for collection of work and type scores - daughter is too late in lactation
7	>1st lact	Too late for collection of work and type scores - daughter has completed first lactation
8	Left herd	Too late for collection of work and type scores - daughter is no longer in this herd
9	Miss DOB	Missing date of birth

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 5, 6, 7

## Data Format 502 V1

## Calving ease for progeny test bulls

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 502
2	Record Version Number	4	1	A	Value = 1
<b>Category</b>					
3	Bull Owner Code	5	3	A	See note 6
4	Bull Breed	8	4	A	See note 1
5	Agreement with Farmer	12	1	A	Y or N
6	Postcode	13	4	N	
<b>Herd Details</b>					
7	National Herd ID	17	7	A	See Note 8
8	DPC Code	24	1	A	Data Processing Centre - see Note 4
9	Date of Last Test	25	8	N	yyyymmdd
<b>Sire Identity</b>					
10	National ID	33	9	A	See Note 3
11	NASIS Primary ID	42	7	A	
12	NASIS Bull ID	49	12	A	
<b>Dam Details</b>					
13	National ID	61	9	A	
14	Within-Herd Cow ID	70	6	N	
15	Breed	76	4	A	See Note 1
16	Date of Birth	80	8	N	yyyymmdd
17	Parity	88	2	N	Lactation number
<b>Calf Details</b>					
18	Date of Birth	90	8	N	yyyymmdd
19	Sex	98	2	A	see note below

RECORD LENGTH = 99 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 5, 6, 7.

### Sex of Calf

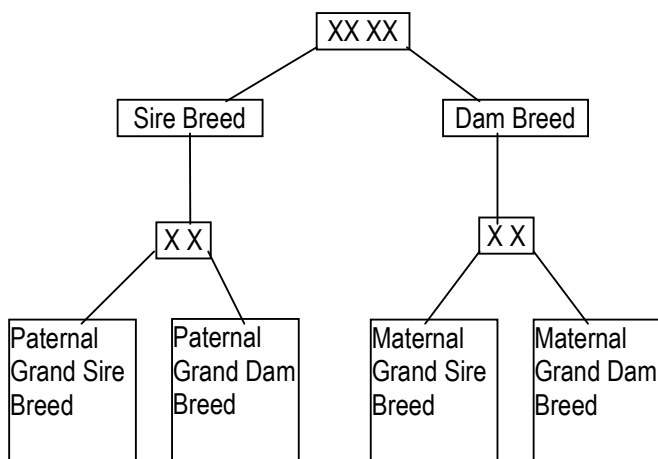
F	Female
M	Male
FF	Female Twins
MM	Male Twins
FM	One Female and One Male Twin
U	Undefined

## APPENDIX A

## NOTES OF EXPLANATION

### **Note 1: Breed Codes**

The breed code required is a four character string, capable of defining the parental breeds, ie.



The ADHIS single alpha character breed codes are:

A	AYRSHIRE
B	BROWN SWISS
C	AUSTRALIAN COMMERCIAL DAIRY COW
D	DAIRY SHORTHORN
E	BEEF BREEDS
F	HOLSTEIN
G	GUERNSEY
H	SAHIWAL
I	ILLAWARRA
J	JERSEY
L	NORMANDE
M	MEUSE-RHINE-ISSEL
N	MONTBELIARDE
R	RED POLL
S	SIMMENTAL
U	AUSTRALIAN RED BREED
W	AUSTRALIAN FRIESIAN SAHIWAL
Z	AUSTRALIAN MILKING ZEBU
X	UNKNOWN

Example of the four alpha character breed code required by ADHIS.

FFFF	'PURE' Holstein, resulting from the mating of a Holstein Bull to a Holstein cow.
FFJJ	Holstein-Jersey cross, resulting from the mating of a Holstein bull to a Jersey cow.
JJFF	Jersey-Holstein cross, resulting from the mating of a Jersey bull to a Holstein cow.
FFFJ	Three Quarter Holstein, resulting from the mating of a Holstein bull to a Holstein-Jersey cross cow.
FFXX	Holstein cross, resulting from the mating of a Holstein bull to a cow of unknown breed.
FFFX	Three Quarter Holstein, resulting from the mating of a Holstein bull to a Holstein cross cow whose sire was Holstein and whose dam was of unknown breed.

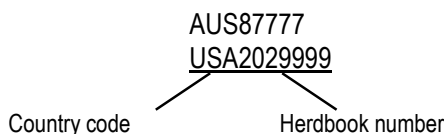
**Note 2: Herdbook ID**

The herdbook ID has two parts. The first part is the country code which indicates to which organisation or country the herdbook number refers. The country codes used are the 3-character Interbull codes outlined in the following table.

Interbull country codes					
Code	Country	Code	Country	Code	Country
ARG	Argentina	DEU	Germany	NZL	New Zealand
AUS	Australia	GBR	Great Britain	NOR	Norway
AUT	Austria	GRC	Greece	POL	Poland
BEL	Belgium	HUN	Hungary	PRT	Portugal
CAN	Canada	IRL	Ireland	SLO	Slovenia
CRO	Croatia	ISR	Israel	ZAF	South Africa
CSK	Czech Republic	ITA	Italy	ESP	Spain
DNK	Denmark	JPN	Japan	SWE	Sweden
EST	Estonia	LUX	Luxembourg	CHE	Switzerland
FIN	Finland	MEX	Mexico	USA	United States of America
FRA	France	NLD	Netherlands	DFS	Denmark, Finland, Sweden

The next part of the Herdbook ID is the herdbook number itself which is stripped of any leading zeros, left justified and space filled. Examples are :

An Australian bull  
A bull from the USA



**Note 3: National Animal ID**

The National IDs for bulls and cows are permanent identifiers and are allocated by ADHIS, Data Processing Centres and participating Breed Societies when an animal is first entered onto a computer system. The only time they will be changed is when fixing errors or clashes in National IDs. The National Animal ID is unique across sexes and is a nine character alpha-numeric field. The first character is always the Data Processing Code (See Note 4) for the organization that allocates the code. The formats for allocating National IDs for bulls and cows are:

		National ID first allocated by:	Allocation rules
Cows	Australian	DPC	Rule 3.1
		HA	Rule 3.2
Cows	Foreign	ADHIS	Rule 3.3
		HA	Not permitted, contact ADHIS
		DPC	Not permitted, contact ADHIS
Bulls	All bulls (Australian and Foreign)	ADHIS	Rule 3.4
		HA	Rule 3.2
		DPC	Not permitted, contact ADHIS
Bulls	Australian Natural Breed Society bulls	HA, born 1997 or later	Rule 3.2
		HA, born before 1997	Rule 3.5
		Other Breed Society	Rule 3.5
		DPC	Allocate according to the Breed Society rules above (3.2 and 3.5)
Bulls	Foreign Natural Breed Society bulls	All	Not permitted, contact ADHIS
Bulls	All Natural bulls not Breed Society	DPC	Rule 3.1

## Rules for allocation of National Animal IDs

### Rule 3.1

National ID is CYY999999

Where C = Data Processing Centre code (See Note 4 below)  
YY = Year first recorded by the Data Centre (recommended)  
999999 = Sequence number within Data Centre within year (recommended).  
E.g. 205001111, B06023456

### Rule 3.2

National ID is H99999999

Where H = Data Processing Centre code for Holstein Association (HA)  
99999999 = HA Herdbook Number right justified with leading zeros  
E.g. H01023456, H01111111

### Rule 3.3

National ID is G02999999

Where G02 = Prefix for Foreign cows allocated by ADHIS  
999999 = Sequence number allocated by ADHIS  
E.g. G02001234, G02008912

### Rule 3.4

National ID is A09999999

Where A0 = Prefix for AI bulls allocated by ADHIS  
9999999 = Sequence number allocated by ADHIS  
E.g. A00009209, A00017558

### Rule 3.5

National ID is ABB999999

Where A = Prefix allocated by ADHIS ("A")  
BB = Numeric breed code allocated by ADHIS  
999999 = Herdbook Number allocated by the relevant Breed Society with leading zeros

The valid numeric breed codes (BB) are Holstein (10), Jersey (20), Ayrshire (30), Guernsey (40), Illawarra (55), AFS (56), Dairy Shorthorn (57), Brown Swiss (58), AMZ (59), Red Poll (60), Simmental (61), MRI (62), Sahiwal (63) and Australian Red Breed (64). Please contact ADHIS for numeric breed codes for other breeds.

E.g. A10079123, A64029345



**Note 4: Data Processing Codes (For historical reference, codes of inactive organisations are included in this list)**

2	HICO (Maffra)
3	Yarram
4	NHD
5	HICO (South Gippsland)
6	Genetics Australia (Timboon)
7	HICO (Colac)
8	Genetics Australia (Warnambool) (Western Herd)
9	Genetics Australia (Warragul) (West Gippsland)
A	ADHIS
B	Bovine
C	ABS (Kyabram) (CHIS)
D	Genetics Australia (Leongatha) (VHMS)
E	AHRS
G	ADHIS
H	HA
N	Dairy Express
Q	Dairy Express
R	Norco
S	ABS (South Australia) (HISCOL)
T	TDIA
U	CHIS
W	Farm West (HISWA)
X	Mistro
Y	Mistro

### **Note 5: Termination Codes**

Termination codes apply to lactations. Subsets of the codes (the sold (S) and died (D) codes) also apply to cows. This is to facilitate recording of the fate of cows that have left the herd between lactations. Conversion of local codes to the Standard Codes may be necessary.

#### REQUIREMENTS FOR TERMINATION OF LACTATION CODES

<u>Dry</u>	DP	or	D1	Dried off, low production
	DD	or	D2	Dry due to disease or injury.
	DO	or	D3	Other
	DL	or	D4	Dried off, end of lactation
	DA	or	D5	Cow Aborted - Dried Off
<u>Sold</u>	S1	Low production or transferred to beef production.		
	S2	Age		
	S3	Mastitis		
	S4	Infertility		
	S5	Type Defect		
	S6	Temperament		
	S7	Ease of Milking		
	S8	Sold for dairying		
	S9	Other		
<u>Died</u>	X1	Milk fever		
	X2	Bloat		
	X3	Other		
	X4	EBL		
	X5	Johnes disease		
	X6	Mastitis		
	X7	Scours		
	X8	Calving difficulties		
	X9	Paralysis		
	XA	Accident		
<u>Other</u>	W1	Herd withdrawn		

**Note 6: Codes for Organisations that own bulls or request authority for access to records held by ADHIS**

**(For historical reference, the codes for inactive companies are included in this list)**

GAC	Genetics Australia
AGR	Agri-Gene
RAB	Riverina Artificial Breeders
HIM	Herd Improvers
SEM	Semex Australia
ABS	ABS Australia
WWS	World-Wide Sires
TGS	Team Genetics
HTG	High Tech Genetics
LBS	Livestock Breeding Services
NAB	Northern Artificial Breeders
TLG	Total Livestock Genetics
TAC	Tatiara AB Centre
HBS	Hunters Bamawn Bull Farm&Semen Collections
BSI	BSI Breeding Services
CWA	Central West AB
NWG	NorthWest Genetics
HVC	Holbrook Veterinary Clinic
DDA	Darling Downs AB Centre
BOV	Bovine Semen (Aust)
COO	Coolau Downs Artificial Breeders
NAR	Australian Livestock Genetics
NEA	New England Artificial Breeders
WAB	Westralian AB Services
WAS	Woodlands Agricultural Services
ALT	Alta Genetics
HFA	Holstein Friesian Association of Australia
JER	Australian Jersey Breeders Society
CRV	CRV Australia
BOS	BOS Trading
NZG	Livestock Improvement Corporation
LIC	Livestock Improvement Corporation
LIV	Livestock Improvement Corporation
RAG	Raging Bulls
GDF	Genes Diffusion
RED	Auzred Xb
VIK	Viking Genetics
ARG	Ausred Genetics
GLS	Global Sires
CAM	Cameron Genetics
ADH	ADHIS
RES	Research Organisation/Purposes
ALL	A code to cover all organisations

**Note 7: Health event codes**

Health event codes are maintained by ADHIS and can be downloaded from the ADHIS web site (<http://www.adhis.com.au>). The codes are used in format 116 unless specified otherwise.

