

**Historical Control Data from Prenatal Developmental Toxicity Studies  
performed during 2002 to 2006  
in HsdRccHanTM: WIST, Wistar Hannover Rats**

**Compiled of Prenatal Developmental Toxicity Studies performed at RCC Ltd. Itingen/ Switzerland**

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**Table 1: Study - Identification**

Study-ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RCC-Number	8E+05	8E+05	8E+05	8E+05	8E+05	848783	9E+05	8E+05	9E+05	9E+05	851841	9E+05	A16762	9E+05	*
Performance	Oct / Nov 2002	Oct / Nov 2002	Nov / Dec 2002	Oct / Dec 2002	Sep / Dec 2003	May / Jun 03	Nov / Dec 2003	Dec 03 / Jan 04	Mar / Apr 04	Apr / May 2004	Apr / May 2004	May / Jun 2004	Sep / Oct 2005	Feb / Mar 2005	0

Study-ID	16	17	18	19	20	21	22	23	24
RCC-Number	9E+05	9E+05	9E+05	9E+05	9E+05	A16481	9E+05	9E+05	9E+05
Performance	Aug / Sep 2004	Sep / Oct 2004	Oct / Nov 2004	Jan / Feb 2005	Apr / May 2005	Jun / Jul 2005	Apr / May 2005	Oct / Nov 2004	Feb / Mar 2005

Study-ID	25	26	27	28	29	30	31	32	33	34	35	36
RCC-Number	9E+05	9E+05	9E+05	9E+05	9E+05	856130	9E+05	8E+05	9E+05	9E+05	A43165	*
Performance	Feb 04 / Mar 04	Apr 04 / May 04	Jan 04 / Feb 04	Jul 04 / Aug 04	Jul 04 / Aug 04	Oct 04 / Nov 04	Mar 05 / Apr 05	Apr 02 / May 02	Aug 05 / Sep 05	Jun 04 / Jul 04	May 06 / Jun 06	0

\* planned study not performed

**Table 2: Reproduction Data**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Number Of Females Mated	24	24	24	25	22	22	22	22	22	22	22	22	22	22	0	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	24	22	22	22	0	
Pregnant	24	24	24	25	22	21	22	19	21	20	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0	
Corpora Lutea	337	323	330	339	314	301	301	269	288	270	304	280	313	310	0	307	325	327	303	302	300	264	317	286	325	297	313	320	333	290	288	341	292	301	304	0	
Mean	14	14	14	14	14	14	14	14	14	14	14	14	14.2	14	0	14	15	16	14.4	14	14	13	14	14	14.8	14	15	15	15	13.8	13	14	13	14.3	15	0	
St. Dev.	1.3	1.7	2	1.8	2.1	1.6	2.2	2	2.5	1.7	2.3	2.6	1.5	2.1	0	1.8	1.6	1.7	2.5	1.8	2	1.7	2.7	1.6	1.7	1.7	1.6	2.4	1.6	2.2	2	2.2	3.1	2.1	1.5	0	
Pre-Implantation Loss	30	14	18	20	12	21	21	21	30	13	19	33	11	18	0	25	22	26	25	16	16	14	27	24	10	21	16	26	22	25	17	24	12	22	22	0	
% Of Corp. Lutea	8.9	4.3	5.5	5.9	3.8	7	7	7.8	10	4.8	6.3	12	3.5	5.8	0	8.1	6.8	8	8.3	5.3	5.3	5.3	8.5	8.4	3.1	7.1	5.1	8.1	6.6	8.6	5.9	7	4.1	7.3	7.2	0	
Mean	1.3	0.6	0.8	0.8	0.5	1	1	1.1	1.4	0.7	0.9	1.7	0.5	0.8	0	1.1	1	1.2	1.2	0.8	0.7	0.7	1.2	1.1	0.5	1	0.8	1.2	1	1.2	0.8	1	0.5	1	1	0	
St. Dev.	1.5	0.8	2.1	1	1	0.9	1	1.2	2	1.2	1.2	1.8	1.1	1.1	0	1.1	1.1	1.4	1.6	0.7	1.4	1.2	1.2	1.1	1	1.2	1.2	1.3	0.9	1.3	1	1.8	1.2	1.1	1	0	
Number Of Dams Affected	14	10	7	13	7	14	14	11	12	10	11	12	6	12	0	15	13	14	14	13	8	8	17	13	5	13	10	14	15	15	11	9	6	14	13	0	
Implantation Sites	307	309	312	319	302	280	280	248	258	257	285	247	302	292	0	282	303	301	278	286	284	250	290	262	315	276	297	294	311	265	271	317	280	279	282	0	
% Of Corp. Lutea	91	96	95	94	96	92	93	92	90	95	94	88	96.5	94	0	92	93	92	91.7	95	95	95	92	92	96.9	92	95	92	93	91.4	94	93	96	92.7	93	0	
Mean	13	13	13	13	14	13	13	13	12	14	13	12	13.7	13	0	13	14	14	13.2	14	13	12	13	13	14.3	13	14	13	14	12.6	12	13	13	13.3	13	0	
St. Dev.	2.1	1.7	2.6	1.7	2.4	1.5	2.4	2.2	2.8	1.6	2.1	3.2	2	2.4	0	1.5	2	1.7	2.9	1.5	2.9	2.4	2.4	1.7	1.9	2.2	1.6	2.9	1.5	2.1	2.2	2.1	3.9	2.1	1.8	0	
Post-Implantation Loss	18	19	20	22	13	12	17	12	31	16	14	19	18	10	0	12	37	19	19	16	18	13	19	3	15	22	24	16	25	9	9	22	4	18	8	0	
% Of Impl. Sites	5.9	6.1	6.4	6.9	4.3	4.3	6.1	4.8	12	6.2	4.9	7.7	6	3.4	0	4.3	12	6.3	6.8	5.6	6.3	5.2	6.6	1.1	4.8	8	8.1	5.4	8	3.4	3.3	6.9	1.4	6.5	2.8	0	
Mean	0.8	0.8	0.8	0.9	0.6	0.6	0.8	0.6	1.5	0.8	0.6	1	0.8	0.5	0	0.5	1.7	0.9	0.9	0.8	0.8	0.6	0.9	0.1	0.7	1	1.1	0.7	1.1	0.4	0.4	0.9	0.2	0.9	0.4	0	
St. Dev.	1	1	1.2	0.9	0.7	0.8	1	0.8	1.8	1	0.8	1.5	1	0.8	0	0.7	1.8	1.2	1.5	1.3	0.9	0.8	1.2	0.4	0.8	1.7	1.9	0.7	2.4	0.9	0.7	1.1	0.4	1	0.7	0	
Number Of Dams Affected	12	12	10	16	11	9	10	9	14	10	10	10	12	7	0	10	18	10	9	10	14	10	12	3	10	10	10	13	11	5	6	13	4	11	6	0	
Implantation Site Scars	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Embryonic / Fetal Deaths : Total	18	19	20	22	13	12	17	12	31	16	14	19	18	10	0	12	37	19	19	16	18	13	19	3	15	22	24	16	25	9	9	22	4	18	8	0	
Embryonic / Fetal Resorptions	15	14	17	20	13	11	15	12	20	13	14	16	17	10	0	12	34	14	16	15	16	9	16	3	15	18	21	13	23	9	8	21	4	16	6	0	
% Of Impl. Sites	4.9	4.5	5.4	6.3	4.3	3.9	5.4	4.8	7.8	5.1	4.9	6.5	5.6	3.4	0	4.3	11	4.7	5.8	5.2	5.6	3.6	5.5	1.1	4.8	6.5	7.1	4.4	7.4	3.4	3	6.6	1.4	5.7	2.1	0	
Mean	0.6	0.6	0.7	0.8	0.6	0.5	0.7	0.6	1	0.7	0.6	0.8	0.8	0.5	0	0.5	1.5	0.7	0.8	0.7	0.7	0.4	0.7	0.1	0.7	0.9	1	0.6	1	0.4	0.4	0.9	0.2	0.8	0.3	0	
St. Dev.	0.9	0.7	1.2	0.8	0.7	0.8	0.9	0.8	1.3	1	0.8	1.2	1	0.8	0	0.7	1.6	1.1	1.3	1.1	0.9	0.7	0.8	0.4	0.8	1.5	1.6	0.7	2.4	0.9	0.7	1	0.4	0.9	0.6	0	
Number Of Dams Affected	12	11	9	15	11	8	10	9	12	8	10	9	11	7	0	10	17	7	8	10	12	7	12	3	10	8	9	10	10	5	6	13	4	10	5	0	
Fetal Resorptions	3	5	3	2	0	1	2	0	11	3	0	3	1	0	0	0	3	5	3	1	2	4	3	0	0	4	3	3	2	0	1	1	0	2	2	0	
% Of Impl. Sites	1	1.6	1	0.6	0	0.4	0.7	0	4.3	1.2	0	1.2	0.3	0	0	0	1	1.7	1.1	0.3	0.7	1.6	1	0	0	1.4	1	1	0.6	0	0.4	0.3	0	0.7	0.7	0	
Mean	0.1	0.2	0.1	0.1	0	0	0.1	0	0.5	0.2	0	0.2	0	0	0	0	0.1	0.2	0.1	0	0.1	0.2	0.1	0	0	0.2	0.1	0.1	0.1	0	0	0	0	0.1	0.1	0	
St. Dev.	0.3	0.5	0.4	0.3	0	0.2	0.3	0	1.2	0.5	0	0.4	0.2	0	0	0	0.4	0.7	0.4	0.2	0.3	0.4	0.6	0	0	0.5	0.5	0.4	0.3	0	0.2	0.2	0	0.1	0.4	0	
Number Of Dams Affected	3	4	2	2	0	1	2	0	5	2	0	3	1	0	0	0	3	3	3	1	2	4	1	0	0	3	2	3	2	0	1	1	0	2	1	0	