DPCs are encouraged to download the latest file of codes regularly from the web site. The download file is an MS Excel spreadsheet. The first six fields are:

Field No.	Field Name	Length	Numeric /Alpha	Comments
1	ADHIS code	5	N	Used in formats 108 and 116
2	Event mnemonic	10	A	
3	Full name	30	A	
4	Withhold (single treatment)	3	N	Withholding period in days (12 hours = 0.5)
5	Withhold (multiple treatments)	3	N	Withholding period in days (12 hours = 0.5)
6	Event/treatment group code	2	N	See below
<b>Event group codes</b>				
0	Mating events (format 108)			
1	Reproductive problems			
2	Mastitis			
3	Leg problems			
4	Diseases			
<b>Treatment group codes</b>				
11	Hormones			
12	Antibiotics			
13	Drenches			
14	Vaccines			
15	Mastitis			
16	Uterine/Urinary			
17	Alimentary			
18	Anaesthetics			
19	Nervous system			
20	Skin preps			
21	Ear nose eyes			
22	Musculo skeletal			
23	Metabolic and nutritional			
99	Other unspecified			

**Note 8: National Herd ID**

The National Herd ID is the standard ID identifier for herds (groups of cows) when transferring data between participants in the herd improvement industry. The National Herd ID is a unique permanent ID for that group of cows. It is issued by DPCs. It included a check character to ensure the integrity of the data.

The National Herd ID consists of seven characters from the range A-Z and 0-9.

- The first character is the DPC Code for the DPC which issued the ID.
- The following five characters are allocated by the DPC and can follow any strategy as long as they are unique within that DPC.
- The last character is a check character and is calculated by the algorithm set out below.

Check character algorithm

1. Add the ascii value of the characters in the first, third and fifth positions and call this total x.
2. Add the ascii value of the characters in the second, fourth and sixth positions and call this total y.
3. Calculate  $z = x + 3y$ .
4. Let  $n = (z \bmod 23) + 1$
5. The check character is the nth letter of the alphabet. It will be represented in upper case.

Example: Suppose the first 6 characters of the National Herd ID are C12345, then:

$$x = 67+50+52 = 169$$

$$y = 49+51+53 = 153$$

$$z = 169 + 3*153 = 628$$

$$n = (628 \bmod 23) + 1 = 8$$

The check character is H

The full National Herd ID is C12345H.

Note: All characters should be upper case.

**Note 9: National Livestock Identification Scheme (NLIS) Formats**

These formats are for the transfer of information about animal movements from DPCs to NLIS and ADHIS.

**Data Format NLIS1**

**NLIS Transfer Record**

Field	Start column	Length	Numeric/ Alpha	Comments
1 NLIS ID	1	16	A	Can use RF ID in place of NLIS ID.
2 From PIC	17	8	A	
3 To PIC	25	8	A	
4 EU Vendor ID	33	7	A	
5 Transfer Date	40	10	A	Format: dd/mm/yyyy
6 From National Herd ID	50	7	A	See Note 8
7 To National Herd ID	57	7	A	See Note 8

RECORD LENGTH = 63 bytes

Fields 1 to 5 are essential for NLIS. All fields are essential for ADHIS.

**Data Format NLIS2**

**NLIS Termination Record**

Field	Start column	Length	Numeric/ Alpha	Comments
1 NLIS ID	1	16	A	Can use rf ID in place of NLIS ID.
2 PIC	17	8	A	
3 Date	25	10	A	Format: dd/mm/yyyy
4 Reason Code	35	1	A	L – Lost/Defective Tag, D – Dead Animal.
5 Replacement NLIS ID	36	16	A	Mandatory for lost tags – can use rf ID in place of NLIS ID.

RECORD LENGTH = 51 bytes

Fields 1, 2, 3, 4 are essential. If Reason Code = "L", field 5 is essential

## **Note 10: Genetic codes**

The following genetic codes indicate whether an animal has tested positive or negative for a range of genetic recessives or a value for a homozygous or heterozygous genotype. Two letter codes have been updated to three-letter codes, with (where applicable) C = Carrier, F = tested free or non carrier.

<b>Trait</b>	<b>Positive</b>	<b>Negative</b>
BLAD	BLC	BLF
Citrullinaemia	CNC	CNF
DUMPS	DPC	DPF
Mulesfoot	MFC	MFF
CVM	CVC	CVF
Factor XI	XIC	XIF
Brachyspina	BYC	BYF
<b>Coat Colour</b>		
Red carrier	RDC	RDF
Black Red	BRC	
Variant Red	VRC	
<b>A1A2</b>	A1/A2	A11=A1A1, A12=A1A2, A22=A2A2
Polled	POS = tested true polled (homozygous PP) POC = tested carrier of polled (heterozygous Pp) POF = tested free of polled	

## APPENDIX B

### Formats discontinued from 14<sup>th</sup> June 2003

The following formats have been replaced by version 2 formats as from 14<sup>th</sup> June 2003.

It is highly recommended that these discontinued formats not be used for data transfer, but ADHIS undertakes to accept them until 14<sup>th</sup> June 2004.

Format	Data Record for discontinued formats	Version	Page	Date of Update
101	Herd Record	1	B-2	9 <sup>th</sup> May 2001
105	Bull Pedigree Record (incorporates NASIS file)	1	B-3	9 <sup>th</sup> May 2001
110	Disclosure Record	1	B-4	9 <sup>th</sup> May 2001
114	Conformation Trait Record	1	B-5,6	26 <sup>th</sup> April 2001
201	Bull ABVs for All Traits	1	B-7,8	9 <sup>th</sup> May 2001

#### Summary of differences between Version 1 and Version 2 formats

##### **DIF101 V2**

Field 2 Record Version Number now = 2

Field 18 Local herd ID is a new field appended at the end of the record

##### **DIF105 V2**

Field 2 Record Version Number now = 2

Field 20 NASIS Active Sire Code is a new field appended at the end of the record

##### **DIF110 V2**

Field 2 Record Version Number now = 2

Field 7 DPC Code is a new field appended at the end of the record

##### **DIF114 V2**

Field 2 Record Version Number now = 2

Field 25 Linear Traits now contains 24 traits (24x1) instead of 22

Front End Height is inserted after Angularity

Teat Placement Rear is inserted after Teat Placement Fore

##### **DIF201 V2**

Field 2 Record Version Number now = 2

Fields 81-82 ABV for Liveweight and Reliability of Liveweight ABV are new fields appended at the end of the record



**Data Format 101 V1****Herd Record**discontinued 14<sup>th</sup> June 2003

Field No.	Field Name	Start column	Length	Numeric/ Alpha	Comments
1	Record Type	1	3	N	Value = 101
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Farmer Name and Address</b>					
4	Full Name	12	35	A	Surname or Company name to appear first in this field to allow sorting on Farmer Name to be meaningful.
5	Line 1	47	35	A	
6	Line 2	82	35	A	
7	Line 3	117	35	A	
8	Postcode	152	4	N	
9	Farmer Phone Number	156	15	A	
<b>Location Details</b>					
10	State Code	171	1	A	First digit of state postcode
11	Location Code	172	3	A	To enable herds to be grouped by Region
12	NLIS Property Identification Code	175	8	A	
13	GPS Latitude	183	8	N	Farm location using Global Positioning System
14	GPS Longitude	191	8	N	
<b>Herd Codes</b>					
15	Testing Frequency	199	1	N	Value 1 = 24 hour test 2 = Alternate am/pm 3 = 3 times a day milking 4 = Other
16	Sampler	200	1	A	Value F = Farmer sampler R = Recorder sampler U = Unknown sampler C = Farmer Collection
17	DPC Code	201	1	A	Data Processing Centre - see Note 4

RECORD LENGTH = 201 bytes

**Global Positioning System coordinates (GPS Latitude and GPS Longitude)**

The GPS coordinates identify the location of the property. The units are degrees x 100000 (that is, there is an implied decimal place after the third digit). Negative signs are omitted.

Essential fields for ADHIS are 1, 2, 3, 4, 8, 10, 11, 15, 16, 17. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3.

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 1
<b>Bull Identity</b>					
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
<b>Pedigree Details</b>					
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
<b>NASIS Bull Details</b>					
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Defect Codes	173	4x2	A	Up to 4 two-character codes - see note below

RECORD LENGTH = 180 bytes

#### International ID

The International ID as designated by Interbull has the following format

Breed	3 characters (eg, HOL, JER, AYS, GUE)
Country	3 characters (eg, AUS, USA, CAN - see Note 2 for a full list of codes)
Sex	1 character (M or F)
Within-Country ID	12 characters (right justified, zero filled)

#### Defect Codes

The following defect codes indicate whether an animal has tested positive or negative for the defect

Defect	Positive	Negative
BLAD	BL	TL
Citrullinaemia	CN	TC
DUMPS	DP	TD
Mulesfoot	MF	TM

Essential fields for ADHIS are 1, 2, 3, 8. Other fields are strongly recommended.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3.

**Data Format 110 V1****Disclosure / Non-Disclosure Record** discontinued 14<sup>th</sup> June 2003

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 110
2	Record Version Number	4	1	A	Value = 1
	<b>Herd ID</b>				
3	National Herd ID	5	7	A	See Note 8
4	Organisation with/without Authority	12	3	A	See Note 6
5	Date initiated	15	8	N	yyyymmdd
6	Disclosure	23	1	A	(Y = disclose data to Organisation, N = don't disclose data to Organisation)

RECORD LENGTH = 23 bytes

The record exists to authorise ADHIS to disclose data for a herd to organisations other than the DPC which provided the data to ADHIS, or to prohibit ADHIS from disclosing data to other organisations.

All fields are essential for ADHIS.

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 114 V1

## Conformation Trait Record

discontinued 14<sup>th</sup> June 2003

Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID Herdbook ID	21	6	N	
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
<b>Pedigree details</b>					
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by ADHIS if Dam ID is unavailable, and MGS is available)
<b>Lactation details</b>					
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
<b>Transfer Details</b>					
See explanation below					
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
<b>Classification Details</b>					
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	2x2	N	Overall type and mammary system - range 1-18
25	Linear Traits	159	22x1	N	See next page for trait description - range 1-9
26	Condition score	181	2	N	
27	Defects	183	5x2	N	
28	Extra Composite Traits	193	7x2	N	See next page for trait description - range 1-18

RECORD LENGTH = 206 bytes

Essential fields

Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.

Field 25 Linear Traits - Note that trait 8 (Loin Strength) is not recorded for Holsteins. Also Rear leg rear view is a new trait (2001).

1	Stature	General characters
2	Udder texture	
3	Bone quality	
4	Angularity	
5	Muzzle width	Front end
6	Body length	
7	Body depth	
8	Loin strength	
9	Chest width	
10	Length	Rump
11	Pin Width	
12	Pin set	
13	Foot angle	Feet & legs
14	Rear set	
15	Rear leg rear view	Note: new trait 2001
16	Udder depth	Mammary system
17	Fore attachment	
18	Rear attachment height	
19	Rear attachment width	
20	Centre ligament	
21	Teat placement fore	
22	Teat length	

Field 28 Extra Composite Traits - Not used by ADHIS but measured on some cows.

1	Unspecified, contact the relevant Breed Society
2	Unspecified, contact the relevant Breed Society
3	Unspecified, contact the relevant Breed Society
4	Unspecified, contact the relevant Breed Society
5	Unspecified, contact the relevant Breed Society
6	Unspecified, contact the relevant Breed Society
7	Unspecified, contact the relevant Breed Society

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

## Data Format 201 V1

## Bull ABVs for All Traits

discontinued 14<sup>th</sup> June 2003

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 1
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID	26	7	A	If NASIS
Herdbook ID					
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
<b>Bull Details</b>					
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
<b>ABV Analysis Details</b>					
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
<b>Australian Profit Ranking (APR)</b>					
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
<b>ABVs for Production Traits</b>					
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1 <sup>st</sup> lactation
<b>ABVs for Conformation Traits</b>					
31	Overall Type	198	4	N	One decimal place(eg, -0.1)
32	Mammary System	202	4	N	One decimal place
33	Stature	206	4	N	One decimal place
34	Udder Texture	210	4	N	One decimal place
35	Bone Quality	214	4	N	One decimal place
36	Angularity	218	4	N	One decimal place
37	Muzzle Width	222	4	N	One decimal place
38	Body Length	226	4	N	One decimal place
39	Body Depth (new trait)	230	4	N	One decimal place
40	Chest Width	234	4	N	One decimal place
41	Rump Length	238	4	N	One decimal place
42	Pin Width	242	4	N	One decimal place

43	Pin Set	246	4	N	One decimal place
44	Foot Angle (new trait)	250	4	N	One decimal place
45	Rear Set of Leg	254	4	N	One decimal place
46	Rear Leg Rear View (provisional)	258	4	N	One decimal place
47	Udder Depth (new trait)	262	4	N	One decimal place
48	Fore Attachment	266	4	N	One decimal place
49	Rear Attachment Height	270	4	N	One decimal place
50	Rear Attachment Width	274	4	N	One decimal place
51	Centre Ligament	278	4	N	One decimal place
52	Teat Placement	282	4	N	One decimal place
53	Teat Length (new trait)	286	4	N	One decimal place
54	Loin Strength (not Holsteins)	290	4	N	One decimal place
<b>Amount of data for old Conformation Traits</b>					
55	Reliability	294	2	N	
56	Number of Daughters	296	6	N	
57	Number of Herds	302	5	N	
<b>Amount of data for new Conformation Traits (recording commenced in 1994)</b>					
58	Reliability	307	2	N	
59	Number of Daughters	309	6	N	
60	Number of Herds	315	5	N	
<b>ABVs for Workability Traits</b>					
61	ABV Milking Speed	320	2	N	
62	ABV Temperament	322	2	N	
63	ABV Likability	324	2	N	
<b>Amount of data for Workability Traits</b>					
64	Reliability Workability Traits	326	2	N	
65	Number of Daughters	328	6	N	
66	Number of Herds	334	5	N	
<b>ABV and Reliability for Survival</b>					
67	ABV Survival	339	3	N	
68	Reliability Survival	342	2	N	
<b>ABV for Calving Ease</b>					
69	ABV Calving Ease	344	3	N	
<b>Amount of data for Calving Ease</b>					
70	Reliability Calving Ease	347	2	N	
71	Number of Calvings	349	6	N	
72	Number of Herds	355	5	N	
<b>ABV for Somatic Cell Count</b>					
73	ABV Somatic Cell Count	360	4	N	Provisional
<b>Amount of data for Somatic Cell Count</b>					
74	Reliability Somatic Cell Count	364	2	N	Provisional
75	Number of Daughters	366	6	N	Provisional
76	Number of Herds	372	5	N	Provisional
<b>ABV for Cow Fertility</b>					
77	ABV Cow Fertility	377	4	N	Provisional
<b>Amount of data for Cow Fertility</b>					
78	Reliability Fertility	381	2	N	Provisional
79	Number of Daughters	383	6	N	Provisional
80	Number of Herds	389	5	N	Provisional

RECORD LENGTH = 393 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3

## APPENDIX C

## Formats discontinued from 4<sup>th</sup> March 2008

The following formats have been replaced by later version formats as from 4<sup>th</sup> March 2008.