**Table 2: Reproduction Data (Cont'd)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
<b>Fetuses</b>																																						
<b>Total Fetuses</b>	289	290	292	297	289	268	263	236	227	241	271	228	284	282	0	270	266	282	259	270	266	237	271	259	300	254	273	278	286	256	262	295	276	261	274	0		
% Of Impl. Sites	94	94	94	93	96	96	94	95	88	94	95	92	94	97	0	96	88	94	93.2	94	94	95	93	99	95.2	92	92	95	92	96.6	97	93	99	93.5	97	0		
Mean	12	12	12	12	13	13	12	12	11	13	12	11	12.9	13	0	12	12	13	12.3	13	12	11	12	12	13.6	12	13	13	13	12.2	12	12	13	12.4	13	0		
St. Dev.	2.5	1.6	3.1	2	2.3	1.2	2.3	2.4	3.4	1.8	2.1	3.1	2	2.5	0	1.6	2.3	1.9	3.1	2	2.8	2.5	2.4	1.7	2.2	2.8	2.4	3.2	3.1	1.9	2.2	2.1	3.8	1.9	2	0		
<b>Live Fetuses</b>	289	290	292	297	289	268	263	236	227	241	271	228	284	282	0	270	266	282	259	270	266	237	271	259	300	254	273	278	286	256	262	295	276	261	274	0		
<b>Dead Fetuses</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Malformed Fetuses</b>	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	0	0
% Of Fetuses	0	0	0	0	0	0	0	0	0.4	0.4	0	0	0	0	0	0	0	0	0.4	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0	0	0.8	0	0	
Mean	0	0	0	0	0	0	0	0	0	0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.1	0	0	
St. Dev.	0	0	0	0	0	0	0	0	0.2	0.2	0	0	0	0	0	0	0	0	0.2	0	0	0	0	0	0.2	0	0	0	0	0	0	0	0	0	0.3	0	0	
Number Of Dams Affected	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	0	
<b>Malformed Live Fetuses At External Ex.</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Malformed Dead Fetuses At External Ex.</b>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>Sex Of Fetuses</b>																																						
<b>Total Males</b>	132	143	149	154	133	138	128	112	114	119	149	108	159	140	0	136	139	132	127	139	125	114	123	122	122	106	118	132	131	125	136	151	123	144	141	0		
% Of Fetuses	46	49	51	52	46	52	49	48	50	49	55	47	56	50	0	50	52	47	49	52	47	48	45	47	40.7	42	43	48	46	48.8	52	51	45	55.2	52	0		
Mean	5.5	6	6.2	6.2	6	6.6	5.8	5.9	5.4	6.3	6.8	5.4	7.2	6.4	0	6.2	6.3	6.3	6	6.6	5.7	5.4	5.6	5.8	5.5	5	5.6	6	6	6	6.2	6.3	5.6	6.9	6.7	0		
St. Dev.	2.3	1.7	2.1	1.9	1.9	1.7	2.3	2	2	2.3	1.5	2.1	1.7	1.8	0	2.2	2.1	2	2.5	1.9	2.3	2.1	2.4	1.9	2.3	2	2.2	2	2.1	2.2	1.5	2.5	2.5	2.1	2.6	0		
<b>Total Females</b>	157	147	143	143	156	130	135	124	113	122	122	120	125	142	0	134	127	150	132	131	141	123	148	137	178	148	155	146	155	130	126	144	153	117	133	0		
% Of Fetuses	54	51	49	48	54	49	51	53	50	51	45	53	44	50	0	50	48	53	51	49	53	52	55	53	59.3	58	57	53	54	50.8	48	49	55	44.8	49	0		
Mean	6.5	6.1	6	5.7	7.1	6.2	6.1	6.5	5.4	6.4	5.5	6	5.7	6.5	0	6.1	5.8	7.1	6.3	6.2	6.4	5.9	6.7	6.5	8.1	7	7.4	6.6	7	6.2	5.7	6	7	5.6	6.3	0		
St. Dev.	2.1	1.8	2.3	1.8	2.4	1.6	2.1	2.7	2.5	2.1	2	2.4	2	2.1	0	1.6	2	2.4	2.7	2	2	2.4	1.7	2	2.2	2.2	2.2	2.2	2.5	2.4	2.1	2.1	1.6	2.3	2	2.5	0	

**Table 3: Weights Of Live Fetuses**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
<b>Weights Of Live Fetuses</b>																																					
<b>(Litter Basis)</b>																																					
<b>Males And Females</b>																																					
N (Litters)	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0	
Mean	4.9	4.8	4.7	4.7	4.8	4.8	4.8	4.7	4.6	4.7	4.8	4.8	4.8	4.9	0	4.7	4.8	4.7	4.8	4.8	4.8	4.8	4.8	4.7	4.8	4.8	4.7	4.9	4.9	4.8	4.8	4.7	4.9	4.9	4.8	0	
St. Dev.	0.3	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.2	0.2	0.3	0.3	0.2	0.4	0.2	0.2	0	
<b>Males</b>																																					
N (Litters)	24	24	24	25	22	21	22	19	20	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	21	21	0	
Mean	5	5	4.8	4.9	4.9	4.9	4.9	4.8	4.7	4.8	4.9	4.9	4.9	5	0	4.9	4.9	4.8	4.8	4.8	4.9	4.9	4.9	4.8	5	4.9	4.9	4.9	5	5	4.9	4.8	5	5	4.9	0	
St. Dev.	0.3	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0	0.2	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.3	0.2	0.4	0.3	0.3	0	
<b>Females</b>																																					
N (Litters)	24	24	24	25	22	21	22	19	20	19	22	19	22	22	0	22	22	21	21	21	22	21	22	20	22	21	21	22	22	21	22	24	21	21	21	0	
Mean	4.8	4.7	4.6	4.6	4.7	4.7	4.7	4.5	4.5	4.6	4.7	4.7	4.7	4.7	0	4.6	4.6	4.6	4.6	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.6	4.8	4.8	4.7	4.7	4.6	4.7	4.7	4.7	0	
St. Dev.	0.3	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0	0.2	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0
<b>(Individual Basis)</b>																																					
<b>Males And Females</b>																																					
N (Fetuses)	289	290	292	297	289	268	263	236	227	241	271	228	284	282	0	270	266	282	259	270	266	237	271	259	300	254	273	278	286	256	262	295	276	261	274	0	
Mean	4.9	4.8	4.7	4.7	4.8	4.8	4.8	4.6	4.6	4.7	4.8	4.8	4.8	4.9	0	4.7	4.7	4.7	4.7	4.7	4.8	4.8	4.7	4.8	4.8	4.8	4.7	4.8	4.8	4.8	4.8	4.7	4.8	4.8	4.8	0	
St. Dev.	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0	
<b>Males</b>																																					
N (Fetuses)	132	143	149	154	133	138	128	112	114	119	149	108	159	140	0	136	139	132	127	139	125	114	123	122	122	106	118	132	131	125	136	151	123	144	141	0	
Mean	5	4.9	4.8	4.9	4.9	4.9	4.9	4.8	4.7	4.8	4.9	4.9	4.9	5	0	4.9	4.8	4.8	4.8	4.8	4.9	4.9	4.9	4.8	4.9	4.9	4.9	4.9	5	4.9	4.9	4.8	5	4.9	4.9	0	
St. Dev.	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0	0.3	0.4	0.4	0.4	0.3	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0	
<b>Females</b>																																					
N (Fetuses)	157	147	143	143	156	130	135	124	113	122	122	120	125	142	0	134	127	150	132	131	141	123	148	137	178	148	155	146	155	130	126	144	153	117	133	0	
Mean	4.8	4.7	4.6	4.6	4.7	4.7	4.6	4.5	4.5	4.6	4.7	4.7	4.7	4.7	0	4.6	4.6	4.6	4.7	4.6	4.7	4.7	4.7	4.7	4.7	4.6	4.6	4.7	4.7	4.7	4.6	4.7	4.7	4.7	4.7	0	
St. Dev.	0.4	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0	0.3	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0

**Table 4: Spontaneous Abnormal Findings (External)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Number Of Litters	24	24	24	25	22	21	22	22	0	22	19	21	19	22	20	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	0	21	21	0
Number Of Fetuses	289	290	292	297	289	301	284	282	0	263	236	227	241	271	228	270	266	282	259	270	266	237	290	259	300	254	273	278	286	256	262	295	0	279	274	0
Head malformed (including upper and lower jaw)	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agnathia inferior, oral opening reduced to small	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Astomia and agnathia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Agnathia inferior, cranium abnormally shaped, skull open, brain tissue protruding but covered with skin, astomia, both eyes apparently absent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Assumed hydrocephalus (finding confirmed by visceral examination)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
Craniorachischisis, excencephaly, spina bifida aperta	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

**Table 5: Abnormal Findings From Visceral Examination Of Fetuses**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Number of litters	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0		
Number of fetuses	153	151	150	155	150	141	138	124	121	125	141	117	151	146	0	141	137	148	134	141	137	123	139	135	154	131	142	147	150	132	135	151	144	142	145	0		
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Azygos vein (bilateral/right-sided)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
Brain lateral ventricles dilated (slight)	0	0	0	0	0	0	0	3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	3	0	0	0	0	0	0	0		
Brain, cerebral and midbrain region perimeningeal space increased	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Internal hydrocephali	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
Situs inversus	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0		
Cleft palate	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0		
Perimeningeal haemorrhage midbrain region	0	0	0	0	0	0	0	0	0	0	0	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Thymus cranially elongated (bi-/unilateral)	25	17	21	18	8	15	19	2	7	6	7	8	5	8	0	8	3	12	3	10	8	4	7	9	0	0	0	0	0	0	0	0	0	0	0	0		
Thymus elongated (bi-/unilateral)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	10	2	9	2	8	8	19	12	5	12	0		
Thyroid enlarged	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Localized haemorrhage	11	11	14	10	21	9	41	12	4	10	8	5	13	8	0	18	17	9	4	22	34	11	22	9	4	0	2	22	0	22	0	14	0	8	0	0		
Liver additional lobe(s) within median cleft	32	27	31	38	27	34	31	22	28	11	17	15	9	14	0	12	14	16	17	9	15	14	19	9	31	12	32	18	15	9	11	23	20	17	3	0		
Liver median cleft displaced	10	9	6	15	3	4	4	3	0	3	0	1	0	0	0	2	2	0	0	0	0	1	0	0	1	0	2	0	4	0	0	0	0	0	1	0	0	
Liver left lateral lobe additional cleft	21	5	15	13	29	41	16	18	14	9	12	15	0	0	0	12	4	7	11	9	8	12	7	0	29	9	34	5	0	12	7	5	0	4	1	0		
Liver lobe(s) abnormally shaped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liver left lateral lobe protruding beneath diaphragm (resultant compression of left lung lobe)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liver papillary/caudal process misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liver lobe(s) misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Liver left lateral lobe bipartite	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
Liver lateral lobe, haemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Liver, papillary process reduced/misshapen (twisted)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	
Liver lobes adhered	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
Urinary bladder distended	0	0	0	0	2	14	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	4	0	2	0	4	0	0	0	0	0	5	0	0	
Umbilical artery left-sided	23	16	17	19	19	0	14	10	19	29	13	16	21	23	0	18	16	14	14	16	18	19	17	10	19	11	22	16	10	15	13	27	18	12	15	0		



**Table 5: Abnormal Findings From Visceral Examination Of Fetuses**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Number of litters	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0	
Number of fetuses	153	151	150	155	150	141	138	124	121	125	141	117	151	146	0	141	137	148	134	141	137	123	139	135	154	131	142	147	150	132	135	151	144	142	145	0	
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Innominate artery elongated	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Innominate artery shortened	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
Intra - abdominal haemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Kidney misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
Left subclavian artery origin displaced (arising from descending aorta)	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lateral (right) displacement of heart and further abnormalities	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Lens, abnormal texture areas	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Head, different regions, discolored - dark area (query fixation)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heart misshapen	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heart apex divided	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Heart interventricular septal defect	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heart and major arterial trunks malrotated	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heart and right lung lobes displaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Heart atrium enlarged (bi-/unilateral)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	
Haemorrhage cerebral perimeningeal or internal haemorrhage	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0
Origin of left subclavian artery displaced (post-ductal)	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Multiple malformations	0	0	0	0	0	0	0	0	1*	1*	0	0	0	0	0	0	1*	0	1*	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0
Small additional lung lobe	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Small lung lobe irregularly in shape	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Eye, lenticular lesion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
Eye haemorrhage (unilateral)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	

**Table 5: Abnormal Findings From Visceral Examination Of Fetuses**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Number of litters	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0		
Number of fetuses	153	151	150	155	150	141	138	124	121	125	141	117	151	146	0	141	137	148	134	141	137	123	139	135	154	131	142	147	150	132	135	151	144	142	145	0		
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N		
Right lung enlarged	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Lung lobes partially fused	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Lung right caudal and accessory lung lobes partially fused	0	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0		
Palatine rugae - none present	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
Lung lobe(s) misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	
Lung lobes partially fused	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	
Lung right caudal and accessory lobes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	
Thoracic situs inversus and further abnormal findings	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Thoracic and abdominal situs inversus	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Thoracic and abdominal situs inversus with ventricular region of heart divided apex or interventricular septal defect	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tracheal cartilages disorganized	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcutaneous oedema, head	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subcutaneous haemorrhage, hind limb/tail	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	
Anophthalmia (bi-/unilateral)	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Oral passage not patent	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oesophagus right-sided	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oesophagus behind trachea	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oesophagus displaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Right subclavian artery retro-oesophageal	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Left subclavian artery origin displaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	
Olfactory lobes-ventricles dilated, uni-/bilateral	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diaphragm locally thinned	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	0	0	4	1	8	4	2	1	0	0	3	0	3	0	1	3	0	6	0	0	
Diaphragm tendinous region locally thinned (severe)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	
Diaphragmatic hernia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Absence of spleen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	

**Table 5: Abnormal Findings From Visceral Examination Of Fetuses**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
Number of litters	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	22	21	21	0	
Number of fetuses	153	151	150	155	150	141	138	124	121	125	141	117	151	146	0	141	137	148	134	141	137	123	139	135	154	131	142	147	150	132	135	151	144	142	145	0	
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	
Spleen extra tissue adhesion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Spleen displaced and misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
Subcutaneous haemorrhage (head, lower	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	7	0	0	2	0	18	0	41	0	25	0	
Testis(es) partially descended (percentage of male fetuses)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Testis(es) displacement cranial/medial (uni-/bilaterally) - (% of male fetuses)	0	0	0	0	0	0	0	0	0	0	0	0	5	6	0	7	5	9	3	5	1	3	2	7	8	6	9	2	2	3	4	1	2	3	2	0	
Artifact	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Tail hooked at distal extremity	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
Fetuses with any abnormal findings	92	70	80	86	87	77	89	68	67	63	59	58	54	58	0	68	54	58	49	58	66	60	63	52	84	48	84	60	44	58	52	69	80	52	52	0	
Litters with any abnormal findings	23	22	23	25	21	21	22	19	20	19	20	19	21	21	0	22	18	20	19	20	21	20	22	21	22	19	21	19	19	21	21	23	21	21	20	0	
Renal pelvis(es) dilated (uni-/bilaterally)	0	0	0	0	0	0	1	2	5	1	2	1	0	0	0	1	1	1	0	0	0	0	0	1	4	0	0	0	1	0	0	7	0	0	0	0	
Stomach, spleen and pancreas malrotated	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other abnormalities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	
Less common and/or more severe findings	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pancreas adhesion to lung lobe	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Fetus with other findings	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1*	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Falciform ligament of liver absent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	

**Table 6: ABNORMAL FINDINGS AND VARIATIONS FROM SKELETAL EXAMINATIONS OF FETUSES - SUMMARY**

Introduction	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of litters	22	21	21	22	22	21	22	24	21	20	21	0	24	24	24	25	22	21
Number of fetuses	146	123	131	131	136	124	126	144	132	119	132	0	136	139	142	142	139	127
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Cervical vertebral arch non-ossified	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Cervical vertebral body dumbbell-shaped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Cervical vertebral body non-ossified	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Wavy rib(s)	0	0	0	0	0	0	0	0	0	0	0	0	6	1	1	0	0	4
Rudimentary cervical rib, uni-bilateral	6	0	5	3	5	2	3	0	1	5	2	0	0	0	0	0	0	0
Ribs wavy uni-/bilateral	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Rib(s) branched	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Ribs fused	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Superior maxilla abnormally shaped	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Fontanelle increased in size	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Zygomatic arch fusion (process of maxilla to jugal), uni-/bilatera	2	1	4	2	5	14	3	0	4	3	3	0	1	1	1	5	0	0
Zygomatic arch incompletely/abnormally ossified, uni-/bilatera	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0
Zygomatic process of squamosa and/or jugal incompletely ossified, uni-/bilatera	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

**Table 6: ABNORMAL FINDINGS AND VARIATIONS FROM SKELETAL EXAMINATIONS OF FETUSES - SUMMARY**

Introduction	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of litters	22	21	21	22	22	21	22	24	21	20	21	0	24	24	24	25	22	21
Number of fetuses	146	123	131	131	136	124	126	144	132	119	132	0	136	139	142	142	139	127
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral arches)	0	0	3	0	1	3	3	2	0	0	0	0	1	0	0	2	0	5
Thoracic vertebral body(ies) dumbbell-shaped	0	0	2	0	0	0	0	0	0	0	0	0	7	4	2	3	0	1
Thoracic vertebral body(ies) bipartite ossification	0	0	0	0	1	0	1	2	0	0	0	0	1	1	0	2	0	0
Thoracic vertebral body unilaterally ossification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Lumbar scoliosis	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Lumbar vertebral body(ies) dumbbell-shaped	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Sternebra(e) abnormally shaped	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0
Sternebra(e) bipartite ossification	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0
Sternebra(e)e asymmetrically aligned	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sternebra(e) offset	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Sternebrae abnormally ossified	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Fetuses with any abnormal finding	8	2	17	5	13	19	10	11	5	8	6	0	16	9	8	12	0	9
Litters with any abnormal finding	6	2	14	4	11	11	8	8	4	7	5	0	10	8	7	11	0	5
Jugal incompletely ossified, uni-/bilateral	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Os interparietale and/or occipitale fused	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0

**Table 7: ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of litters	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
Number of fetuses	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
<b>Bones</b>																		
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral arches)	2	0	0	2	0	4	5	1	0	4	5	8	1	3	5	2	1	3
Sternebrae 3-5 abnormally shaped, 4 with bipartite ossification	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sternebrae 4 and 5 offset	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sternebra 5 bipartite	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Costal cartilages 4 and 5 offset	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Zygomatic arch fusion (process of maxilla to jugal), left	0	0	0	0	2	1	0	0	0	1	1	0	12	2	10	4	0	11
Thoracic vertebral body 12 dumbbell-shaped	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Fetuses with any abnormal finding	2	1	1	3	3	6	0	0	0	0	0	0	0	0	0	0	0	0
Litters with any abnormal finding	2	1	1	3	2	5	0	0	0	0	0	0	0	0	0	0	0	0
Mandibles and lower incisors fused	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Zygomatic arch fusion	0	0	0	0	0	13	9	0	0	0	0	0	0	0	0	0	0	0
Cervical vertebral fused to exoccipital	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0
Cervical rib rudimentary	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Vertebral arch of cervical vertebra 1 absent	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0

**Table 7: ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of litters	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
Number of fetuses	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
<b>Bones</b>																		
Thoracic vertebral body dumbbell-shaped	0	0	0	0	0	0	2	0	0	2	1	0	1	1	1	0	1	0
Thoracic vertebral body bipartite ossification	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0
Thoracic vertebral arch 13 reduced in size	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Thoracic vertebral arch 13 fused with lumbar vertebral arch 1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Lumbar vertebral body 1 absent	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Lumbar vertebral body dumbbell-shaped	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Lumbar vertebral body bipartite ossification	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Sternebrae fused	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Sternebra bipartite ossification	0	0	0	0	0	0	0	0	0	0	0	0	3	2	0	0	0	0
Sternebra offset	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	0	0
Cervical rib rudimentary	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0
Ribs branched	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Ribs short	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Ribs wavy	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Scapula misshapen (bent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Humerus misshapen (bent)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0

**Table 7: ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY (CONT D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Number of litters	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
Number of fetuses	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124
Incidences of fetuses with	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
<b>Cartilage</b>																		
Additional ventral plate	0	0	0	0	0	0	1	3	0	0	1	0	0	0	0	3	0	0
Scapula cartilage bent	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Cartilaginous cervical rib	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Cartilaginous cervical centra split	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Cartilaginous cervical centra fused	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0
Cartilaginous thoracic centrum split / misshapen / absent	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0
Thoracic vertebral arch/body split	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
Cartilaginous vertebral body split / dumbbell-shaped	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0
Coastal cartilage fused	0	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0
Coastal cartilage short	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0
Coastal cartilage interrupted	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Coastal cartilage offset	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0
Costal cartilages branched	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Cartilage between sternbrae split	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0
Lumbar vertebral body dumbbell-shaped	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
Fetuses with multiple findings	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
Fetuses with any abnormal finding	0	0	0	0	0	0	21	14	0	6	9	14	16	12	15	10	2	14
Litters with any abnormal finding	0	0	0	0	0	0	14	9	0	4	6	8	11	10	7	7	2	10

**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Fetuses																																					
ABNORMAL FINDINGS*	16	9	8	12	0	9	2	1	1	2	3	6	20	12	0	6	8	13	16	10	15	7	2	14	8	2	17	5	13	19	17	11	5	8	6	0	
<b>CRANIUM</b>																																					
INCOMPLETELY OSSIFIED	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- os occipitale	8	3	3	2	0	5	2	0	0	0	0	0	4	3	0	0	0	0	0	1	1	3	0	0	4	0	0	3	3	1	3	3	3	3	2	0	
- os parietale, bilateral	12	4	5	2	0	6	3	0	1	2	1	1	10	1	0	2	0	1	1	32	1	4	2	1	4	3	1	4	9	0	3	4	2	4	6	0	
- os interparietale	28	21	25	13	0	30	7	5	4	14	7	2	0	0	0	1	4	4	2	6	7	8	4	3	17	7	18	12	28	4	7	23	13	9	15	0	
- os parietale, left	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	
- os parietale, right	2	1	0	1	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	2	0	1	0	1	0	1	5	0	0	1	0	
- os frontale, left	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- os frontale, right	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- os hyoideum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	4	1	1	1	0	0	3	0	
- zygomatic process of maxilla, left	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	3	2	0	1	0	0	0	0	0	
- zygomatic process of maxilla, right	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	3	1	0	1	0	2	0	0	
- jugal, left	0	0	0	0	0	8	0	0	0	2	0	0	2	2	0	1	2	0	1	0	0	2	3	0	4	1	1	3	5	1	2	0	0	1	3	0	
- jugal, right	0	0	0	0	0	10	1	0	0	1	0	1	0	1	0	1	2	0	2	0	3	6	2	1	1	1	1	3	5	1	2	0	0	1	6	0	
- zygomatic process of squamosal, left	0	0	0	0	0	2	0	1	0	2	1	0	1	2	0	0	0	0	1	0	1	2	3	0	0	0	1	3	4	0	2	0	0	1	1	0	
- zygomatic process of squamosal, right	0	0	0	0	0	4	1	1	0	2	1	1	0	0	0	0	0	0	2	0	2	5	2	1	0	0	1	3	5	0	2	0	0	1	2	0	
<b>CERVICAL VERTEBRAE</b>																																					
NON-OSSIFIED	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- cervical vertebral body 1	0	0	5	4	5	5	2	3	0	1	0	6	2	3	0	4	8	2	5	15	7	1	12	1	1	0	0	0	0	0	0	0	0	0	0	0	
- cervical vertebral body 2	0	0	7	19	0	22	5	9	0	2	1	15	6	7	0	7	13	6	14	19	1	8	18	5	0	0	0	0	0	0	0	0	0	0	0	0	0
- cervical vertebral body 3	0	0	1	1	0	1	2	1	0	1	0	1	3	2	0	2	3	1	5	9	4	3	5	1	6	7	11	2	2	4	15	2	6	0	3	0	
- cervical vertebral body 4	0	0	1	1	0	0	0	1	0	0	0	1	2	2	0	1	3	0	1	6	4	0	1	0	15	11	33	20	13	2	22	20	9	8	3	0	
- cervical vertebral body 5	0	0	1	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	5	1	0	1	1	8	3	3	3	0	0	5	2	6	0	2	0	0	
- cervical vertebral body 6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	0	0	0	3	0	1	2	0	0	4	1	2	0	2	0	0	
- cervical vertebral body 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	1	0	2	1	2	0	1	0	0	
<b>DUMBBELL SHAPE</b>																																					
- cervical vertebral body 1	0	0	0	23	0	3	2	1	0	0	0	2	0	3	0	6	0	5	4	0	4	4	0	6	6	7	7	1	4	5	2	0	5	0	0		
- cervical vertebral body 2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