Format	Data Record for discontinued formats	Version	Page	Date of Update
114	Conformation Trait Record	2	C-2-3	8 <sup>th</sup> Oct 2002
201	Bull ABVs for All Traits	2	C-4,5	9 <sup>th</sup> May 2001
501	Progeny test daughter progress report	1	C-6	26 <sup>th</sup> April 2001

Note that DIF Format 112 Calving Ease has had an increase in valid codes but no change to the format. Also, there is a new DIF Format 251 for bull ABVs for All Traits (extended)

### Summary of differences between Versions of formats

#### **DIF114 V3**

Field 2 Record Version Number now = 3  
Field 24 Expanded from 2 composite traits to 7 composite traits  
Field 25 Now 25 traits instead of 24 traits  
Field 25 Extra linear trait Heel Depth inserted as trait 14 after Foot Angle  
Field 25 Front end height moved from trait 5 to trait 25. Other traits kept in same order.  
Field 27 Each defect (total 5) now has a severity code (1 = moderate, 2 = high)  
Field 28 Extra composite traits are more clearly specified  
New Field 29 – Condition score on 1 to 9 scale  
New Field 30 – Condition score on scale used by Holstein Association  
New Field 31 – Number of times scored excellent (not used by ADHIS)

#### **DIF201 V3**

Field 2 Record Version Number now = 3  
ABVs for Conformation traits  
New Field 33 - Inserted ABV for Overall Feet & Legs between Mammary System and Stature  
New Field 41 – Moved ABV for Loin Strength from the end to between Body Depth and Chest Width  
New Field 47 – Inserted ABV for Heel Depth between Foot Angle and Rear Set of Leg  
New Field 56 – Inserted ABV for Teat Placement Rear between Teat Placement Fore and Teat Length  
New Field 58 – Condition Score

ABVs for traits other than Yield, ASI and APR are now expressed as Relative Breeding Values (RBVs) with base value of 100 and a standard deviation equal to the coefficient of variation for the trait. The field length is now 3 digits for all these traits.

'Amount of data for Conformation Traits (average of key traits)' now replaces both 'Amount of data for old Conformation Traits' and 'Amount of data for new Conformation Traits'.

#### **DIF501 V2**

Field 2 Record Version Number now = 2  
New Fields 27-33 Codes to indicate if the animal is included in the ABV of the sire for yield, workability, conformation, calving ease, cell count, daughter fertility and survival traits.



Field No.	Field Name	Start	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 114
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID Herdbook ID	21	6	N	
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	NLIS Animal ID	42	16	A	
9	NLIS Tag Radio Frequency	58	16	A	
10	Breed	74	4	A	See Note 1
11	Birth date	78	8	N	yyyymmdd
<b>Pedigree details</b>					
12	Sire National ID	86	9	A	See Note 3
13	Dam National ID	95	9	A	See Note 3
14	MGS National ID	104	9	A	See Note 3 (Used by ADHIS if Dam ID is unavailable, and MGS is available)
<b>Lactation details</b>					
15	Date of Calving	113	8	N	yyyymmdd
16	Parity	121	2	N	Lactation number
17	Date of Classification	123	8	N	yyyymmdd
<b>Transfer Details</b>					
See explanation below					
18	Transfer-in date	131	8	N	yyyymmdd
19	National ID of Herd Transferred from	139	7	A	See Note 8
<b>Classification Details</b>					
20	Classifier	146	3	A	
21	Round	149	2	N	
22	Total Score for Animal	151	2	N	
23	Total Score for Dam	153	2	N	
24	Composite Traits	155	2x2	N	Overall type and mammary system - range 1-18
25	Linear Traits	159	24x1	N	See next page for trait description - range 1-9
26	Condition score	183	2	N	
27	Defects	185	5x2	N	
28	Extra Composite Traits	195	7x2	N	See next page for trait description - range 1-18

RECORD LENGTH = 208 bytes

Essential fields

Essential fields are 1, 2,3,4,10,11,15,16,17,24,25. All other fields are strongly recommended.

Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4.

Field 25 Linear Traits - Note that trait 16 (Rear leg rear view) is a new trait in 2001, and trait 5 (Front end height) and 23 (Teat placement rear) are new traits in 2002.

1	Stature	General characters	
2	Udder texture		
3	Bone quality		
4	Angularity		
5	Front End Height	Front end	(Note: new trait 2002)
6	Muzzle width		
7	Body length		
8	Body depth		
9	Loin strength		
10	Chest width		
11	Length	Rump	
12	Pin Width		
13	Pin set		
14	Foot angle	Feet & legs	
15	Rear set		
16	Rear leg rear view		(Note: new trait 2001)
17	Udder depth	Mammary system	
18	Fore attachment		
19	Rear attachment height		
20	Rear attachment width		
21	Centre ligament		
22	Teat placement fore		
23	Teat placement rear		(Note: new trait 2002)
24	Teat length		

Field 28 Extra Composite Traits - Not used by ADHIS but measured on some cows.

- 1 Unspecified, contact the relevant Breed Society
- 2 Unspecified, contact the relevant Breed Society
- 3 Unspecified, contact the relevant Breed Society
- 4 Unspecified, contact the relevant Breed Society
- 5 Unspecified, contact the relevant Breed Society
- 6 Unspecified, contact the relevant Breed Society
- 7 Unspecified, contact the relevant Breed Society

## Data Format 201 V2

## Bull ABVs for All Traits

discontinued 4th March 2008

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 2
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
<b>Bull Details</b>					
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
<b>ABV Analysis Details</b>					
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
<b>Australian Profit Ranking (APR)</b>					
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
<b>ABVs for Production Traits</b>					
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1 <sup>st</sup> lactation
<b>ABVs for Conformation Traits</b>					
31	Overall Type	198	4	N	One decimal place(eg, -0.1)
32	Mammary System	202	4	N	One decimal place
33	Stature	206	4	N	One decimal place
34	Udder Texture	210	4	N	One decimal place
35	Bone Quality	214	4	N	One decimal place
36	Angularity	218	4	N	One decimal place
37	Muzzle Width	222	4	N	One decimal place
38	Body Length	226	4	N	One decimal place
39	Body Depth (new trait)	230	4	N	One decimal place
40	Chest Width	234	4	N	One decimal place
41	Rump Length	238	4	N	One decimal place
42	Pin Width	242	4	N	One decimal place
43	Pin Set	246	4	N	One decimal place

44	Foot Angle (new trait)	250	4	N	One decimal place
45	Rear Set of Leg	254	4	N	One decimal place
46	Rear Leg Rear View (provisional)	258	4	N	One decimal place
47	Udder Depth (new trait)	262	4	N	One decimal place
48	Fore Attachment	266	4	N	One decimal place
49	Rear Attachment Height	270	4	N	One decimal place
50	Rear Attachment Width	274	4	N	One decimal place
51	Centre Ligament	278	4	N	One decimal place
52	Teat Placement	282	4	N	One decimal place
53	Teat Length (new trait)	286	4	N	One decimal place
54	Loin Strength (not Holsteins)	290	4	N	One decimal place
<b>Amount of data for old Conformation Traits</b>					
55	Reliability	294	2	N	
56	Number of Daughters	296	6	N	
57	Number of Herds	302	5	N	
<b>Amount of data for new Conformation Traits (recording commenced in 1994)</b>					
58	Reliability	307	2	N	
59	Number of Daughters	309	6	N	
60	Number of Herds	315	5	N	
<b>ABVs for Workability Traits</b>					
61	ABV Milking Speed	320	2	N	
62	ABV Temperament	322	2	N	
63	ABV Likability	324	2	N	
<b>Amount of data for Workability Traits</b>					
64	Reliability Workability Traits	326	2	N	
65	Number of Daughters	328	6	N	
66	Number of Herds	334	5	N	
<b>ABV and Reliability for Survival</b>					
67	ABV Survival	339	3	N	
68	Reliability Survival	342	2	N	
<b>ABV for Calving Ease</b>					
69	ABV Calving Ease	344	3	N	
<b>Amount of data for Calving Ease</b>					
70	Reliability Calving Ease	347	2	N	
71	Number of Calvings	349	6	N	
72	Number of Herds	355	5	N	
<b>ABV for Somatic Cell Count</b>					
73	ABV Somatic Cell Count	360	4	N	
<b>Amount of data for Somatic Cell Count</b>					
74	Reliability Somatic Cell Count	364	2	N	
75	Number of Daughters	366	6	N	
76	Number of Herds	372	5	N	
<b>ABV for Cow Fertility</b>					
77	ABV Cow Fertility	377	4	N	
<b>Amount of data for Cow Fertility</b>					
78	Reliability Fertility	381	2	N	
79	Number of Daughters	383	6	N	
80	Number of Herds	389	5	N	
<b>ABV for Liveweight</b>					
81	ABV Liveweight (kg)	394	4	N	
<b>Amount of data for Liveweight</b>					
82	Reliability Liveweight	398	2	N	

---

RECORD LENGTH = 399 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 501
2	Record Version Number	4	1	A	Value = 1
<b>Category</b>					
3	Bull Owner Code	5	3	A	See note 6
4	Bull Breed	8	4	A	See note 1
5	Agreement with Farmer	12	1	A	Y or N
6	Postcode	13	4	N	
<b>Herd Details</b>					
7	National Herd ID	17	7	A	See Note 8
8	DPC Code	24	1	A	Data Processing Centre - see Note 4
9	Date of Last Test	25	8	N	yyyymmdd
<b>PT Daughter Identity</b>					
10	National ID	33	9	A	See Note 3
11	Within-Herd Cow ID	42	6	N	
<b>Pedigree</b>					
12	Sire NASIS Primary ID	48	7	A	
13	Sire NASIS Bull ID	55	12	A	
14	Sire National ID	67	9	A	See Note 3
15	Dam National ID	76	9	A	See Note 3
16	MGS National ID	85	9	A	See Note 3
<b>Daughter Details</b>					
17	Breed	94	4	A	See Note 1
18	Date of Birth	98	8	N	yyyymmdd
19	Date of Calving	106	8	N	yyyymmdd
20	Date of Termination	114	8	N	yyyymmdd blank if lactation in progress
21	Parity	122	2	N	Parity is the lactation number, if known. It is the number of lactations for the cow, whether recorded or otherwise
22	Number of Test Day Records	124	3	N	
23	Number of Cell Count Records	127	3	N	
24	Workability Scored	130	1	A	Y or N
25	Conformation Scored	131	1	A	Y or N
26	Candidate for Evaluation?	132	2	N	See note below

RECORD LENGTH = 133 bytes

<u>Candidate for Evaluation</u>		
Code	Category	Description
1	Too young	Daughter is a potential candidate but is too young
2	Yes	Daughter is suitable for evaluation of workability and type
3	Too old	Too old at first calving to be included as a "2 year old"
4	DNA test?	Sire and daughter have incompatible breed or birth date
5	Bad dates?	Birth date and calving date are too close together
6	>305 days	Too late for collection of work and type scores - daughter is too late in lactation
7	>1st lact	Too late for collection of work and type scores - daughter has completed first lactation
8	Left herd	Too late for collection of work and type scores - daughter is no longer in this herd

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4, 5, 6, 7

## APPENDIX D

## Formats discontinued from April 2012

The following formats have been replaced by later version formats as from April 2012.