\* DESCRIPTIONS IN THE TABLES OF SPONTANEOUS ABNORMAL FINDINGS



**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0		
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0		
Fetuses																																						
<b>CERVICAL VERTEBRAE</b>																																						
BIPARTITE																																						
- cervical vertebral body 1	0	0	0	1	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	5	0	2	0	1	0	0	0	0	0	0	0		
- cervical vertebral body 2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
ADDITIONAL OSSIFICATION																																						
- cervical vertebral arch 7, left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0		
- cervical vertebral arch 7, right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	0		
<b>THORACIC VERTEBRAE</b>																																						
DUMBBELL SHAPE																																						
- thoracic vertebral body 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
- thoracic vertebral body 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0		
<b>LUMBAR VERTEBRAE</b>																																						
DUMBBELL SHAPE																																						
- lumbar vertebral body 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
<b>STERNUM</b>																																						
INCOMPLETELY OSSIFIED																																						
- sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
- sternebra 2	1	2	2	1	2	1	0	0	0	0	0	0	0	0	0	1	0	1	2	2	0	0	0	0	3	2	1	3	1	1	1	1	2	1	0	0	0	
- sternebra 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	2	0	0	0	0	0	0	1	0	
- sternebra 4	1	0	0	0	2	0	0	1	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	4	3	0	2	2	4	0	1	0	0	1	0	1	0	
- sternebra 5	61	53	39	70	22	38	11	11	2	5	3	4	5	3	0	6	2	3	2	4	3	5	9	1	36	22	8	26	10	17	9	57	11	9	11	0		
- sternebra 6	3	0	4	1	1	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	1	0	2	2	4	4	0	6	2	1	1	0	0		
NON-OSSIFIED																																						
- sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- sternebra 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- sternebra 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- sternebra 5	0	0	0	1	0	1	0	0	0	2	0	0	3	0	0	0	0	0	0	4	0	0	0	1	0	0	0	0	0	2	1	1	1	0	1	0	0	
- sternebra 6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ABNORMALLY OSSIFIED																																						
- sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
- sternebra 3	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0		
- sternebra 4	1	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	2	0	0	16	0	1	0	0		
- sternebra 5	5	1	1	6	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	3	0	0	19	0	0	0	0		
- sternebra 6	2	0	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0		

**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
<b>NUMBER OF LITTERS / FETUSES FOR</b>	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0		
<b>SKELETAL EXAMINATION</b>	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0		
<b>Fetuses</b>																																						
<b>RIB(S) LEFT</b>																																						
SUPERNUMERARY RIB(S),																																						
- one	1	4	3	2	1	3	2	0	1	1	0	1	1	0	0	4	2	0	1	1	2	0	0	2	3	1	2	1	4	2	2	7	2	0	0	0		
RUDIMENTARY SUPERNUMERARY RIB(S),																																						
- one	42	55	46	47	20	41	51	31	14	36	41	36	44	36	0	39	57	38	36	46	39	35	30	46	30	28	51	45	50	56	38	46	35	33	47	0		
<b>RIB(S) RIGHT</b>																																						
SUPERNUMERARY RIB(S),																																						
- one	2	1	1	1	1	3	1	0	0	2	1	0	2	1	0	3	2	0	0	0	2	1	0	3	2	0	2	1	3	2	4	3	1	0	0	0		
RUDIMENTARY SUPERNUMERARY RIB(S),																																						
- one	42	53	47	40	22	34	47	24	8	27	44	30	35	30	0	37	43	37	30	42	35	34	26	38	24	29	46	40	48	45	31	43	35	31	43	0		
<b>LEFT FORELIMB</b>																																						
NON- OSSIFIED																																						
- digit 1 distal phalanx	0	0	11	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	15	0	1	0	0	12	3	0	5	0	0	4	0	6	9	16	0		
- metacarpalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
- digit 2 proximal phalanx	34	28	57	34	9	6	16	12	20	16	13	7	5	9	0	13	8	16	12	57	11	18	9	16	40	18	28	23	16	7	18	29	26	15	31	0		
- digit 2 distal phalanx	0	0	11	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	10	6	0	1	0	0	3	0	6	6	7	0	0		
- metacarpalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 3 proximal phalanx	0	0	9	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	9	0	2	1	0	2	2	0	0	0	0	0	0	2	3	0	2	0	
- digit 3 distal phalanx	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	1	1	1	0		
- metacarpalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 4 proximal phalanx	3	4	14	8	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	11	0	2	1	0	6	3	0	1	0	0	1	4	6	1	4	0		
- digit 4 distal phalanx	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	2	2	3	0		
- metacarpalia 5	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0		
- digit 5 proximal phalanx	63	65	94	78	47	25	42	41	41	50	33	25	35	32	0	51	32	42	41	100	43	49	45	34	62	45	58	42	38	27	36	67	64	27	65	0		
- digit 5 distal phalanx	0	18	51	1	0	0	3	11	4	16	4	5	5	0	0	1	0	0	3	22	9	1	0	0	35	36	0	19	0	1	9	0	51	29	38	0		

**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Fetuses																																					
RIGHT FORELIMB																																					
NON-OSSIFIED																																					
- digit 1 distal phalanx	0	0	11	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	15	0	1	0	0	12	3	0	5	0	0	4	0	6	8	15	0	
- metacarpalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 2 proximal phalanx	34	27	56	31	8	7	16	12	20	16	12	7	5	8	0	13	8	16	12	58	12	18	9	16	39	18	23	23	13	7	18	30	26	14	31	0	
- digit 2 distal phalanx	0	1	9	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	9	6	0	1	0	0	3	0	6	6	6	0	
- metacarpalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 3 proximal phalanx	0	1	7	2	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	8	0	2	1	0	2	0	0	1	0	0	0	1	3	0	2	0	
- digit 3 distal phalanx	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	1	1	1	0	
- metacarpalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 4 proximal phalanx	3	3	13	7	0	1	0	1	2	0	0	0	0	0	0	0	0	0	0	11	0	2	1	0	5	3	1	1	2	0	1	3	5	1	2	0	
- digit 4 distal phalanx	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	3	0	0	0	0	0	0	1	2	3	0	
- metacarpalia 5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	
- digit 5 proximal phalanx	56	61	93	66	47	20	44	43	42	49	33	25	35	32	0	51	32	42	40	100	43	49	45	34	60	43	50	43	32	27	37	59	64	24	63	0	
- digit 5 distal phalanx	0	19	52	1	0	0	3	11	4	16	4	5	6	0	0	1	0	0	3	22	9	1	0	0	34	34	0	19	0	1	9	0	51	29	37	0	

**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Fetuses																																					
<b>LEFT HIND LIMB</b>																																					
NON-OSSIFIED																																					
- talus	88	102	110	110	78	98	40	56	61	77	50	63	78	75	0	77	88	93	89	121	88	93	98	0	118	95	102	80	98	76	93	114	105	83	105	0	
- metatarsalia 1	18	8	24	12	1	5	0	1	4	0	0	0	1	2	0	0	1	0	0	20	1	2	0	0	19	18	23	5	12	9	18	14	13	6	15	0	
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 proximal phalanx	62	50	98	77	42	16	2	4	19	3	3	1	6	9	0	2	3	2	8	80	10	10	8	16	93	73	71	61	62	42	56	73	85	53	75	0	
- toe 2 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 proximal phalanx	38	35	69	38	29	13	2	1	10	1	1	1	2	10	0	1	3	0	4	67	4	10	7	0	59	46	36	36	37	20	35	45	55	31	47	0	
- toe 3 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 proximal phalanx	39	34	67	38	26	15	2	1	9	1	1	0	2	10	0	1	3	0	4	67	4	10	7	0	52	42	34	31	35	19	32	41	46	27	45	0	
- toe 4 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 proximal phalanx	103	105	124	120	97	40	19	49	54	53	25	44	56	46	0	31	43	60	61	115	56	78	69	34	126	103	100	93	102	82	95	119	119	100	110	0	
- toe 5 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 distal phalanx	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	

**Table 8: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) FETUS BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Fetuses																																					
RIGHT HIND LIMB																																					
NON-OSSIFIED																																					
- talus	84	101	112	110	77	98	45	54	59	77	52	64	76	74	0	76	90	96	87	122	88	96	97	87	106	93	99	87	95	77	93	117	106	81	103	0	
- metatarsalia 1	19	8	24	13	1	5	0	1	4	0	0	0	1	2	0	1	0	0	0	20	1	2	0	0	19	18	21	5	9	10	18	16	13	5	16	0	
- toe 1 proximal phalanx	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 proximal phalanx	62	51	98	78	42	17	1	4	19	3	3	2	6	10	0	3	3	2	8	81	9	10	8	0	97	74	67	58	66	42	57	85	86	56	80	0	
- toe 2 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 distal phalanx	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 proximal phalanx	38	35	72	38	28	14	1	1	10	1	1	0	2	10	0	1	3	0	4	69	4	10	7	0	59	48	37	34	39	23	35	48	60	34	52	0	
- toe 3 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 proximal phalanx	39	33	70	39	26	14	0	1	10	1	1	0	2	10	0	1	3	0	4	68	3	10	7	0	52	41	36	31	37	23	34	40	54	31	43	0	
- toe 4 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 proximal phalanx	99	104	123	123	97	42	18	46	53	52	26	42	54	44	0	32	43	60	59	113	56	79	69	44	126	104	102	96	102	83	98	123	118	100	102	0	
- toe 5 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 distal phalanx	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Litter																																					
ABNORMAL FINDINGS *	10	8	7	11	0	5	2	1	1	2	2	5	14	8	0	4	5	7	11	8	7	6	2	10	6	2	14	3	11	11	13	8	4	7	5	0	
<b>CRANIUM</b>																																					
INCOMPLETELY OSSIFIED																																					
- os occipitale	5	3	3	2	0	4	1	0	0	0	0	0	2	0	0	0	0	0	0	1	1	3	0	0	3	0	0	2	2	1	2	3	3	2	2	0	
- os parietale, bilateral	6	4	4	2	0	4	2	0	1	2	1	1	3	3	0	2	0	1	1	13	1	3	2	1	3	3	1	3	4	0	2	4	2	3	4	0	
- os interparietale	12	12	14	9	0	10	5	4	4	8	6	2	7	1	0	1	4	3	1	5	4	5	4	3	10	5	13	8	12	4	5	13	8	5	8	0	
- os parietale, left	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	
- os parietale, right	1	1	0	1	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	2	2	1	0	0	1	0	1	0	1	0	1	3	0	0	1	0	
- os frontale, left	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- os frontale, right	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- os hyoideum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	2	1	1	1	0	0	3	0	
- zygomatic process of maxilla, left	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2	2	0	1	0	0	0	0	
- zygomatic process of maxilla, right	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2	1	0	1	0	2	0	0	0	
- jugal, left	0	0	0	0	0	4	0	0	0	2	0	0	0	1	0	1	2	0	1	0	0	2	3	0	3	1	1	2	2	1	1	0	0	1	3	0	
- jugal, right	0	0	0	0	0	5	1	0	0	1	0	1	2	2	0	1	2	0	2	0	2	3	2	1	1	1	1	2	3	1	1	0	0	1	4	0	
- zygomatic process of squamosal, left	0	0	0	0	0	2	0	1	0	2	1	0	0	1	0	0	0	1	0	1	2	2	0	0	0	0	1	2	2	0	1	0	0	1	1	0	
- zygomatic process of squamosal, right	0	0	0	0	0	3	1	1	0	2	1	1	1	2	0	0	0	0	2	0	2	3	2	1	0	0	1	2	2	0	1	0	0	1	2	0	