105	Bull Pedigree Record (incorporates NASIS file)	2		
108	Mating record	1		
201	Bull ABVs for All Traits	3		
211	Cow ABVs for Production Traits	1		
212	Herd Mean ABVs for production Traits	1		
251	Bull ABVs for All Traits (extended file)	1, 2, 3*		

\* versions 2 and 3 of dif251 have never been published

The following formats are new formats from April 2012.

202	Cow ABVs for All Traits	1		
481	Genotype Nomination	2		

### Summary of differences between Versions of formats

#### **DIF105 V3**

- Field 19 Genetic codes expanded to 3 characters each with new codes being implemented (note 10), and extension to a maximum of 8 codes, renaming of trait from defect to code
- Field 21 Introduction of a first common name
- Field 22 Introduction of a second common name
- Field 23 Introduction of a field to indicate when sexed semen was first available

#### **DIF108 V2**

- Field 9 Introduced Mating start date

#### **DIF201 V4**

- Field 9 Genetic codes expanded to 3 characters each, and extension to a maximum of 8 with new codes being implemented (note 10), renaming of trait from defect to code
- Field 84 Genomic Evaluation introduced

#### **DIF211 V2**

- Field 20 Inserted APR before ASI
- Field 30 APR rank inserted after ASI rank
- Field 31 Genomic Evaluation introduced

#### **DIF212 V2**

- Field 11 Inserted APR before ASI
- Field 18 APR rank inserted before ASI rank

#### **DIF251 V4**

Note V2 and V3 were never published

- Field 10 Genetic codes expanded to 3 characters each, and extension to a maximum of 8, renaming of trait from defect to code
- Fields 100-211 Separate details on each conformation trait introduced
- Field 344 Genomic Evaluation introduced

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 105
2	Record Version Number	4	1	A	Value = 2
<b>Bull Identity</b>					
3	Bull National ID	5	9	A	See Note 3
	Bull Herdbook ID				
4	Country Code	14	3	A	See Note 2
5	Herdbook Number	17	12	A	See Note 2
6	Local Bull ID	29	15	A	
7	Date of Birth	44	8	N	yyyymmdd
8	Bull Breed	52	4	A	See Note 1
<b>Pedigree Details</b>					
9	Sire National ID	56	9	A	See Note 3
10	Dam National ID	65	9	A	See Note 3
11	MGS National ID	74	9	A	See Note 3
12	Bull name	83	40	A	
<b>NASIS Bull Details</b>					
13	NASIS Primary ID	123	7	A	
14	Bull ID	130	12	A	
15	Bull Owner Code	142	3	A	See Note 6
16	International ID	145	19	A	Interbull format - see note below
17	PT Sampling Code	164	1	A	
18	Date First Semen Available	165	8	N	yyyymmdd
19	Defect Codes	173	4x2	A	Up to 4 two-character codes - see note below
20	NASIS Active Sire Code	181	1	A	A = active, W = warning of a possible conflict with the ID of another bull, blank = not active

RECORD LENGTH = 181 bytes

## Data Format 108 V1

## Mating Record

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 108
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Details</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
<b>Mating Details</b>					
6	Date	27	8	N	yyyymmdd
7	Code	35	3	N	See mating codes below
8	Result	38	5	A	Free field for describing test result. For pregnancy diagnosis result, it is the number of days.
9	Fresh semen used	43	1	A	Y = Yes, N = No
10	Semen straw split	44	1	N	Indicates the number of inseminations per straw, 1 = Not split, 2 = Split into two parts, 3 = Split into three parts
11	Bull National ID	45	9	A	See Note 3
12	Semen Batch Number	54	10	A	
13	Inseminator Code	64	7	A	A code for each AI-Centre Technician
<b>Embryo Transfer Donor ID</b>					
<b>Herd ID</b>					
14	National Herd ID	71	7	A	See Note 8
<b>Cow Details</b>					
15	National Cow ID	78	9	A	See Note 3
16	Within-Herd Cow ID	87	6	N	

RECORD LENGTH = 92 bytes

Essential fields for ADHIS are 1, 2, 3, 4, 6, 7, 9, 10, 11 (if mating code = "1", field 13 is essential)  
Assumed sort order with all fields in ascending order: Fields 1, 2, 3, 4, 6.

### Mating event codes

ADHIS Code	Mating MNEMONIC	Mating Event Name
1	MAP	Mating-AI-Centre Technician
2	MA	Mating-AI-DIY
3	MN	Mating-Natural
4	MNC	Mating-Natural Controlled
5	ME	Mating-Embryo Implanted
10	PD	Pregnancy Test
20	OS	Pregnancy Test using Confirm
30	US	Pregnancy Test using Ultrasound
101	HO	Heat Observed With No Mating
102	HM	Heat - Multiple Ovulation / Flush



## Data Format 201 V3

## Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 3
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Defect Codes	88	4x2	A	Up to 4 two-character codes (see format 105)
<b>Bull Details</b>					
10	Date of Birth	96	8	N	yyyymmdd
11	Sire National ID	104	9	A	see Note 3
12	Dam National ID	113	9	A	see Note 3
13	MGS National ID	122	9	A	see Note 3
<b>ABV Analysis Details</b>					
14	Breed of ABV Analysis	131	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	132	8	N	yyyymmdd
16	Source of ABV Analysis	140	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
<b>Australian Profit Ranking (APR)</b>					
17	Australian Profit Ranking	141	4	N	
18	Reliability APR	145	2	N	
<b>ABVs for Production Traits</b>					
19	Australian Selection Index	147	4	N	
20	Protein	151	4	N	
21	Protein Percentage	155	5	N	Two decimal places (eg, -0.12)
22	Milk	160	5	N	
23	Fat	165	4	N	
24	Fat Percentage	169	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
25	Reliability	174	2	N	
26	Number of Daughters	176	6	N	
27	Number of Herds	182	5	N	
28	Number in Herd - most Daughters	187	4	N	
29	Number in Herd - 2nd most Daughters	191	4	N	
30	Records in progress (RIP%)	195	3	N	% of daughters with < 4 test days in 1 <sup>st</sup> lactation
<b>ABVs for Conformation Traits</b>					
31	Overall Type	198	3	N	
32	Mammary System	201	3	N	
33	Overall Feet & Legs	204	3	N	
34	Stature	207	3	N	
35	Udder Texture	210	3	N	
36	Bone Quality	213	3	N	
37	Angularity	216	3	N	
38	Muzzle Width	219	3	N	
39	Body Length	222	3	N	
40	Body Depth	225	3	N	
41	Loin Strength	228	3	N	
42	Chest Width	231	3	N	
43	Rump Length	234	3	N	

44	Pin Width	237	3	N
45	Pin Set	240	3	N
46	Foot Angle	243	3	N
47	Heel Depth	246	3	N
48	Rear Set of Leg	249	3	N
49	Rear Leg Rear View	252	3	N
50	Udder Depth	255	3	N
51	Fore Attachment	258	3	N
52	Rear Attachment Height	261	3	N
53	Rear Attachment Width	264	3	N
54	Centre Ligament	267	3	N
55	Teat Placement Fore	270	3	N
56	Teat Placement Rear (new trait)	273	3	N
57	Teat Length	276	3	N
58	Condition Score	279	3	N
	<b>Amount of data for Conformation Traits (average of key traits)</b>			
59	Reliability	282	2	N
60	Number of Daughters	284	6	N
61	Number of Herds	290	5	N
	<b>ABVs for Workability Traits</b>			
62	ABV Milking Speed	295	3	N
63	ABV Temperament	298	3	N
64	ABV Likability	301	3	N
	<b>Amount of data for Workability Traits</b>			
65	Reliability Workability Traits	304	2	N
66	Number of Daughters	306	6	N
67	Number of Herds	312	5	N
	<b>ABV and Reliability for Survival</b>			
68	ABV Survival	317	3	N
69	Reliability Survival	320	2	N
	<b>ABV for Calving Ease</b>			
70	ABV Calving Ease	322	3	N
	<b>Amount of data for Calving Ease</b>			
71	Reliability Calving Ease	325	2	N
72	Number of Calvings	327	6	N
73	Number of Herds	333	5	N
	<b>ABV for Cell Count</b>			
74	ABV Somatic Cell Count	338	3	N
	<b>Amount of data for Cell Count</b>			
75	Reliability Cell Count	341	2	N
76	Number of Daughters	343	6	N
77	Number of Herds	349	5	N
	<b>ABV for Daughter Fertility</b>			
78	ABV Daughter Fertility	354	3	N
	<b>Amount of data for Daughter Fertility</b>			
79	Reliability Daughter Fertility	357	2	N
80	Number of Daughters	359	6	N
81	Number of Herds	365	5	N
	<b>ABV for Liveweight</b>			
82	ABV Liveweight (kg)	370	3	N
	<b>Amount of data for Liveweight</b>			
83	Reliability Liveweight	373	2	N

RECORD LENGTH = 374 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3

## Data Format 211 V1

## Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
Herdbook ID					
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
<b>Cow Details</b>					
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
<b>Pedigree details</b>					
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
<b>ABV Analysis Details</b>					
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=ADHIS, I=Interbull
<b>ABVs for Production Traits</b>					
20	Australian Selection Index (ASI)	103	4	N	
21	Protein	107	4	N	
22	Protein Percentage	111	5	N	Two decimal places (eg, -0.12)
23	Milk	116	5	N	
24	Fat	121	4	N	
25	Fat Percentage	125	5	N	Two decimal places (eg, -0.12)
26	Reliability	130	2	N	
27	Rank in Australia on ASI within-breed	132	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.

RECORD LENGTH = 137 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 212 V1

## Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Herd Details</b>					
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 10)
7	Age Class Code	23	2	A	See note below
<b>ABV Analysis Details</b>					
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=ADHIS, I=Interbull
<b>Herd Average ABVs for Production Traits</b>					
11	Australian Selection Index (ASI)	35	6	N	One decimal place (eg, -123.4)
12	Protein	41	6	N	One decimal place (eg, -12.4)
13	Protein Percentage	47	6	N	Three decimal places (eg, -0.123)
14	Milk	53	7	N	One decimal place (eg, -1234.5)
15	Fat	60	6	N	One decimal place (eg, -12.4)
16	Fat Percentage	66	6	N	Three decimal places (eg, -0.123)
17	Rank of Herd on ASI	72	6	N	Rank within Australia and within Breed of ABV Analysis (field 9). This rank is only for the whole herd (Age Class = 9T) and is only supplied to purchasers of the elite herd list, otherwise zero.

RECORD LENGTH = 77 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months
2S	Senior 2	Over 30 and up to 36 months
3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 8, 7.

## Data Format 251 V1

## Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 1
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Defect Codes	107	4x2	A	Up to 4 two-character codes (see format 105)
<b>Bull Details</b>					
11	Date of Birth	115	8	N	yyyymmdd
12	Sire National ID	123	9	A	see Note 3
13	Dam National ID	132	9	A	see Note 3
14	MGS National ID	141	9	A	see Note 3
15	MGD National ID	150	9	A	see Note 3
16	Sire International ID	159	19	A	Interbull format
17	Dam International ID	178	19	A	Interbull format
18	MGS International ID	197	19	A	Interbull format
19	MGD International ID	216	19	A	Interbull format
<b>International Proof Details</b>					
20	Type of Proof	235	2	N	Interbull codes – see note below
21	Includes Foreign Proof	237	1	A	Y = information from another country is incorporated in national proof, N otherwise
22	Birth Date of First Australian Daughter	238	8	N	yyyymmdd
<b>Australian Profit Ranking (APR)</b>					
23	Australian Profit Ranking	246	4	N	
24	Reliability APR	250	2	N	
<b>Main Components of APR</b>					
25	Protein	252	4	N	
26	Milk	256	4	N	
27	Fat	260	4	N	
28	Milking Speed	264	4	N	
29	Temperament	268	4	N	
30	Survival Index	272	4	N	
31	Somatic Cell Count	276	4	N	
32	Liveweight	280	4	N	
33	Daughter Fertility	284	4	N	
<b>Components of Survival Index</b>					
34	Survival	288	4	N	
35	Likability	292	4	N	
36	Overall Type	296	4	N	
37	Udder Depth	300	4	N	
38	Pin Set	304	4	N	
<b>Components of Liveweight</b>					
39	Stature	308	4	N	
40	Body depth	312	4	N	
41	Chest width	316	4	N	

<b>ABVs for Production Traits</b>					
42	Australian Selection Index	320	4	N	
43	Protein	324	4	N	
44	Protein Percentage	328	5	N	Two decimal places (eg, -0.12)
45	Milk	333	5	N	
46	Fat	338	4	N	
47	Fat Percentage	342	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
48	Reliability	347	2	N	
49	Number of Daughters	349	6	N	
50	Number of Herds	355	5	N	
51	Effective Daughter Contribution	360	6	N	
52	Number in Herd - most Daughters	366	4	N	
53	Number in Herd - 2nd most Daughters	370	4	N	
54	Records in Progress (RIP%)	374	3	N	% of daughters with < 4 test days in 1st lactation
<b>International Daughter Numbers for Production Traits</b>					
55	Number of Countries With Daughters	377	2	N	
56	Country With Most Daughters	379	3	A	see note 2 for list of country codes
57	Number of Daughters in This Country	382	6	N	
58	Country With Second Most Daughters	388	3	A	see note 2 for list of country codes
59	Number of Daughters in This Country	391	6	N	
60	Country With Third Most Daughters	397	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	400	6	N	
62	Country With Fourth Most Daughters	406	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	409	6	N	
64	Country With Fifth Most Daughters	415	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	418	6	N	
<b>ABV Analysis Details for Production Traits</b>					
66	Breed of ABV Analysis	424	1	A	single character breed code - see Note 1
67	Date of ABV Analysis	425	8	N	yyyymmdd
68	Source of ABV Analysis	433	1	A	A = ABV, I = ABV(i)
69	Proof publishable	434	1	A	P = publishable, U = unpublishable
70	Foreign proof contribution	435	1	A	A = Aus only, I = International only, B = both
<b>ABVs for Conformation Traits</b>					
71	Overall Type	436	3	N	
72	Mammary System	439	3	N	
73	Overall Feet and Legs	442	3	N	
74	Stature	445	3	N	
75	Udder Texture	448	3	N	
76	Bone Quality	451	3	N	
77	Angularity	454	3	N	
78	Muzzle Width	457	3	N	
79	Body Length	460	3	N	
80	Body Depth	463	3	N	
81	Loin Strength	466	3	N	
82	Chest Width	469	3	N	
83	Rump Length	472	3	N	
84	Pin Width	475	3	N	
85	Pin Set	478	3	N	
86	Foot Angle	481	3	N	
87	Heel Depth	484	3	N	
88	Rear Set of Leg	487	3	N	
89	Rear Leg Rear View	490	3	N	
90	Udder Depth	493	3	N	
91	Fore Attachment	496	3	N	
92	Rear Attachment Height	499	3	N	
93	Rear Attachment Width	502	3	N	
94	Centre Ligament	505	3	N	

95	Teat Placement Fore	508	3	N	
96	Teat Placement Rear	511	3	N	
97	Teat Length	514	3	N	
98	Condition Score	517	3	N	
<b>Amount of data for Conformation Traits (average of key traits)</b>					
99	Reliability	520	2	N	
100	Number of Daughters	522	6	N	
101	Number of Herds	528	5	N	
102	Effective Daughter Contribution	533	6	N	
<b>International Daughter Numbers for Conformation Traits</b>					
103	Number of Countries With Daughters	539	2	N	
104	Country With Most Daughters	541	3	A	see note 2 for list of country codes
105	Number of Daughters in This Country	544	6	N	
106	Country With Second Most Daughters	550	3	A	see note 2 for list of country codes
107	Number of Daughters in This Country	553	6	N	
108	Country With Third Most Daughters	559	3	A	see note 2 for list of country codes
109	Number of Daughters in This Country	562	6	N	
110	Country With Fourth Most Daughters	568	3	A	see note 2 for list of country codes
111	Number of Daughters in This Country	571	6	N	
112	Country With Fifth Most Daughters	577	3	A	see note 2 for list of country codes
113	Number of Daughters in This Country	580	6	N	
<b>ABV Analysis Details for Conformation Traits</b>					
114	Breed of ABV Analysis	586	1	A	single character breed code - see Note 1
115	Date of ABV Analysis	587	8	N	yyyymmdd
116	Source of ABV Analysis	595	1	A	A = ABV, I = ABV(i)
117	Proof publishable	596	1	A	P = publishable, U = unpublishable
118	Foreign proof contribution	597	1	A	A = Aus only, I = International only, B = both
<b>ABVs for Workability Traits</b>					
119	ABV Milking Speed	598	3	N	
120	ABV Temperament	601	3	N	
121	ABV Likability	604	3	N	
<b>Amount of data for Workability Traits</b>					
122	Reliability Workability Traits	607	2	N	
123	Number of Daughters	609	6	N	
124	Number of Herds	615	5	N	
125	Effective Daughter Contribution	620	6	N	
<b>International Daughter Numbers for Workability Traits</b>					
126	Number of Countries With Daughters	626	2	N	
127	Country With Most Daughters	628	3	A	see note 2 for list of country codes
128	Number of Daughters in This Country	631	6	N	
129	Country With Second Most Daughters	637	3	A	see note 2 for list of country codes
130	Number of Daughters in This Country	640	6	N	
131	Country With Third Most Daughters	646	3	A	see note 2 for list of country codes
132	Number of Daughters in This Country	649	6	N	
133	Country With Fourth Most Daughters	655	3	A	see note 2 for list of country codes
134	Number of Daughters in This Country	658	6	N	
135	Country With Fifth Most Daughters	664	3	A	see note 2 for list of country codes
136	Number of Daughters in This Country	667	6	N	
<b>ABV Analysis Details for Workability Traits</b>					
137	Breed of ABV Analysis	673	1	A	single character breed code - see Note 1
138	Date of ABV Analysis	674	8	N	yyyymmdd
139	Source of ABV Analysis	682	1	A	A = ABV, I = ABV(i)
140	Proof publishable	683	1	A	P = publishable, U = unpublishable
141	Foreign proof contribution	684	1	A	A = Aus only, I = International only, B = both

<b>Survival Solution</b>					
142	Survival Solution	685	3	N	
143	Reliability Survival Solution	688	2	N	
<b>ABV for Survival</b>					
144	ABV Survival	690	3	N	
<b>Amount of data for Survival</b>					
145	Reliability Survival	693	2	N	
146	Number of Daughters	695	6	N	
147	Number of Herds	701	5	N	
148	Effective Daughter Contribution	706	6	N	
<b>International Daughter Numbers for Survival</b>					
149	Number of Countries With Daughters	712	2	N	
150	Country With Most Daughters	714	3	A	see note 2 for list of country codes
151	Number of Daughters in This Country	717	6	N	
152	Country With Second Most Daughters	723	3	A	see note 2 for list of country codes
153	Number of Daughters in This Country	726	6	N	
154	Country With Third Most Daughters	732	3	A	see note 2 for list of country codes
155	Number of Daughters in This Country	735	6	N	
156	Country With Fourth Most Daughters	741	3	A	see note 2 for list of country codes
157	Number of Daughters in This Country	744	6	N	
158	Country With Fifth Most Daughters	750	3	A	see note 2 for list of country codes
159	Number of Daughters in This Country	753	6	N	
<b>ABV Analysis Details for Survival</b>					
160	Breed of ABV Analysis	759	1	A	single character breed code - see Note 1
161	Date of ABV Analysis	760	8	N	yyyymmdd
162	Source of ABV Analysis	768	1	A	A = ABV, I = ABV(i)
163	Proof publishable	769	1	A	P = publishable, U = unpublishable
164	Foreign proof contribution	770	1	A	A = Aus only, I = International only, B = both
<b>ABV for Calving Ease</b>					
165	ABV Calving Ease	771	3	N	
<b>Amount of data for Calving Ease</b>					
166	Reliability Calving Ease	774	2	N	
167	Number of Calvings	776	6	N	
168	Number of Herds	782	5	N	
169	Effective Calvings	787	6	N	
<b>International Daughter Numbers for Calving Ease</b>					
170	Number of Countries With Daughters	793	2	N	
171	Country With Most Daughters	795	3	A	see note 2 for list of country codes
172	Number of Daughters in This Country	798	6	N	
173	Country With Second Most Daughters	804	3	A	see note 2 for list of country codes
174	Number of Daughters in This Country	807	6	N	
175	Country With Third Most Daughters	813	3	A	see note 2 for list of country codes
176	Number of Daughters in This Country	816	6	N	
177	Country With Fourth Most Daughters	822	3	A	see note 2 for list of country codes
178	Number of Daughters in This Country	825	6	N	
179	Country With Fifth Most Daughters	831	3	A	see note 2 for list of country codes
180	Number of Daughters in This Country	834	6	N	
<b>ABV Analysis Details for Calving Ease</b>					
181	Breed of ABV Analysis	840	1	A	single character breed code - see Note 1
182	Date of ABV Analysis	841	8	N	yyyymmdd
183	Source of ABV Analysis	849	1	A	A = ABV, I = ABV(i)
184	Proof publishable	850	1	A	P = publishable, U = unpublishable
185	Foreign proof contribution	851	1	A	A = Aus only, I = International only, B = both



<b>ABV for Somatic Cell Count</b>					
186	ABV Somatic Cell Count	852	3	N	
<b>Amount of data for Somatic Cell Count</b>					
187	Reliability Somatic Cell Count	855	2	N	
188	Number of Daughters	857	6	N	
189	Number of Herds	863	5	N	
190	Effective Daughter Contribution	868	6	N	
<b>International Daughter Numbers for Somatic Cell Count</b>					
191	Number of Countries With Daughters	874	2	N	
192	Country With Most Daughters	876	3	A	see note 2 for list of country codes
193	Number of Daughters in This Country	879	6	N	
194	Country With Second Most Daughters	885	3	A	see note 2 for list of country codes
195	Number of Daughters in This Country	888	6	N	
196	Country With Third Most Daughters	894	3	A	see note 2 for list of country codes
197	Number of Daughters in This Country	897	6	N	
198	Country With Fourth Most Daughters	903	3	A	see note 2 for list of country codes
199	Number of Daughters in This Country	906	6	N	
200	Country With Fifth Most Daughters	912	3	A	see note 2 for list of country codes
201	Number of Daughters in This Country	915	6	N	
<b>ABV Analysis Details for Somatic Cell Count</b>					
202	Breed of ABV Analysis	921	1	A	single character breed code - see Note 1
203	Date of ABV Analysis	922	8	N	yyyymmdd
204	Source of ABV Analysis	930	1	A	A = ABV, I = ABV(i)
205	Proof publishable	931	1	A	P = publishable, U = unpublishable
206	Foreign proof contribution	932	1	A	A = Aus only, I = International only, B = both
<b>ABV for Daughter Fertility</b>					
207	ABV Daughter Fertility	933	3	N	
<b>Amount of data for Daughter Fertility</b>					
208	Reliability Daughter Fertility	936	2	N	
209	Number of Daughters	938	6	N	
210	Number of Herds	944	5	N	
211	Effective Daughter Contribution	949	6	N	
<b>International Daughter Numbers for Daughter Fertility</b>					
212	Number of Countries With Daughters	955	2	N	
213	Country With Most Daughters	957	3	A	see note 2 for list of country codes
214	Number of Daughters in This Country	960	6	N	
215	Country With Second Most Daughters	966	3	A	see note 2 for list of country codes
216	Number of Daughters in This Country	969	6	N	
217	Country With Third Most Daughters	975	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	978	6	N	
219	Country With Fourth Most Daughters	984	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	987	6	N	
221	Country With Fifth Most Daughters	993	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	996	6	N	
<b>ABV Analysis Details for Daughter Fertility</b>					
223	Breed of ABV Analysis	1002	1	A	single character breed code - see Note 1
224	Date of ABV Analysis	1003	8	N	yyyymmdd
225	Source of ABV Analysis	1011	1	A	A = ABV, I = ABV(i)
226	Proof publishable	1012	1	A	P = publishable, U = unpublishable
227	Foreign proof contribution	1013	1	A	A = Aus only, I = International only, B = both
<b>ABV and Reliability for Liveweight</b>					
228	ABV Liveweight	1014	3	N	
229	Reliability Liveweight	1017	2	N	

**ABV Analysis Details for Liveweight**

230	Breed of ABV Analysis	1019	1	A	single character breed code - see Note 1
231	Date of ABV Analysis	1020	8	N	yyyymmdd
232	Source of ABV Analysis	1028	1	A	A = ABV, I = ABV(i)
233	Proof publishable	1029	1	A	P = publishable, U = unpublishable
234	Foreign proof contribution	1030	1	A	A = Aus only, I = International only, B = both

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RECORD LENGTH = 1030 bytes

## APPENDIX E

## Formats discontinued from 1<sup>st</sup> March 2015

The following formats have been replaced by later version formats as from 1<sup>st</sup> March 2015.