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0		
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0		
Litter																																						
ABNORMAL FINDINGS *	10	8	7	11	0	5	2	1	1	2	2	5	14	8	0	4	5	7	11	8	7	6	2	10	6	2	14	3	11	11	13	8	4	7	5	0		
<b>CERVICAL VERTEBRAE</b>																																						
INCOMPLETELY OSSIFIED																																						
- cervical vertebral body 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
NON-OSSIFIED																																						
- cervical vertebral body 1	0	0	4	4	4	5	1	3	0	1	0	5	2	2	0	3	5	2	3	8	7	1	5	1	4	3	7	2	2	4	10	2	4	0	3	0		
- cervical vertebral body 2	0	0	6	11	0	8	4	5	0	2	1	11	4	5	0	5	8	5	9	9	1	6	8	4	10	6	14	8	8	2	12	12	6	6	1	0		
- cervical vertebral body 3	0	0	1	1	0	1	1	1	0	1	0	1	1	2	0	2	3	1	5	4	4	3	5	1	8	3	2	2	0	0	3	2	3	0	2	0		
- cervical vertebral body 4	0	0	1	1	0	0	0	1	0	0	0	1	2	1	0	1	3	0	1	3	4	0	1	0	3	0	1	2	0	0	3	1	2	0	2	0		
- cervical vertebral body 5	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	2	1	0	1	1	1	0	1	0	1	0	1	1	2	0	1	0		
- cervical vertebral body 6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
-cervical vertebral body 7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
DUMBBELL SHAPE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- cervical vertebral body 1	0	0	0	14	0	2	2	1	0	0	0	2	0	3	0	0	5	0	4	3	0	4	2	0	6	4	6	5	1	4	5	2	0	5	0	0		
- cervical vertebral body 2	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
BIPARTITE																																						
- cervical vertebral body 1	0	0	0	1	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	4	0	2	0	1	0	0	0	0	0	0	0		
- cervical vertebral body 2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0		
ADDITIONAL OSSIFICATION																																						
- cervical vertebral arch 7, left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	
- cervical vertebral arch 7, right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	136	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Litter																																					
<b>THORACIC VERTEBRAE</b>																																					
DUMBBELL SHAPE																																					
- thoracic vertebral body 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
- thoracic vertebral body 11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
<b>LUMBAR VERTEBRAE</b>																																					
DUMBBELL SHAPE																																					
- lumbar vertebral body 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
<b>STERNUM</b>																																					
INCOMPLETELY OSSIFIED																																					
- sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	
- sternebra 2	1	2	2	1	2	0	0	0	0	0	0	0	0	0	0	1	0	1	2	2	0	0	0	0	3	2	1	3	1	1	1	1	1	1	1	0	0
- sternebra 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	1	0	0	0	0	0	0	1	0
- sternebra 4	1	0	0	0	2	0	0	1	0	1	0	0	0	0	0	1	0	0	1	1	0	0	0	4	3	0	2	1	4	0	1	0	0	1	0	1	0
- sternebra 5	21	19	17	23	13	16	7	7	2	5	3	3	4	2	0	6	2	3	2	4	3	3	7	1	14	13	6	14	6	12	7	18	9	4	8	0	
- sternebra 6	2	0	3	1	1	0	0	0	0	0	0	0	0	0	0	2	1	0	1	1	0	0	0	1	0	2	2	2	3	0	5	2	1	1	0	0	
NON-OSSIFIED																																					
- sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- sternebra 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- sternebra 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- sternebra 5	0	0	0	1	0	1	0	0	0	2	0	0	1	0	0	0	1	0	0	2	0	0	0	1	0	0	0	0	0	2	1	1	1	1	0	1	0
- sternebra 6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMALLY OSSIFIED																																					
- sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	
- sternebra 3	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	
- sternebra 4	1	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	1	2	0	0	11	0	1	0	0	
- sternebra 5	4	1	1	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0	3	0	0	12	0	0	0	0		
- sternebra 6	2	0	0	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0	0	0	



**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
<b>NUMBER OF LITTERS / FETUSES FOR</b>	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0
<b>SKELETAL EXAMINATION</b>	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0
<b>Litters</b>																																				
<b>RIB(S) LEFT</b>																																				
SUPERNUMERARY RIB(S),	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- one	1	4	2	2	1	3	2	0	1	1	0	1	1	0	0	3	2	0	1	1	2	0	0	1	2	1	2	1	3	2	1	5	1	0	0	0
RUDIMENTARY SUPERNUMERARY RIB(S),	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- one	19	22	20	18	14	17	18	13	8	14	17	16	16	16	0	17	21	15	16	18	17	16	16	18	15	11	18	17	16	19	17	16	11	15	18	0
<b>RIB(S) RIGHT</b>																																				
SUPERNUMERARY RIB(S)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- one	2	1	1	1	1	3	1	0	0	2	1	0	1	1	0	3	2	0	0	0	1	1	0	2	1	0	2	1	1	1	3	3	1	0	0	0
RUDIMENTARY SUPERNUMERARY RIB(S),	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- one	15	21	21	17	15	15	18	12	6	14	17	14	17	15	0	14	17	15	16	19	16	16	16	18	10	13	18	15	16	18	17	16	13	16	16	0
<b>LEFT FORELIMB</b>																																				
NON- OSSIFIED																																				
- digit 1 distal phalanx	0	0	7	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	9	0	1	0	0	7	2	0	5	0	0	3	0	4	5	6	0
- metacarpalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- digit 2 proximal phalanx	13	12	19	17	6	3	8	8	10	11	8	6	5	5	0	8	6	9	8	16	9	10	8	8	16	9	11	10	11	7	10	13	11	8	14	0
- digit 2 distal phalanx	0	0	9	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	5	4	0	1	0	0	2	0	5	4	4	0
- metacarpalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- digit 3 proximal phalanx	0	0	5	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	5	0	2	1	0	1	2	0	0	0	0	0	2	3	0	0	2	0
- digit 3 distal phalanx	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	1	1	1	0
- metacarpalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- digit 4 proximal phalanx	3	3	9	6	0	0	1	0	1	2	0	0	0	0	0	0	0	0	6	0	2	1	0	3	2	0	1	0	0	1	4	5	1	3	0	
- digit 4 distal phalanx	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	1	2	2	0	0
- metacarpalia 5	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0
- digit 5 proximal phalanx	19	23	21	23	19	9	19	17	13	18	13	15	14	14	0	19	13	19	17	19	18	18	19	15	19	18	17	12	13	15	15	20	19	13	19	0
- digit 5 distal phalanx	0	10	18	1	0	0	3	8	4	12	4	4	0	0	0	1	0	0	3	13	3	1	0	0	14	14	0	11	0	1	6	0	17	15	11	0

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Litters																																					
RIGHT FORELIMB																																					
NON-OSSIFIED																																					
- digit 1 distal phalanx	0	0	7	1	0	0	0	1	1	1	1	0	0	0	0	0	0	0	1	9	0	1	0	0	7	2	0	5	0	0	3	0	4	5	6	0	
- metacarpalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- digit 2 proximal phalanx	13	12	20	16	6	4	8	8	10	11	8	6	5	4	0	8	6	9	8	17	9	10	8	8	16	9	12	10	10	7	10	13	11	8	14	0	
- digit 2 distal phalanx	0	1	8	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	4	4	0	1	0	0	2	0	5	4	4	0	
- metacarpalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- digit 3 proximal phalanx	0	1	5	2	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	5	0	2	1	0	1	0	0	1	0	0	0	1	3	0	2	0	
- digit 3 distal phalanx	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	1	1	1	1	0	
- metacarpalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- digit 4 proximal phalanx	3	2	9	6	0	0	1	0	1	2	0	0	0	0	0	0	0	0	0	6	0	2	1	0	3	2	1	1	2	0	1	3	4	1	2	0	
- digit 4 distal phalanx	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	1	2	2	0	
- metacarpalia 5	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	2	0	0	0	
- digit 5 proximal phalanx	18	22	22	23	19	8	19	17	13	18	13	15	13	14	0	19	13	19	16	19	18	18	19	15	18	18	17	13	13	15	15	20	19	12	19	0	
- digit 5 distal phalanx	0	11	18	1	0	0	3	8	4	12	4	4	4	0	0	1	0	0	3	13	3	1	0	0	13	14	0	11	0	1	6	0	17	15	11	0	

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0
Litters																																				
LEFT HIND LIMB																																				
NON-OSSIFIED																																				
- talus	21	23	23	24	21	20	16	19	21	19	20	19	21	20	0	21	22	21	21	21	22	20	22	21	21	20	20	22	21	19	22	24	21	19	21	0
- metatarsalia 1	7	3	11	10	1	2	0	1	3	0	0	0	1	2	0	0	1	0	0	13	1	2	0	0	10	11	12	4	8	5	11	9	7	4	7	0
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 proximal phalanx	16	20	23	24	17	6	2	3	8	3	3	1	5	4	0	2	3	2	7	19	7	7	5	0	21	20	19	19	17	14	17	21	21	17	20	0
- toe 2 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 proximal phalanx	12	14	21	19	15	5	2	1	4	1	1	1	1	4	0	1	3	0	4	19	3	7	5	0	18	18	15	12	15	10	14	15	17	14	17	0
- toe 3 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 proximal phalanx	12	14	21	18	13	7	2	1	4	1	1	0	1	4	0	1	3	0	4	19	4	7	5	0	16	18	16	9	15	10	14	13	15	13	15	0
- toe 4 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 proximal phalanx	23	23	24	25	22	10	13	17	20	19	12	17	18	16	0	17	17	19	18	21	20	20	20	18	21	21	20	22	20	21	24	21	19	20	0	
- toe 5 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 distal phalanx	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0

**Table 9: SKELETAL EXAMINATION OF FETUSES (STAGE OF DEVELOPMENT) LITTER BASIS (CONT'D)**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	
NUMBER OF LITTERS / FETUSES FOR	24	24	24	25	22	21	22	19	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21	22	21	21	22	22	21	22	24	21	20	21	0	
SKELETAL EXAMINATION	136	139	142	142	139	127	125	112	106	116	130	111	133	136	0	129	129	134	125	129	129	114	132	124	146	123	131	131	136	124	126	144	132	119	132	0	
Litters																																					
<b>RIGHT HIND LIMB</b>																																					
NON-OSSIFIED																																					
- talus	21	24	23	24	22	20	16	19	21	19	20	19	21	20	0	21	22	21	21	21	22	20	22	21	21	20	20	22	21	19	22	24	21	19	21	0	
- metatarsalia 1	7	3	11	10	1	2	0	1	3	0	0	0	1	2	0	1	0	0	0	13	1	2	0	0	9	11	12	4	7	5	11	9	7	4	8	0	
- toe 1 proximal phalanx	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	
- toe 1 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
- metatarsalia 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 proximal phalanx	16	20	23	24	17	6	1	3	8	3	3	2	5	4	0	3	3	2	7	19	7	7	5	0	21	19	19	18	19	13	17	22	20	18	20	0	
- toe 2 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 2 distal phalanx	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 proximal phalanx	12	14	21	19	14	5	1	1	4	1	1	0	1	4	0	1	3	0	4	19	3	7	5	0	19	17	14	13	16	10	14	16	18	14	17	0	
- toe 3 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 3 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 proximal phalanx	12	13	21	18	13	5	0	1	4	1	1	0	1	4	0	1	3	0	4	19	3	7	5	0	18	18	14	11	15	9	14	15	17	14	15	0	
- toe 4 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 4 distal phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- metatarsalia 5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 proximal phalanx	23	23	24	25	22	10	12	17	20	19	13	17	18	16	0	16	17	19	18	21	20	20	20	19	21	20	20	22	22	20	22	24	21	20	20	0	
- toe 5 medial phalanx	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- toe 5 distal phalanx	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

**Table 10: Abnormal Findings from cartilage Examination of Fetuses**

Identification	1	2	3	4	5	6
Number of litters	24	24	24	25	22	21
Number of fetuses	136	139	142	142	139	127
Incidences of fetuses with	N	N	N	N	N	N
Sternum partially split	0	1	0	0	0	0
Thoracic vertebral body dumbbell-shaped	0	0	1	1	0	1
Thoracic vertebral body bipartite	0	0	0	1	0	0
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral	0	0	0	2	0	5
Ribs medial fusion	0	0	0	1	0	0
Fetuses with any abnormal finding	0	1	1	4	0	1
Litters with any abnormal finding	0	1	1	4	0	1

**Table 11: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) FETUS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF FETUSES EXAMINED</b>	136	139	142	142	139	127	124	0	106	116	130	111	133	135	0	129	129	134	125	129	129	114	132	124
<b>Fetuses</b>																								
<b>ABNORMAL FINDING(S)</b>	0	1	1	4	0	1	0	0	0	1	0	0	2	3	0	1	4	3	3	3	1	2	0	0
<b>CARTILAGINOUS CERVICAL VERTEBRAE</b>																								
LONG																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	2	0	2	2	0	1	0	1	1	0	1	0	0	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1
CRANIAL SHIFT TO CERVICAL VERTEBRA 5																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	1	0	0	1	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0
CAUDAL SHIFT TO CERVICAL VERTEBRA 7																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	1	0	0	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CARTILAGINOUS STERNUM</b>																								
INCOMPLETELY CHONDRIFIED																								
- cartilaginous sternebra 1	1	67	51	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 2	10	52	35	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 3	1	3	6	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 4	0	0	7	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 5	0	2	11	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 6	30	16	44	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- xiphoid cartilage	31	39	83	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMALLY CHONDRIFIED																								
- cartilaginous sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 4	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 5	2	1	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRANCHED																								
- xiphoid cartilage	0	0	0	0	69	1	11	0	27	26	35	9	51	48	0	6	16	29	27	27	14	32	28	38
SPLIT																								
- xiphoid cartilage	100	81	46	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WITH SMALL HOLE																								
- xiphoid cartilage	0	0	0	0	0	0	14	0	14	17	22	10	21	14	0	14	25	23	18	23	16	24	24	22

**Table 11: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) FETUS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF FETUSES EXAMINED</b>	<b>136</b>	<b>139</b>	<b>142</b>	<b>142</b>	<b>139</b>	<b>127</b>	<b>124</b>	<b>0</b>	<b>106</b>	<b>116</b>	<b>130</b>	<b>111</b>	<b>133</b>	<b>135</b>	<b>0</b>	<b>129</b>	<b>129</b>	<b>134</b>	<b>125</b>	<b>129</b>	<b>129</b>	<b>114</b>	<b>132</b>	<b>124</b>
<b>Fetuses</b>																								
<b>ABNORMAL FINDING(S)</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>COSTAL CARTILAGES</b>																								
LONG																								
- costal cartilage, 11 left	0	0	0	0	0	7	28	0	1	4	0	1	4	5	0	6	4	6	4	2	4	3	3	3
- costal cartilage, 11 right	0	0	0	0	0	8	20	0	2	8	0	1	5	8	0	6	1	6	5	4	2	6	1	6
INTERRUPTED																								
- costal cartilage, 10 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	1
- costal cartilage, 11 left	0	0	0	0	0	0	26	0	11	28	21	22	28	29	0	28	31	29	22	22	39	22	11	30
- costal cartilage, 12 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
- costal cartilage, 10 right	0	0	0	0	0	0	0	0	0	1	3	1	5	0	0	2	0	1	1	0	1	1	0	0
- costal cartilage, 11 right	0	0	0	0	0	0	18	0	13	22	25	18	21	30	0	23	23	32	21	18	38	19	19	28
NOT REACHING STERNUM																								
- costal cartilage, 7 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
- costal cartilage, 7 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
INCOMPLETELY CHONDRIFIED																								
- costal cartilage, 11 left	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 left	0	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 left	0	0	4	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 5 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 6 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 7 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 9 right	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 10 right	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 right	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 right	0	1	4	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SHORTENED																								
- costal cartilage, 11 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 left	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 left	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

**Table 11: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) FETUS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF FETUSES EXAMINED</b>	<b>136</b>	<b>139</b>	<b>142</b>	<b>142</b>	<b>139</b>	<b>127</b>	<b>124</b>	<b>0</b>	<b>106</b>	<b>116</b>	<b>130</b>	<b>111</b>	<b>133</b>	<b>135</b>	<b>0</b>	<b>129</b>	<b>129</b>	<b>134</b>	<b>125</b>	<b>129</b>	<b>129</b>	<b>114</b>	<b>132</b>	<b>124</b>
<b>Fetuses</b>																								
<b>ABNORMAL FINDING(S)</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>
<b>COSTAL CARTILAGE(S), LEFT</b>																								
SUPERNUMERARY, ONE																								
- costal cartilage(s), left	2	2	3	2	1	5	2	0	1	1	0	1	1	0	0	4	3	0	1	1	3	0	0	2
<b>COSTAL CARTILAGE(S), RIGHT</b>																								
SUPERNUMERARY, ONE																								
- costal cartilage(s), right	2	0	1	1	1	4	1	0	0	2	1	0	2	1	0	3	3	0	0	0	1	1	0	3

**Table 12: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) LITTERS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF LITTERS EXAMINED</b>	24	24	24	25	22	21	22	0	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
<b>Litters</b>																								
<b>ABNORMAL FINDING(S)</b>	0	1	1	4	0	1	0	0	0	1	0	0	2	2	0	1	3	3	2	3	1	2	0	0
<b>CARTILAGINOUS CERVICAL VERTEBRAE</b>																								
LONG																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	2	0	2	2	0	1	0	1	1	0	1	0	0	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1
CRANIAL SHIFT TO CERVICAL VERTEBRA 5																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2	0	1	0	1	0	0	1	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0
CAUDAL SHIFT TO CERVICAL VERTEBRA 7																								
- ventral plate, left	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	1	0	0	0
- ventral plate, right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>CARTILAGINOUS STERNUM</b>																								
INCOMPLETELY CHONDRIFIED																								
- cartilaginous sternebra 1	1	20	21	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 2	10	23	17	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 3	1	2	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 4	0	0	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 5	0	2	8	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 6	19	10	18	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- xiphoid cartilage	18	17	20	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ABNORMALLY CHONDRIFIED																								
- cartilaginous sternebra 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 3	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 4	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 5	2	1	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- cartilaginous sternebra 6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
BRANCHED																								
- xiphoid cartilage	0	0	0	0	19	1	7	0	13	14	18	8	19	20	0	5	12	15	15	15	12	17	15	19
SPLIT																								
- xiphoid cartilage	24	24	19	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
WITH SMALL HOLE																								
- xiphoid cartilage	0	0	0	0	0	0	9	0	9	8	11	8	10	10	0	10	13	13	12	11	12	13	13	13



**Table 12: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) LITTERS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF LITTERS EXAMINED</b>	24	24	24	25	22	21	22	0	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
<b>Litters</b>																								
<b>ABNORMAL FINDING(S)</b>	0	1	1	4	0	1	0	0	0	1	0	0	2	2	0	1	3	3	2	3	1	2	0	0
<b>COSTAL CARTILAGES</b>																								
LONG																								
- costal cartilage, 11 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INTERRUPTED																								
- costal cartilage, 10 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 10 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INCOMPLETELY CHONDRIFIED																								
- costal cartilage, 11 left	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 left	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 left	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 5 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 6 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 7 right	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 9 right	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 10 right	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 right	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 right	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
LONG																								
- costal cartilage, 11 left	0	0	0	0	0	5	15	0	1	4	0	1	1	4	0	4	4	6	3	2	3	3	2	3
- costal cartilage, 11 right	0	0	0	0	0	6	11	0	1	7	0	1	2	6	0	5	1	4	4	3	2	4	1	5

**Table 12: CARTILAGE EXAMINATIONS OF FETUSES (STAGE OF DEVELOPMENT AND VARIATIONS) LITTERS BASIS**

Identification	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>NUMBER OF LITTERS EXAMINED</b>	24	24	24	25	22	21	22	0	21	19	22	20	22	22	0	22	22	21	21	21	22	21	22	21
<b>Litters</b>																								
<b>ABNORMAL FINDING(S)</b>	0	1	1	4	0	1	0	0	0	1	0	0	2	2	0	1	3	3	2	3	1	2	0	0
<b>COSTAL CARTILAGES</b>																								
<b>SHORTENED</b>																								
- costal cartilage, 11 left	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 left	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 left	0	1	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 11 right	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 12 right	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
- costal cartilage, 13 right	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
<b>INTERRUPTED</b>																								
- costal cartilage, 10 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	2	0	1
- costal cartilage, 11 left	0	0	0	0	0	0	14	0	8	14	13	14	16	16	0	16	15	14	12	14	17	11	6	18
- costal cartilage, 12 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
- costal cartilage, 10 right	0	0	0	0	0	0	0	0	0	1	3	1	3	0	0	2	0	1	1	0	1	1	0	0
- costal cartilage, 11 right	0	0	0	0	0	0	11	0	11	14	15	13	15	15	0	12	13	16	10	12	17	12	12	16
<b>NOT REACHING STERNUM</b>																								
- costal cartilage, 7 left	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
- costal cartilage, 7 right	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
<b>COSTAL CARTILAGE(S), LEFT</b>																								
<b>SUPERNUMERARY, ONE</b>																								
- costal cartilage(s), left	1	2	2	2	1	5	2	0	1	1	0	1	1	0	0	3	3	0	1	1	2	0	0	1
<b>COSTAL CARTILAGE(S), RIGHT</b>																								
<b>SUPERNUMERARY, ONE</b>																								
- costal cartilage(s), right	2	0	1	1	1	4	1	0	0	2	1	0	1	1	0	3	3	0	0	0	1	1	0	2

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**Reproduction Data (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
<b>Number Of Females Mated</b>	<b>759</b>	<b>21.69</b>	<b>3.86</b>	<b>0.00</b>	<b>25.00</b>
<b>Pregnant</b>	<b>740</b>	<b>21.14</b>	<b>3.88</b>	<b>0.00</b>	<b>25.00</b>
<b>Corpora Lutea</b>	<b>10414</b>	<b>297.54</b>	<b>55.44</b>	<b>0.00</b>	<b>341.00</b>
<b>Pre-Implantation Loss</b>	<b>693</b>	<b>19.80</b>	<b>6.67</b>	<b>0.00</b>	<b>33.00</b>
% Of Corp. Lutea	-	6.48	2.22	0.00	11.80
Number Of Dams Affected	393	11.23	3.58	0.00	17.00
<b>Implantation Sites</b>	<b>9721</b>	<b>277.74</b>	<b>52.39</b>	<b>0.00</b>	<b>319.00</b>
% Of Corp. Lutea	-	90.61	15.88	0.00	96.90
<b>Post-Implantation Loss</b>	<b>569</b>	<b>16.26</b>	<b>7.34</b>	<b>0.00</b>	<b>37.00</b>
% Of Impl. Sites	-	5.66	2.51	0.00	12.20
Number Of Dams Affected	347	9.91	3.53	0.00	18.00
<b>Implantation Site Scars</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Embryonic / Fetal Deaths : Total</b>	<b>569</b>	<b>16.26</b>	<b>7.34</b>	<b>0.00</b>	<b>37.00</b>
<b>Embryonic / Fetal Resorptions</b>	<b>496</b>	<b>14.17</b>	<b>6.21</b>	<b>0.00</b>	<b>34.00</b>
% Of Impl. Sites	-	4.92	2.05	0.00	11.20
Number Of Dams Affected	318	9.09	3.30	0.00	17.00
<b>Fetal Resorptions</b>	<b>73</b>	<b>2.09</b>	<b>2.17</b>	<b>0.00</b>	<b>11.00</b>
% Of Impl. Sites	-	0.74	0.82	0.00	4.30
Number Of Dams Affected	57	1.63	1.40	0.00	5.00