Format	Data Record for discontinued formats	Version	Page	Date of Update
201	Bull ABVs for All Traits	4	E-2	
202	Cow ABVs for All Traits	1	E-4	
211	Cow ABVs for Production Traits	2	E-6	
212	Herd Mean ABVs for Production Traits	2	E-7	
251	Bull ABVs for All Traits (extended file)*	5*	E-8	
261	Cow ABVs for All Traits (extended file)#	1		

\* versions 2, 3 & 4 of dif251 have never been published

# versions 1 of dif261 has never been published

### Summary of differences between Versions of formats

#### **DIF201 V5**

- Field 17 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
- Field 18 APR reliability replaced with BPI reliability
- Field 85 Introduction of the Health Weighted Index (HWI)
- Field 86 Reliability for HWI
- Field 87 Introduction of the Type Weighted Index (TWI)
- Field 88 Reliability for TWI
- Field 89 Introduction of the ABV Residual Survival
- Field 90 Reliability for Residual Survival
- Field 91 Introduction of the ABV Feed Efficiency
- Field 92 Reliability for Feed Efficiency

#### **DIF202 V2**

- Field 21 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
- Field 22 APR reliability replaced with BPI reliability
- Field 74 Introduction of the Health Weighted Index (HWI)
- Field 75 Reliability for HWI
- Field 76 Introduction of the Type Weighted Index (TWI)
- Field 77 Reliability for TWI
- Field 78 Introduction of the ABV Residual Survival
- Field 79 Reliability for Residual Survival
- Field 80 Introduction of the ABV Feed Efficiency
- Field 81 Reliability for Feed Efficiency

#### **DIF211 V3**

- Field 20 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)
- Field 21 APR reliability replaced with BPI reliability
- Field 30 Rank in Australia on APR has been replaced by the Rank in Australia on BPI
- Field 32 Introduction of the Health Weighted Index (HWI)
- Field 33 Reliability for HWI
- Field 34 Introduction of the Type Weighted Index (TWI)
- Field 35 Reliability for TWI

Field 36 Introduction of the Rank in Australia on HWI  
Field 36 Introduction of the Rank in Australia on TWI

### **DIF212 V3**

Field 11 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)  
Field 20 Introduction of the Health Weighted Index (HWI)  
Field 21 Introduction of the Type Weighted Index (TWI)  
Field 22 Rank of herd on the Health Weighted Index (HWI)  
Field 23 Rank of herd on the Type Weighted Index (TWI)

### **DIF251 V6**

Note V2, V3, V4 were never published

Field 23 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)  
Field 24 APR reliability replaced with BPI reliability  
Field 30 Survival Index has been replaced by Residual Survival  
Field 32 Liveweight has been replaced by Feed Efficiency  
Field 34 Inclusion of Mammary System  
Field 35 Inclusion of Overall Type  
Field 36 Inclusion of Udder depth  
Field 37 Inclusion of Pin Set

- With the above inclusions all other fields are pushed back 4 fields and 16 characters

Field 349 Introduction of the Health Weighted Index (HWI)  
Field 350 Reliability for HWI  
Field 351 Introduction of the Type Weighted Index (TWI)  
Field 352 Reliability for TWI  
Field 353 Introduction of the ABV Residual Survival  
Field 354 Reliability for Residual Survival  
Field 355 Introduction of the ABV Feed Efficiency  
Field 356 Reliability for Feed Efficiency

### **DIF261 V2 (ADHIS Internal Use Only)**

Note V1 was never published

Note V2 based off vJS

Field 10 Updated definition for Genetics Codes  
Field 29 Australian Profit Ranking (APR) has been replaced by the new Balanced Performance Index (BPI)  
Field 30 APR reliability replaced with BPI reliability  
Field 127 Introduction of the Health Weighted Index (HWI)  
Field 128 Reliability for HWI  
Field 129 Introduction of the Type Weighted Index (TWI)  
Field 130 Reliability for TWI  
Field 131 Introduction of the ABV Residual Survival  
Field 132 Reliability for Residual Survival  
Field 133 Introduction of the ABV Feed Efficiency  
Field 134 Reliability for Feed Efficiency  
Field 135 Inclusion of Rank in Australia on HWI  
Field 136 Inclusion of Rank in Australia on TWI

## Data Format 201 V4

## Bull ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 201
2	Record Version Number	4	1	A	Value = 4
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	Name	48	40	A	
9	Genetic Codes	88	8x3	A	Up to 8 three-character codes (see note 10)
<b>Bull Details</b>					
10	Date of Birth	112	8	N	yyyymmdd
11	Sire National ID	120	9	A	see Note 3
12	Dam National ID	129	9	A	see Note 3
13	MGS National ID	138	9	A	see Note 3
<b>ABV Analysis Details</b>					
14	Breed of ABV Analysis	147	1	A	single character breed code - see Note 1
15	Date of ABV Analysis	148	8	N	yyyymmdd
16	Source of ABV Analysis	156	1	A	A = ABV, I = prod. + conf. ABV(i), P = production ABV(i) only, C = conformation ABV(i) only
<b>Australian Profit Ranking (APR)</b>					
17	Australian Profit Ranking	157	4	N	
18	Reliability APR	161	2	N	
<b>ABVs for Production Traits</b>					
19	Australian Selection Index	163	4	N	
20	Protein	167	4	N	
21	Protein Percentage	171	5	N	Two decimal places (eg, -0.12)
22	Milk	176	5	N	
23	Fat	181	4	N	
24	Fat Percentage	185	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
25	Reliability	190	2	N	
26	Number of Daughters	192	6	N	
27	Number of Herds	198	5	N	
28	Number in Herd - most Daughters	203	4	N	
29	Number in Herd - 2nd most Daughters	207	4	N	
30	Records in progress (RIP%)	211	3	N	% of daughters with < 4 test days in 1 <sup>st</sup> lactation
<b>ABVs for Conformation Traits</b>					
31	Overall Type	214	3	N	
32	Mammary System	217	3	N	
33	Overall Feet & Legs	220	3	N	
34	Stature	223	3	N	
35	Udder Texture	226	3	N	
36	Bone Quality	229	3	N	
37	Angularity	232	3	N	
38	Muzzle Width	235	3	N	
39	Body Length	238	3	N	
40	Body Depth	241	3	N	
41	Loin Strength	244	3	N	
42	Chest Width	247	3	N	
43	Rump Length	250	3	N	

44	Pin Width	253	3	N
45	Pin Set	256	3	N
46	Foot Angle	259	3	N
47	Heel Depth	262	3	N
48	Rear Set of Leg	265	3	N
49	Rear Leg Rear View	268	3	N
50	Udder Depth	271	3	N
51	Fore Attachment	274	3	N
52	Rear Attachment Height	277	3	N
53	Rear Attachment Width	280	3	N
54	Centre Ligament	283	3	N
55	Teat Placement Fore	286	3	N
56	Teat Placement Rear (new trait)	289	3	N
57	Teat Length	292	3	N
58	Condition Score	295	3	N
<b>Amount of data for Conformation Traits (average of key traits)</b>				
59	Reliability	298	2	N
60	Number of Daughters	300	6	N
61	Number of Herds	306	5	N
<b>ABVs for Workability Traits</b>				
62	ABV Milking Speed	311	3	N
63	ABV Temperament	314	3	N
64	ABV Likability	317	3	N
<b>Amount of data for Workability Traits</b>				
65	Reliability Workability Traits	320	2	N
66	Number of Daughters	322	6	N
67	Number of Herds	328	5	N
<b>ABV and Reliability for Survival</b>				
68	ABV Survival	333	3	N
69	Reliability Survival	336	2	N
<b>ABV for Calving Ease</b>				
70	ABV Calving Ease	338	3	N
<b>Amount of data for Calving Ease</b>				
71	Reliability Calving Ease	341	2	N
72	Number of Calvings	343	6	N
73	Number of Herds	349	5	N
<b>ABV for Cell Count</b>				
74	ABV Somatic Cell Count	354	3	N
<b>Amount of data for Cell Count</b>				
75	Reliability Cell Count	357	2	N
76	Number of Daughters	359	6	N
77	Number of Herds	365	5	N
<b>ABV for Daughter Fertility</b>				
78	ABV Daughter Fertility	370	3	N
<b>Amount of data for Daughter Fertility</b>				
79	Reliability Daughter Fertility	373	2	N
80	Number of Daughters	375	6	N
81	Number of Herds	381	5	N
<b>ABV for Liveweight</b>				
82	ABV Liveweight (kg)	386	3	N
<b>Amount of data for Liveweight</b>				
83	Reliability Liveweight	389	2	N
<b>Genomics Evaluation</b>				
84	Genomics Evaluation	391	1	A

g=genomics included, blank otherwise

RECORD LENGTH = 391 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3

## Data Format 202 V1

## Cow ABVs for All Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 202
2	Record Version Number	4	1	A	Value = 1
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See DIF Document Note 8
<b>Cow Identity</b>					
4	National ID	12	9	A	See Note 3
5	Within-Herd Cow ID	21	6	N	
<b>Herdbook ID</b>					
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
8	Genetic Codes	42	8x3	A	Up to 8 three-character codes (see note 10)
<b>Cow Details</b>					
9	Breed of cow	66	4	A	See Note 1
10	Date of Birth	70	8	N	yyyymmdd
11	Date of Latest Calving	78	8	N	yyyymmdd
12	Number of Lactations in ABV analysis	86	2	N	
13	Crossbreed	88	1	A	'X' if crossbreed, otherwise space
14	DPC Code	89	1	A	See Note 4
<b>Pedigree details</b>					
15	Sire National ID	90	9	A	see Note 3
16	Dam National ID	99	9	A	see Note 3
17	MGS National ID	108	9	A	see Note 3
<b>ABV Analysis Details</b>					
18	Breed of ABV Analysis	117	1	A	single character breed code - see Note 1
19	Date of ABV Analysis	118	8	N	yyyymmdd
20	Source of ABV Analysis	126	1	A	A = ABV, I = ABV(i)
<b>Australian Profit Ranking (APR)</b>					
21	Australian Profit Ranking	127	4	N	
22	Reliability APR	131	2	N	
<b>ABVs for Production Traits</b>					
23	Australian Selection Index	133	4	N	
24	Protein	137	4	N	
25	Protein Percentage	141	5	N	Two decimal places (eg, -0.12)
26	Milk	146	5	N	
27	Fat	151	4	N	
28	Fat Percentage	155	5	N	Two decimal places (eg, -0.12)
<b>Amount of data for Production Traits</b>					
29	Reliability	160	2	N	
<b>ABVs for Conformation Traits</b>					
30	Overall Type	162	3	N	
31	Mammary System	165	3	N	
32	Overall Feet & Legs	168	3	N	
33	Stature	171	3	N	
34	Udder Texture	174	3	N	
35	Bone Quality	177	3	N	
36	Angularity	180	3	N	
37	Muzzle Width	183	3	N	
38	Body Length	186	3	N	
39	Body Depth	189	3	N	
40	Loin Strength	192	3	N	
41	Chest Width	195	3	N	
42	Rump Length	198	3	N	
43	Pin Width	201	3	N	

44	Pin Set	204	3	N
45	Foot Angle	207	3	N
46	Heel Depth	210	3	N
47	Rear Set of Leg	213	3	N
48	Rear Leg Rear View	216	3	N
49	Udder Depth	219	3	N
50	Fore Attachment	222	3	N
51	Rear Attachment Height	225	3	N
52	Rear Attachment Width	228	3	N
53	Centre Ligament	231	3	N
54	Teat Placement Fore	234	3	N
55	Teat Placement Rear (new trait)	237	3	N
56	Teat Length	240	3	N
57	Condition Score	243	3	N
	<b>Amount of data for Conformation Traits (average of key traits)</b>			
58	Reliability	246	2	N
	<b>ABVs and Reliability for Workability Traits</b>			
59	ABV Milking Speed	248	3	N
60	ABV Temperament	251	3	N
61	ABV Likability	254	3	N
62	Reliability Workability Traits	257	2	N
	<b>ABV and Reliability for Survival</b>			
63	ABV Survival	259	3	N
64	Reliability Survival	262	2	N
	<b>ABV and Reliability for Calving Ease</b>			
65	ABV Calving Ease	264	3	N
66	Reliability Calving Ease	267	2	N
	<b>ABV and Reliability for Cell Count</b>			
67	ABV Somatic Cell Count	269	3	N
68	Reliability Cell Count	272	2	N
	<b>ABV and Reliability for Daughter Fertility</b>			
69	ABV Daughter Fertility	274	3	N
70	Reliability Daughter Fertility	275	2	N
	<b>ABV and Reliability for Liveweight</b>			
71	ABV Liveweight (kg)	277	3	N
72	Reliability Liveweight	280	2	N
	<b>Genomic Evaluation</b>			
73	Genomic evaluation	282	1	A

g=genomics included, blank otherwise

RECORD LENGTH = 382 bytes

Assumed sort order with all fields in ascending order: Fields 1, 2, 3



## Data Format 211 V2

## Cow ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 211
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Cow Identity</b>					
4	National Cow ID	12	9	A	See Note 3
5	Within-Herd Cow ID Herdbook ID	21	6	N	
6	Country Code	27	3	A	See Note 2
7	Herdbook Number	30	12	A	See Note 2
<b>Cow Details</b>					
8	Breed of cow	42	4	A	See Note 1
9	Date of Birth	46	8	N	yyyymmdd
10	Date of Latest Calving	54	8	N	yyyymmdd
11	Number of Lactations in ABV analysis	62	2	N	
12	Crossbreed	64	1	A	'X' if crossbreed, otherwise space
13	DPC Code	65	1	A	See Note 4
<b>Pedigree details</b>					
14	Sire National ID	66	9	A	See Note 3
15	Dam National ID	75	9	A	See Note 3
16	MGS National ID	84	9	A	See Note 3
<b>ABV Analysis Details</b>					
17	Breed of ABV Analysis	93	1	A	single character breed code - see Note 1
18	Date of ABV Analysis	94	8	N	yyyymmdd
19	Source of ABV Analysis	102	1	A	A=ADHIS, I=Interbull
<b>Australian Profit Ranking (APR)</b>					
20	APR	103	4	N	
21	APR reliability	107	2	N	
<b>ABVs for Production Traits</b>					
22	Australian Selection Index (ASI)	109	4	N	
23	Protein	113	4	N	
24	Protein Percentage	117	5	N	Two decimal places (eg, -0.12)
25	Milk	122	5	N	
26	Fat	127	4	N	
27	Fat Percentage	131	5	N	Two decimal places (eg, -0.12)
28	Reliability	136	2	N	
29	Rank in Australia on ASI within-breed	138	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
30	Rank in Australia on APR within-breed	144	6	N	Rank within Australia and within Breed of ABV Analysis (field 17) for cows with Date of ABV Analysis (field 18) minus Latest Calving Date (field 10) less than 18 months, otherwise zero.
31	Genomic Evaluation	150	1	A	g = genomics included

RECORD LENGTH = 150 bytes

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 4.