**Reproduction Data (Cont'D) (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>Fetuses</b>					
<b>Total Fetuses</b>	<b>9152</b>	<b>261.49</b>	<b>49.32</b>	<b>0.00</b>	<b>300.00</b>
% Of Impl. Sites	-	91.49	16.09	0.00	98.90
<b>Live Fetuses</b>	<b>9152</b>	<b>261.49</b>	<b>49.32</b>	<b>0.00</b>	<b>300.00</b>
<b>Dead Fetuses</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Malformed Fetuses</b>	<b>6</b>	<b>0.17</b>	<b>0.45</b>	<b>0.00</b>	<b>2.00</b>
% Of Fetuses	-	0.07	0.18	0.00	0.80
Number Of Dams Affected	6	0.17	0.45	0.00	2.00
<b>Malformed Live Fetuses At External Exam.</b>	<b>6</b>	<b>0.17</b>	<b>0.45</b>	<b>0.00</b>	<b>2.00</b>
<b>Malformed Dead Fetuses At External Exam.</b>	<b>0</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>Sex Of Fetuses</b>					
<b>Total Males</b>	<b>4464</b>	<b>127.54</b>	<b>25.80</b>	<b>0.00</b>	<b>159.00</b>
% Of Fetuses	-	47.40	8.96	0.00	56.00
<b>Total Females</b>	<b>4687</b>	<b>133.91</b>	<b>27.21</b>	<b>0.00</b>	<b>178.00</b>
% Of Fetuses	-	49.73	9.34	0.00	59.30

**Weights Of Live Fetuses (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>Weights Of Live Fetuses</b>					
<b>(Litter Basis)</b>					
<b>Males And Females</b>					
N (Litters)	739	21.11	3.89	0.00	25.00
<b>Males</b>					
N (Litters)	737	21.06	3.90	0.00	25.00
<b>Females</b>					
N (Litters)	735	21.00	3.91	0.00	25.00
<b>(Individual Basis)</b>					
<b>Males And Females</b>					
N (Fetuses)	9152	261.49	49.32	0.00	300.00
<b>Males</b>					
N (Fetuses)	4464	127.54	25.80	0.00	159.00
<b>Females</b>					
N (Fetuses)	4687	133.91	27.21	0.00	178.00

**Spontaneous Abnormal Findings (External) (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>Number Of Litters</b>	<b>717</b>	<b>19.92</b>	<b>6.22</b>	<b>0</b>	<b>25</b>
<b>Number Of Fetuses</b>	<b>8946</b>	<b>248.50</b>	<b>78.51</b>	<b>0</b>	<b>301</b>
Head malformed (including upper and lower jaw)	1	0.03	0.17	0	1
Agnathia inferior, oral opening reduced to small hole (d < 1mm), nostrils absent	1	0.03	0.17	0	1
Astomia and agnathia	1	0.03	0.17	0	1
Agnathia inferior, cranium abnormally shaped, skull open, brain tissue protruding but covered with skin, astomia, both eyes apparently absent	1	0.03	0.17	0	1
Assumed hydrocephalus (finding confirmed by visceral examination)	1	0.03	0.17	0	1
Craniorachischisis, exencephaly, spina bifida aperta	1	0.03	0.17	0	1

**Abnormal Findings From Visceral Examination Of Fetuses (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
Number of litters	739	20.53	5.21	0	25
Number of fetuses	4771	132.53	34.04	0	155
Incidences of fetuses with					
Azygos vein (bilateral/right-sided)	3	0.08	0.37	0	2
Brain lateral ventricles dilated (slight)	11	0.31	0.79	0	3
Brain, cerebral and midbrain region perimeningeal space increased	1	0.03	0.17	0	1
Internal hydrocephali	1	0.03	0.17	0	1
Situs inversus	8	0.22	0.54	0	2
Cleft palate	1	0.03	0.17	0	1
Perimeningeal haemorrhage midbrain region	6	0.17	0.85	0	5
Thymus cranially elongated (bi-/unilateral)	230	6.39	6.94	0	25
Thymus elongated (bi-/unilateral)	91	2.53	4.71	0	19
Thyroid enlarged	1	0.03	0.17	0	1
Localized haemorrhage	395	10.97	9.67	0	41
Liver additional lobe(s) within median cleft	652	18.11	9.73	0	38
Liver median cleft displaced	71	1.97	3.35	0	15
Liver left lateral lobe additional cleft	384	10.67	10.03	0	41
Liver lobe(s) abnormally shaped	7	0.19	1.17	0	7
Liver left lateral lobe protruding beneath diaphragm (resultant compression of left lung lobe)	1	0.03	0.17	0	1
Liver papillary/caudal process misshapen	1	0.03	0.17	0	1
Liver lobe(s) misshapen	1	0.03	0.17	0	1
Liver left lateral lobe bipartite	1	0.03	0.17	0	1
Liver lateral lobe, haemorrhage	1	0.03	0.17	0	1
Liver, papillary process reduced/misshapen (twisted)	2	0.06	0.23	0	1
Liver lobes adhered	1	0.03	0.17	0	1
Urinary bladder distended	36	1.00	2.57	0	14
Umbilical artery left-sided	559	15.53	6.43	0	29



**Abnormal Findings From Visceral Examination Of Fetuses (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	739	20.53	5.21	0	25
Number of fetuses	4771	132.53	34.04	0	155
Incidences of fetuses with					
Innominate artery elongated	2	0.06	0.24	0	1
Innominate artery shortened	3	0.08	0.28	0	1
Intra - abdominal haemorrhage	1	0.03	0.17	0	1
Kidney misshapen	1	0.03	0.17	0	1
Left subclavian artery origin displaced (arising from descending aorta)	3	0.08	0.50	0	3
Lateral (right) displacement of heart and further abnormalities	3	0.08	0.50	0	3
Lens, abnormal texture areas	2	0.06	0.33	0	2
Head, different regions, discolored - dark area (query fixation)	2	0.06	0.33	0	2
Heart misshapen	2	0.06	0.23	0	1
Heart apex divided	1	0.03	0.17	0	1
Heart interventricular septal defect	2	0.06	0.23	0	1
Heart and major arterial trunks malrotated	1	0.03	0.17	0	1
Heart and right lung lobes displaced	1	0.03	0.17	0	1
Heart atrium enlarged (bi-/unilateral)	3	0.08	0.50	0	3
Haemorrhage cerebral perimeningeal or	2	0.06	0.23	0	1
Internal haemorrhage	1	0.03	0.17	0	1
Origin of left subclavian artery displaced (post-ductal)	1	0.03	0.17	0	1
Multiple malformations	4	0.13	0.42	0	2
Small additional lung lobe	1	0.03	0.17	0	1
Small lung lobe irregularly in shape	1	0.03	0.17	0	1
Eye, lenticular lesion	6	0.17	1.00	0	6
Eye haemorrhage (unilateral)	3	0.08	0.37	0	2

**Abnormal Findings From Visceral Examination Of Fetuses (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	739	20.53	5.21	0	25
Number of fetuses	4771	132.53	34.04	0	155
Incidences of fetuses with					
Right lung enlarged	1	0.03	0.17	0	1
Lung lobes partially fused	2	0.06	0.33	0	2
Lung right caudal and accessory lung lobes partially fused	7	0.19	0.52	0	2
Palatine rugae - none present	1	0.03	0.17	0	1
Lung lobe(s) misshapen	2	0.06	0.33	0	2
Lung lobes partially fused	3	0.08	0.28	0	1
Lung right caudal and accessory lobes partially	4	0.11	0.52	0	3
Thoracic situs inversus and further abnormal findings	1	0.03	0.17	0	1
Thoracic and abdominal situs inversus	1	0.03	0.17	0	1
Thoracic and abdominal situs inversus with ventricular region of heart divided apex or interventricular septal defect	1	0.03	0.17	0	1
Tracheal cartilages disorganized	4	0.11	0.52	0	3
Subcutaneous oedema, head	1	0.03	0.17	0	1
Subcutaneous haemorrhage, hind limb/tail	3	0.08	0.37	0	2
Anophthalmia (bi-/unilateral)	2	0.06	0.23	0	1
Oral passage not patent	1	0.03	0.17	0	1
Oesophagus right-sided	3	0.08	0.28	0	1
Oesophagus behind trachea	1	0.03	0.17	0	1
Oesophagus displaced	1	0.03	0.17	0	1
Right subclavian artery retro-oesophageal	1	0.03	0.17	0	1
Left subclavian artery origin displaced	4	0.11	0.46	0	2
Olfactory lobes-ventricles dilated, uni-/bilateral	3	0.08	0.37	0	2
	1	0.03	0.17	0	1
Diaphragm locally thinned	41	1.14	1.94	0	8
Diaphragm tendinous region locally thinned (severe)	1	0.03	0.17	0	1
Diaphragmatic hernia	1	0.03	0.17	0	1
Absence of spleen	1	0.03	0.17	0	1

**Abnormal Findings From Visceral Examination Of Fetuses (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
Number of litters	739	20.53	5.21	0	25
Number of fetuses	4771	132.53	34.04	0	155
Incidences of fetuses with					
Spleen extra tissue adhesion	0	0.00	0.00	0	0
Spleen displaced and misshapen	1	0.03	0.17	0	1
Subcutaneous haemorrhage (head, lower jaw,	97	2.69	8.35	0	41
Testis(es) partially descended (percentage of male fetuses)	0	0.00	0.00	0	0
Testis(es) displacement cranial/medial (uni-/bilaterally) - (% of male fetuses)	95	2.64	2.90	0	9
Tail hooked at distal extremity	1	0.03	0.17	0	1
Fetuses with any abnormal findings	2219	61.64	19.93	0	92
Renal pelvis(es) dilated (uni-/bilaterally)	28	0.78	1.55	0	7
Stomach, spleen and pancreas malrotated	2	0.06	0.23	0	1
Pancreas adhesion to lung lobe	1	0.03	0.17	0	1
Falciform ligament of liver absent	1	0.03	0.17	0	1

**General comments**

Identification	Total n	Absolute		Relative	
		Mean	STDEV	Mean	STDEV
Number of litters	739	20.53	5.21		
Number of fetuses	4771	132.53	34.04		
Incidences of fetuses with					
Fetus with other findings	1	0.03	0.17		
Litters with any abnormal findings	706	19.61	5.04		
Less common and/or more severe findings	7	0.19	1.17		
Other abnormalities	2	0.06	0.23		
Artifact	3	0.08	0.37		

**Abnormal Findings and Variation from Skeletal Examination of Fetuses - Summary (Absolute Numbers)**

<b>Introduction</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	377	20.94	5.42	0	25
Number of fetuses	2269	126.06	32.39	0	146
Incidences of fetuses with					
Cervical vertebral arch non-ossified	1	0.06	0.24	0	1
Cervical vertebral body dumbbell-shaped	1	0.06	0.24	0	1
Cervical vertebral body non-ossified	1	0.06	0.24	0	1
Wavy rib(s)	12	0.67	1.64	0	6
Rudimentary cervical rib, uni-bilateral	32	1.78	2.18	0	6
Ribs wavy uni-/bilateral	4	0.22	0.43	0	1
Rib(s) branched	1	0.06	0.24	0	1
Ribs fused	1	0.06	0.24	0	1
Superior maxilla abnormally shaped	1	0.06	0.24	0	1
Fontanelle increased in size	1	0.06	0.24	0	1
Zygomatic arch fusion (process of maxilla to jugal), uni-/bilateral	49	2.72	3.29	0	14
Zygomatic arch incompletely/abnormally ossified, uni-/bilateral	4	0.22	0.73	0	3
Zygomatic process of squamosa and/or jugal incompletely ossified, uni-/bilateral	1	0.06	0.24	0	1