## Data Format 212 V2

## Herd Mean ABVs for Production Traits

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 212
2	Record Version Number	4	1	A	Value = 2
<b>Herd ID</b>					
3	National Herd ID	5	7	A	See Note 8
<b>Herd Details</b>					
4	DPC Code	12	1	A	See Note 4
5	Number of cows with ABVs	13	5	N	
6	Number of cows in Herd Averages	18	5	N	Number of straightbred cows whose latest calving date is within 30 months of the Date of ABV Analysis (field 9)
7	Age Class Code	23	2	A	See note below
<b>ABV Analysis Details</b>					
8	Breed of ABV Analysis	25	1	A	single character breed code - see Note 1
9	Date of ABV Analysis	26	8	N	yyyymmdd
10	Source of ABV Analysis	34	1	A	A=ADHIS, I=Interbull
<b>Herd Average ABVs for Production Traits</b>					
11	Australian Profit Ranking (APR)	35	6	N	One decimal place (eg, -123.4)
12	Australian Selection Index (ASI)	41	6	N	One decimal place (eg, -123.4)
13	Protein	47	6	N	One decimal place (eg, -12.4)
14	Protein Percentage	53	6	N	Three decimal places (eg, -0.123)
15	Milk	60	7	N	One decimal place (eg, -1234.5)
16	Fat	66	6	N	One decimal place (eg, -12.4)
17	Fat Percentage	72	6	N	Three decimal places (eg, -0.123)
18	Rank of Herd on APR	78	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.
19	Rank of Herd on ASI	84	6	N	Rank within Australia and within Breed of ABV Analysis (field 8). This rank is only for the whole herd (Age Class = 9T) otherwise zero.

RECORD LENGTH = 89 bytes

Note : Herd mean ABVs are supplied for the following age classes (field 7) with one record per class per breed of analysis (field 8).

Code	Class	Age at calving
2J	Junior 2	Up to 30 months
2S	Senior 2	Over 30 and up to 36 months
3J	Junior 3	Over 36 and up to 42 months
3S	Senior 3	Over 42 and up to 48 months
4J	Junior 4	Over 48 and up to 54 months
4S	Senior 4	Over 54 and up to 60 months
9M	Mature	Over 72 months
9T		All age groups combined

Assumed sort order with all fields in ascending order : Fields 1, 2, 3, 8, 7.

## Data Format 251 V5

## Bull ABVs for All Traits (extended file)

Field No.	Field Name	Start Column	Length	Numeric /Alpha	Comments
1	Record Type	1	3	N	Value = 251
2	Record Version Number	4	1	A	Value = 5
<b>Bull Identity</b>					
3	National ID	5	9	A	See Note 3
4	NASIS Bull ID	14	12	A	If NASIS
5	NASIS Primary ID Herdbook ID	26	7	A	If NASIS
6	Country Code	33	3	A	See Note 2
7	Herdbook Number	36	12	A	See Note 2
8	International ID	48	19	A	Interbull format
9	Name	67	40	A	
10	Genetic Codes	107	8x3	A	Up to 8 three-character codes (see note 10)
<b>Bull Details</b>					
11	Date of Birth	131	8	N	yyyymmdd
12	Sire National ID	139	9	A	see Note 3
13	Dam National ID	148	9	A	see Note 3
14	MGS National ID	157	9	A	see Note 3
15	MGD National ID	166	9	A	see Note 3
16	Sire International ID	175	19	A	Interbull format
17	Dam International ID	194	19	A	Interbull format
18	MGS International ID	213	19	A	Interbull format
19	MGD International ID	232	19	A	Interbull format
<b>International Proof Details</b>					
20	Type of Proof	251	2	N	Interbull codes – see note below
21	Includes Foreign Proof	253	1	A	"Y = information from another country is incorporated in national proof, N otherwise"
22	Birth Date of First Australian Daughter	254	8	N	yyyymmdd
<b>Australian Profit Ranking (APR)</b>					
23	Australian Profit Ranking	262	4	N	
24	Reliability APR	266	2	N	
<b>Main Components of APR</b>					
25	Protein	268	4	N	
26	Milk	272	4	N	
27	Fat	276	4	N	
28	Milking Speed	280	4	N	
29	Temperament	284	4	N	
30	Survival Index	288	4	N	
31	Somatic Cell Count	292	4	N	
32	Liveweight	296	4	N	
33	Cow Fertility	300	4	N	
<b>Components of Survival Index</b>					
34	Survival	304	4	N	
35	Likability	308	4	N	
36	Overall Type	312	4	N	
37	Udder Depth	316	4	N	
38	Pin Set	320	4	N	
<b>Components of Liveweight</b>					
39	Stature	324	4	N	
40	Body depth	328	4	N	
41	Chest width	332	4	N	
<b>ABVs for Production Traits</b>					
42	Australian Selection Index	336	4	N	
43	Protein	340	4	N	

44	Protein Percentage	344	5	N	"Two decimal places (eg -0.12)"
45	Milk	349	5	N	
46	Fat	354	4	N	
47	Fat Percentage	358	5	N	"Two decimal places (eg -0.12)"
<b>Amount of data for Production Traits</b>					
48	Reliability	363	2	N	
49	Number of Daughters	365	6	N	
50	Number of Herds	371	5	N	
51	Number of Effective Daughters	376	6	N	
52	Number in Herd - most Daughters	382	4	N	
53	Number in Herd - 2nd most Daughters	386	4	N	
54	Records in Progress (RIP%)	390	3	N	% of daughters with < 4 test days in 1st lactation
<b>International Daughter Numbers for Production Traits</b>					
55	Number of Countries With Daughters	393	2	N	
56	Country With Most Daughters	395	3	A	see note 2 for list of country codes
57	Number of Daughters in This Country	398	6	N	
58	Country With Second Most Daughters	404	3	A	see note 2 for list of country codes
59	Number of Daughters in This Country	407	6	N	
60	Country With Third Most Daughters	413	3	A	see note 2 for list of country codes
61	Number of Daughters in This Country	416	6	N	
62	Country With Fourth Most Daughters	422	3	A	see note 2 for list of country codes
63	Number of Daughters in This Country	425	6	N	
64	Country With Fifth Most Daughters	431	3	A	see note 2 for list of country codes
65	Number of Daughters in This Country	434	6	N	
<b>ABV Analysis Details for Production Traits</b>					
66	Breed of ABV Analysis	440	1	A	single character breed code - see Note 1
67	Date of ABV Analysis	441	8	N	yyyymmdd
68	Source of ABV Analysis	449	1	A	"A = ABV, I = ABV(i)"
69	Proof publishable	450	1	A	"P = publishable, U = unpublishable"
70	Foreign proof contribution	451	1	A	"A = Aus only, I = International only, B = both"
<b>ABVs for Conformation Traits</b>					
71	Overall Type	452	3	N	
72	Overall Feet and Legs	455	3	N	
73	Mammary System	458	3	N	
74	Stature	461	3	N	
75	Udder Texture	464	3	N	
76	Bone Quality	467	3	N	
77	Angularity	470	3	N	
78	Muzzle Width	473	3	N	
79	Body Length	476	3	N	
80	Body Depth	479	3	N	
81	Chest Width	482	3	N	
82	Rump Length	485	3	N	
83	Pin Width	488	3	N	
84	Pin Set	491	3	N	
85	Foot Angle	494	3	N	
86	Rear Set of Leg	497	3	N	
87	Rear Leg Rear View	500	3	N	
88	Heel Depth	503	3	N	
89	Udder Depth	506	3	N	
90	Fore Attachment	509	3	N	
91	Rear Attachment Height	512	3	N	
92	Rear Attachment Width	515	3	N	
93	Centre Ligament	518	3	N	
94	Teat Placement Fore	521	3	N	
95	Teat Length	524	3	N	
96	Loin Strength	527	3	N	
97	Front End Height	530	3	N	

98	Teat Placement Rear	533	3	N
99	Condition Score	536	3	N
	<b>Amount of data for Conformation Traits</b>			
100	Reliability	539	2	N
101	Number of Daughters	541	6	N
102	Number of Herds	547	5	N
103	Number of Effective Daughters	552	6	N
	<b>Amount of data for Overall Type</b>			
104	Reliability	558	2	N
105	Number of Daughters	560	6	N
106	Number of Herds	566	5	N
107	Number of Effective Daughters	571	6	N
	<b>Amount of data for Mammary System</b>			
108	Reliability	577	2	N
109	Number of Daughters	579	6	N
110	Number of Herds	585	5	N
111	Number of Effective Daughters	590	6	N
	<b>Amount of data for Stature</b>			
112	Reliability	596	2	N
113	Number of Daughters	598	6	N
114	Number of Herds	604	5	N
115	Number of Effective Daughters	609	6	N
	<b>Amount of data for Udder Texture</b>			
116	Reliability	615	2	N
117	Number of Daughters	617	6	N
118	Number of Herds	623	5	N
119	Number of Effective Daughters	628	6	N
	<b>Amount of data for Bone Quality</b>			
120	Reliability	634	2	N
121	Number of Daughters	636	6	N
122	Number of Herds	642	5	N
123	Number of Effective Daughters	647	6	N
	<b>Amount of data for Angularity</b>			
124	Reliability	653	2	N
125	Number of Daughters	655	6	N
126	Number of Herds	661	5	N
127	Number of Effective Daughters	666	6	N
	<b>Amount of data for Muzzle Width</b>			
128	Reliability	672	2	N
129	Number of Daughters	674	6	N
130	Number of Herds	680	5	N
131	Number of Effective Daughters	685	6	N
	<b>Amount of data for Body Length</b>			
132	Reliability	691	2	N
133	Number of Daughters	693	6	N
134	Number of Herds	699	5	N
135	Number of Effective Daughters	704	6	N
	<b>Amount of data for Body Depth</b>			
136	Reliability	710	2	N
137	Number of Daughters	712	6	N
138	Number of Herds	718	5	N
139	Number of Effective Daughters	723	6	N
	<b>Amount of data for Chest Width</b>			
140	Reliability	729	2	N
141	Number of Daughters	731	6	N
142	Number of Herds	737	5	N
143	Number of Effective Daughters	742	6	N
	<b>Amount of data for Rump Length</b>			
144	Reliability	748	2	N

145	Number of Daughters	750	6	N
146	Number of Herds	756	5	N
147	Number of Effective Daughters	761	6	N
	<b>Amount of data for Pin Width</b>			
148	Reliability	767	2	N
149	Number of Daughters	769	6	N
150	Number of Herds	775	5	N
151	Number of Effective Daughters	780	6	N
	<b>Amount of data for Pin Set</b>			
152	Reliability	786	2	N
153	Number of Daughters	788	6	N
154	Number of Herds	794	5	N
155	Number of Effective Daughters	799	6	N
	<b>Amount of data for Foot Angle</b>			
156	Reliability	805	2	N
157	Number of Daughters	807	6	N
158	Number of Herds	813	5	N
159	Number of Effective Daughters	818	6	N
	<b>Amount of data for Rear Set of Leg</b>			
160	Reliability	824	2	N
161	Number of Daughters	826	6	N
162	Number of Herds	832	5	N
163	Number of Effective Daughters	837	6	N
	<b>Amount of data for Rear Leg Rear View</b>			
164	Reliability	843	2	N
165	Number of Daughters	845	6	N
166	Number of Herds	851	5	N
167	Number of Effective Daughters	856	6	N
	<b>Amount of data for Udder Depth</b>			
168	Reliability	862	2	N
169	Number of Daughters	864	6	N
170	Number of Herds	870	5	N
171	Number of Effective Daughters	875	6	N
	<b>Amount of data for Fore Attachment</b>			
172	Reliability	881	2	N
173	Number of Daughters	883	6	N
174	Number of Herds	889	5	N
175	Number of Effective Daughters	894	6	N
	<b>Amount of data for Rear Attachment Height</b>			
176	Reliability	900	2	N
177	Number of Daughters	902	6	N
178	Number of Herds	908	5	N
179	Number of Effective Daughters	913	6	N
	<b>Amount of data for Rear Attachment Width</b>			
180	Reliability	919	2	N
181	Number of Daughters	921	6	N
182	Number of Herds	927	5	N
183	Number of Effective Daughters	932	6	N
	<b>Amount of data for Centre Ligament</b>			
184	Reliability	938	2	N
185	Number of Daughters	940	6	N
186	Number of Herds	946	5	N
187	Number of Effective Daughters	951	6	N
	<b>Amount of data for Teat Placement Fore</b>			
188	Reliability	957	2	N
189	Number of Daughters	959	6	N
190	Number of Herds	965	5	N
191	Number of Effective Daughters	970	6	N
	<b>Amount of data for Teat Length</b>			

192	Reliability	976	2	N
193	Number of Daughters	978	6	N
194	Number of Herds	984	5	N
195	Number of Effective Daughters	989	6	N

**Amount of data for Loin Strength**

196	Reliability	995	2	N
197	Number of Daughters	997	6	N
198	Number of Herds	1003	5	N
199	Number of Effective Daughters	1008	6	N

**Amount of data for Front End Height**

200	Reliability	1014	2	N
201	Number of Daughters	1016	6	N
202	Number of Herds	1022	5	N
203	Number of Effective Daughters	1027	6	N

**Amount of data for Teat Placement Rear**

204	Reliability	1033	2	N
205	Number of Daughters	1035	6	N
206	Number of Herds	1041	5	N
207	Number of Effective Daughters	1046	6	N

**Amount of data for Condition Score**

208	Reliability	1052	2	N
209	Number of Daughters	1054	6	N
210	Number of Herds	1060	5	N
211	Number of Effective Daughters	1065	6	N

**International Daughter Numbers for Conformation Traits**

212	Number of Countries With Daughters	1071	2	N	
213	Country With Most Daughters	1073	3	A	see note 2 for list of country codes
214	Number of Daughters in This Country	1076	6	N	
215	Country With Second Most Daughters	1082	3	A	see note 2 for list of country codes
216	Number of Daughters in This Country	1085	6	N	
217	Country With Third Most Daughters	1091	3	A	see note 2 for list of country codes
218	Number of Daughters in This Country	1094	6	N	
219	Country With Fourth Most Daughters	1100	3	A	see note 2 for list of country codes
220	Number of Daughters in This Country	1103	6	N	
221	Country With Fifth Most Daughters	1109	3	A	see note 2 for list of country codes
222	Number of Daughters in This Country	1112	6	N	

**ABV Analysis Details for Conformation Traits**

223	Breed of ABV Analysis	1118	1	A	single character breed code - see Note 1
224	Date of ABV Analysis	1119	8	N	yyyymmdd
225	Source of ABV Analysis	1127	1	A	"A = ABV, I = ABV(i)"
226	Proof publishable	1128	1	A	"P = publishable, U = unpublishable"
227	Foreign proof contribution	1129	1		"A = Aus only, I = International only, B = both"

**ABVs for Workability Traits**

228	ABV Milking Speed	1130	3	N
229	ABV Temperament	1133	3	N
230	ABV Likability	1136	3	N

**Amount of data for Workability Traits**

231	Reliability Workability Traits	1139	2	N
232	Number of Daughters	1141	6	N
233	Number of Herds	1147	5	N
234	Number of Effective Daughters	1152	6	N

**International Daughter Numbers for Workability Traits**

235	Number of Countries With Daughters	1158	2	N	
236	Country With Most Daughters	1160	3	A	see note 2 for list of country codes
237	Number of Daughters in This Country	1163	6	N	
238	Country With Second Most Daughters	1169	3	A	see note 2 for list of country codes
239	Number of Daughters in This Country	1172	6	N	
240	Country With Third Most Daughters	1178	3	A	see note 2 for list of country codes

241	Number of Daughters in This Country	1181	6	N	
242	Country With Fourth Most Daughters	1187	3	A	see note 2 for list of country codes
243	Number of Daughters in This Country	1190	6	N	
244	Country With Fifth Most Daughters	1196	3	A	see note 2 for list of country codes
245	Number of Daughters in This Country	1199	6	N	
<b>ABV Analysis Details for Workability Traits</b>					
246	Breed of ABV Analysis	1205	1	A	single character breed code - see Note 1
247	Date of ABV Analysis	1206	8	N	yyyymmdd
248	Source of ABV Analysis	1214	1	A	"A = ABV, I = ABV(i)"
249	Proof publishable	1215	1	A	"P = publishable, U = unpublishable"
250	Foreign proof contribution	1216	1	A	"A = Aus only, I = International only, B = both"
<b>ABV and Reliability for Survival</b>					
251	Survival Solution	1217	3	N	
252	Reliability Survival Solution	1220	2	N	
253	ABV Survival	1222	3	N	
254	Reliability Survival	1225	2	N	
255	Number of Daughters	1227	6	N	
256	Number of Herds	1233	5	N	
257	Number of Effective Daughters	1238	6	N	
<b>International Daughter Numbers for Survival</b>					
258	Number of Countries With Daughters	1244	2	N	
259	Country With Most Daughters	1246	3	A	see note 2 for list of country codes
260	Number of Daughters in This Country	1249	6	N	
261	Country With Second Most Daughters	1255	3	A	see note 2 for list of country codes
262	Number of Daughters in This Country	1258	6	N	
263	Country With Third Most Daughters	1264	3	A	see note 2 for list of country codes
264	Number of Daughters in This Country	1267	6	N	
265	Country With Fourth Most Daughters	1273	3	A	see note 2 for list of country codes
266	Number of Daughters in This Country	1276	6	N	
267	Country With Fifth Most Daughters	1282	3	A	see note 2 for list of country codes
268	Number of Daughters in This Country	1285	6	N	
<b>ABV Analysis Details for Survival</b>					
269	Breed of ABV Analysis	1291	1	A	single character breed code - see Note 1
270	Date of ABV Analysis	1292	8	N	yyyymmdd
271	Source of ABV Analysis	1300	1	A	"A = ABV, I = ABV(i)"
272	Proof publishable	1301	1	A	"P = publishable, U = unpublishable"
273	Foreign proof contribution	1302	1	A	"A = Aus only, I = International only, B = both"
<b>ABV for Calving Ease</b>					
274	ABV Calving Ease	1303	3	N	
<b>Amount of data for Calving Ease</b>					
275	Reliability Calving Ease	1306	2	N	
276	Number of Calvings	1308	6	N	
277	Number of Herds	1314	5	N	
278	Number of Effective calvings	1319	6	N	
<b>International Daughter Numbers for Calving Ease</b>					
279	Number of Countries With Daughters	1325	2	N	
280	Country With Most Daughters	1327	3	A	see note 2 for list of country codes
281	Number of Daughters in This Country	1330	6	N	
282	Country With Second Most Daughters	1336	3	A	see note 2 for list of country codes
283	Number of Daughters in This Country	1339	6	N	
284	Country With Third Most Daughters	1345	3	A	see note 2 for list of country codes
285	Number of Daughters in This Country	1348	6	N	
286	Country With Fourth Most Daughters	1354	3	A	see note 2 for list of country codes
287	Number of Daughters in This Country	1357	6	N	
288	Country With Fifth Most Daughters	1363	3	A	see note 2 for list of country codes
289	Number of Daughters in This Country	1366	6	N	
<b>ABV Analysis Details for Calving Ease</b>					
290	Breed of ABV Analysis	1372	1	A	single character breed code - see Note 1
291	Date of ABV Analysis	1373	8	N	yyyymmdd



292	Source of ABV Analysis	1381	1	A	"A = ABV, I = ABV(i)"
293	Proof publishable	1382	1	A	"P = publishable, U = unpublishable"
294	Foreign proof contribution	1383	1	A	"A = Aus only, I = International only, B = both"
<b>ABV for Somatic Cell Count</b>					
295	ABV Somatic Cell Count	1384	3	N	
<b>Amount of data for Somatic Cell Count</b>					
296	Reliability Somatic Cell Count	1387	2	N	
297	Number of Daughters	1389	6	N	
298	Number of Herds	1395	5	N	
299	Number of Effective Daughters	1400	6	N	
<b>International Daughter Numbers for Somatic Cell Count</b>					
300	Number of Countries With Daughters	1406	2	N	
301	Country With Most Daughters	1408	3	A	see note 2 for list of country codes
302	Number of Daughters in This Country	1411	6	N	
303	Country With Second Most Daughters	1417	3	A	see note 2 for list of country codes
304	Number of Daughters in This Country	1420	6	N	
305	Country With Third Most Daughters	1426	3	A	see note 2 for list of country codes
306	Number of Daughters in This Country	1429	6	N	
307	Country With Fourth Most Daughters	1435	3	A	see note 2 for list of country codes
308	Number of Daughters in This Country	1438	6	N	
309	Country With Fifth Most Daughters	1444	3	A	see note 2 for list of country codes
310	Number of Daughters in This Country	1447	6	N	
<b>ABV Analysis Details for Somatic Cell Count</b>					
311	Breed of ABV Analysis	1453	1	A	single character breed code - see Note 1
312	Date of ABV Analysis	1454	8	N	yyyymmdd
313	Source of ABV Analysis	1462	1	A	"A = ABV, I = ABV(i)"
314	Proof publishable	1463	1	A	"P = publishable, U = unpublishable"
315	Foreign proof contribution	1464	1	A	"A = Aus only, I = International only, B = both"
<b>ABV for Cow Fertility</b>					
316	ABV Cow Fertility	1465	3	N	Provisional
<b>Amount of data for Cow Fertility</b>					
317	Reliability Cow Fertility	1468	2	N	Provisional
318	Number of Daughters	1470	6	N	
319	Number of Herds	1476	5	N	
320	Number of Effective Daughters	1481	6	N	
<b>International Daughter Numbers for Cow Fertility</b>					
321	Number of Countries With Daughters	1487	2	N	
322	Country With Most Daughters	1489	3	A	see note 2 for list of country codes
323	Number of Daughters in This Country	1492	6	N	
324	Country With Second Most Daughters	1498	3	A	see note 2 for list of country codes
325	Number of Daughters in This Country	1501	6	N	
326	Country With Third Most Daughters	1507	3	A	see note 2 for list of country codes
327	Number of Daughters in This Country	1510	6	N	
328	Country With Fourth Most Daughters	1516	3	A	see note 2 for list of country codes
329	Number of Daughters in This Country	1519	6	N	
330	Country With Fifth Most Daughters	1525	3	A	see note 2 for list of country codes
331	Number of Daughters in This Country	1528	6	N	
<b>ABV Analysis Details for Cow Fertility</b>					
332	Breed of ABV Analysis	1534	1	A	single character breed code - see Note 1
333	Date of ABV Analysis	1535	8	N	yyyymmdd
334	Source of ABV Analysis	1543	1	A	"A = ABV, I = ABV(i)"
335	Proof publishable	1544	1	A	"P = publishable, U = unpublishable"
336	Foreign proof contribution	1545	1	A	"A = Aus only, I = International only, B = both"
<b>ABV and Reliability for Liveweight</b>					
337	ABV Liveweight	1546	3	N	
338	Reliability Liveweight	1549	2	N	
<b>ABV Analysis Details for Liveweight</b>					
339	Breed of ABV Analysis	1551	1	A	single character breed code - see Note 1
340	Date of ABV Analysis	1552	8	N	yyyymmdd

341	Source of ABV Analysis	1560	1	A	"A = ABV, I = ABV(i)"
342	Proof publishable	1561	1	A	"P = publishable, U = unpublishable",
343	Foreign proof contribution	1562	1	A	"A = Aus only, I = International only, B = both"
	<b>Genomic Evaluation</b>				
344	Genomics Evaluation	1563	1	A	g=genomics included, blank otherwise

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RECORD LENGTH = 1563 bytes

Type of Proof

- 00 unknown
- 11 based on first crop sampling daughters
- 12 based on first and second crop daughters
- 21 based on imported semen of proven bull (second crop daughters only)

Assumed sort order with all fields in ascending order: Fields 1, 2, 3