**Abnormal Findings and Variation from Skeletal Examination of Fetuses - Summary (Absolute Numbers)**

<b>Introduction</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	377	20.94	5.42	0	25
Number of fetuses	2269	126.06	32.39	0	146
Incidences of fetuses with					
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral arches)	20	1.11	1.53	0	5
Thoracic vertebral body(ies) dumbbell-shaped	19	1.06	1.92	0	7
Thoracic vertebral body(ies) bipartite	8	0.44	0.70	0	2
Thoracic vertebral body unilaterally ossification	1	0.06	0.24	0	1
Lumbar scoliosis	1	0.06	0.24	0	1
Lumbar vertebral body(ies) dumbbell-shaped	1	0.06	0.24	0	1
Sternebra(e) abnormally shaped	4	0.22	0.94	0	4
Sternebra(e) bipartite ossification	3	0.17	0.51	0	2
Sternebra(e) assymmetrically aligned	2	0.11	0.47	0	2
Sternebra(e) offset	1	0.06	0.24	0	1
Sternebrae abnormally ossified	1	0.06	0.24	0	1
Jugal incompletely ossified, uni-/bilateral	1	0.06	0.24	0	1
Os interparietale and/or occipitale fused	1	0.06	0.24	0	1

**General comments**

<b>Introduction</b>	<b>Total n</b>	<b>Absolute</b>		<b>Relative</b>	
		<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	377	20.94	5.42	0	25
Number of fetuses	2269	126.06	32.39	0	146
Incidences of fetuses with					
Fetuses with any abnormal finding	158	8.78	5.41	0	19
Litters with any abnormal finding	121	6.72	3.89	0	14

**Abnormal Findings from Skeletal and Cartilage Examination of Fetuses - Summary**  
**(Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	360	20.00	5.09	0	22
Number of fetuses	2114	117.44	30.61	0	136
Incidences of fetuses with					
<b>Bones</b>					
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral arches)	46	2.56	2.25	0	8
Sternebrae 3-5 abnormally shaped, 4 with bipartite ossification	1	0.06	0.24	0	1
Sternebrae 4 and 5 offset	1	0.06	0.24	0	1
Sternebra 5 bipartite	1	0.06	0.24	0	1
Costal cartilages 4 and 5	1	0.06	0.24	0	1
Zygomatic arch fusion (process of maxilla to	44	2.44	4.09	0	12
Thoracic vertebral body 12 dumbbell-shaped	1	0.06	0.24	0	1
Mandibles and lower incisors fused	1	0.06	0.24	0	1
Zygomatic arch fusion	22	1.22	3.62	0	13
Cervical vertebral fused to exoccipital	3	0.17	0.38	0	1
Cervical rib rudimentary	1	0.06	0.24	0	1
Vertebral arch of cervical vertebra 1 absent	1	0.06	0.24	0	1

**Abnormal Findings from Skeletal and Cartilage Examination of Fetuses - Summary (Cont'd)**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
Number of litters	360	20.00	5.09	0	22
Number of fetuses	2114	117.44	30.61	0	136
Incidences of fetuses with					
<b>Bones</b>					
Thoracic vertebral body dumbbell-shaped	9	0.50	0.71	0	2
Thoracic vertebral body bipartite ossification	3	0.17	0.51	0	2
Thoracic vertebral arch 13 reduced in size	1	0.06	0.24	0	1
Thoracic vertebral arch 13 fused with lumbar vertebral	1	0.06	0.24	0	1
Lumbar vertebral body 1 absent	1	0.06	0.24	0	1
Lumbar vertebral body dumbbell-shaped	1	0.06	0.24	0	1
Lumbar vertebral body bipartite ossification	1	0.06	0.24	0	1
Sternebrae fused	1	0.06	0.24	0	1
Sternebra bipartite ossification	5	0.28	0.83	0	3
Sternebra offset	3	0.17	0.51	0	2
Cervical rib rudimentary	2	0.11	0.47	0	2
Ribs branched	1	0.06	0.24	0	1
Ribs short	1	0.06	0.24	0	1
Ribs wavy	2	0.11	0.47	0	2
Scapula misshapen (bent)	1	0.06	0.24	0	1
Humerus misshapen (bent)	1	0.06	0.24	0	1

**General comments**

Identification	Total n	Absolute		Relative	
		Mean	STDEV	MIN	MAX
Number of litters	360	20.00	5.09		
Number of fetuses	2114	117.44	30.61		
Incidences of fetuses with					
<b>Bones</b>					
Fetuses with any abnormal finding	16	0.89	1.64		
Litters with any abnormal finding	14	0.78	1.40		

**Abnormal Findings from Skeletal and Cartilage Examination of Fetuses - Summary (Cont'd)**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
Number of litters	360	20.00	5.09	0	22
Number of fetuses	2114	117.44	30.61	0	136
Incidences of fetuses with					
<b>Cartilage</b>					
Additional ventral plate	8	0.44	0.98	0	3
Scapula cartilage bent	1	0.06	0.24	0	1
Cartilaginous cervical rib	1	0.06	0.24	0	1
Cartilaginous cervical centra split	1	0.06	0.24	0	1
Cartilaginous cervical centra fused	2	0.11	0.47	0	2
Cartilaginous thoracic centrum split / misshapen /	3	0.17	0.71	0	3
Thoracic vertebral arch/body split	1	0.06	0.24	0	1
Cartilaginous vertebral body split / dumbbell-	2	0.11	0.47	0	2
Coastal cartilage fused	4	0.22	0.55	0	2
Coastal cartilage short	3	0.17	0.51	0	2
Coastal cartilage interrupted	1	0.06	0.24	0	1
Coastal cartilage offset	4	0.22	0.55	0	2
Costal cartilages branched	1	0.06	0.24	0	1
Cartilage between sternbrae split	2	0.11	0.47	0	2
Lumbar vertebral body dumbbell-shaped	1	0.06	0.24	0	1

**General comments**

Identification	Total n	Absolute		Relative	
		Mean	STDEV	MIN	MAX
Number of litters	0	20.00	5.09		
Number of fetuses	0	117.44	30.61		
Incidences of fetuses with					
<b>Cartilage</b>					
Fetuses with multiple findings	3	0.17	0.71		
Fetuses with any abnormal finding	133	7.39	7.24		
Litters with any abnormal finding	88	4.89	4.76		



**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>ABNORMAL FINDINGS*</b>	303	8.42	5.91	0	20
<b>CRANIUM</b>					
INCOMPLETELY OSSIFIED	2	0.06	0.33	0	2
- os occipitale	60	1.67	1.90	0	8
- os parietale, bilateral	132	3.67	5.64	0	32
- os interparietale	348	9.67	8.89	0	30
- os parietale, left	9	0.25	0.55	0	2
- os parietale, right	25	0.69	1.12	0	5
- os frontale, left	71	1.97	11.15	0	67
- os frontale, right	71	1.97	11.15	0	67
- os hyoideum	12	0.34	0.87	0	4
- zygomatic process of	10	0.28	0.70	0	3
- zygomatic process of	12	0.33	0.72	0	3
- jugal, left	44	1.22	1.76	0	8
- jugal, right	52	1.44	2.18	0	10
- zygomatic process of squamosal, left	28	0.78	1.07	0	4
- zygomatic process of squamosal, right	36	1.00	1.41	0	5
<b>CERVICAL VERTEBRAE</b>					
NON-OSSIFIED	0	0.00	0.00	0	0
- cervical vertebral body 1	92	2.56	3.58	0	15
- cervical vertebral body 2	184	5.11	6.76	0	22
- cervical vertebral body 3	104	2.89	3.37	0	15
- cervical vertebral body 4	180	5.00	7.97	0	33
- cervical vertebral body 5	45	1.25	1.98	0	8
- cervical vertebral body 6	20	0.56	1.05	0	4
- cervical vertebral body 7	11	0.31	0.58	0	2
DUMBELL SHAPE					
- cervical vertebral body 1	100	2.78	4.24	0	23
- cervical vertebral body 2	3	0.08	0.50	0	3

\* DESCRIPTIONS IN THE TABLES OF SPONTANEOUS ABNORMAL FINDINGS

**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b><u>CERVICAL VERTEBRAE</u></b>					
BIPARTITE					
- cervical vertebral body 1	14	0.39	1.10	0	5
- cervical vertebral body 2	2	0.06	0.23	0	1
ADDITIONAL					
- cervical vertebral arch 7, left	3	0.08	0.50	0	3
- cervical vertebral arch 7,	6	0.17	1.00	0	6
<b><u>THORACIC VERTEBRAE</u></b>					
DUMBBELL SHAPE					
- thoracic vertebral body 4	1	0.03	0.17	0	1
- thoracic vertebral body 11	2	0.06	0.33	0	2
<b><u>LUMBAR VERTEBRAE</u></b>					
DUMBBELL SHAPE					
- lumbar vertebral body 1	1	0.03	0.17	0	1
<b><u>STERNUM</u></b>					
INCOMPLETELY OSSIFIED					
- sternebra 1	2	0.06	0.23	0	1
- sternebra 2	31	0.86	0.93	0	3
- sternebra 3	6	0.17	0.51	0	2
- sternebra 4	25	0.69	1.12	0	4
- sternebra 5	578	16.06	19.03	0	70
- sternebra 6	37	1.03	1.50	0	6
NON-OSSIFIED					
- sternebra 1	0	0.00	0.00	0	0
- sternebra 2	1	0.03	0.17	0	1
- sternebra 3	1	0.03	0.17	0	1
- sternebra 4	0	0.00	0.00	0	0
- sternebra 5	18	0.50	0.94	0	4
- sternebra 6	3	0.08	0.37	0	2
ABNORMALLY OSSIFIED					
- sternebra 2	1	0.03	0.17	0	1
- sternebra 3	6	0.17	0.56	0	3
- sternebra 4	29	0.81	2.69	0	16
- sternebra 5	46	1.28	3.54	0	19
- sternebra 6	13	0.36	1.15	0	6

**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b><u>RIB(S) LEFT</u></b>					
SUPERNUMERARY RIB(S),					
- one	56	1.56	1.54	0	7
RUDIMENTARY SUPERNUMERARY RIB(S),					
- one	1365	37.92	13.22	0	57
<b><u>RIB(S) RIGHT</u></b>					
SUPERNUMERARY RIB(S)					
- one	45	1.25	1.16	0	4
RUDIMENTARY SUPERNUMERARY RIB(S),					
- one	1220	33.89	12.28	0	53
<b><u>LEFT FORELIMB</u></b>					
NON- OSSIFIED					
- digit 1 distal phalanx	88	2.44	4.49	0	16
- metacarpalia 2	0	0.00	0.00	0	0
- digit 2 proximal phalanx	677	18.81	13.46	0	57
- digit 2 distal phalanx	62	1.72	3.23	0	11
- metacarpalia 3	0	0.00	0.00	0	0
- digit 3 proximal phalanx	37	1.03	2.16	0	9
- digit 3 distal phalanx	11	0.31	0.71	0	3
- metacarpalia 4	0	0.00	0.00	0	0
- digit 4 proximal phalanx	73	2.03	3.32	0	14
- digit 4 distal phalanx	16	0.44	0.97	0	3
- metacarpalia 5	7	0.19	0.52	0	2
- digit 5 proximal phalanx	1639	45.53	20.99	0	100
- digit 5 distal phalanx	372	10.33	15.10	0	51

**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>RIGHT FORELIMB</b>					
NON-OSSIFIED					
- digit 1 distal phalanx	86	2.39	4.36	0	15
- metacarpalia 2	0	0.00	0.00	0	0
- digit 2 proximal phalanx	663	18.42	13.31	0	58
- digit 2 distal phalanx	59	1.64	2.95	0	9
- metacarpalia 3	0	0.00	0.00	0	0
- digit 3 proximal phalanx	33	0.92	1.83	0	8
- digit 3 distal phalanx	11	0.31	0.71	0	3
- metacarpalia 4	0	0.00	0.00	0	0
- digit 4 proximal phalanx	68	1.89	3.02	0	13
- digit 4 distal phalanx	15	0.42	0.94	0	3
- metacarpalia 5	5	0.14	0.42	0	2
- digit 5 proximal phalanx	1584	44.00	20.11	0	100
- digit 5 distal phalanx	371	10.31	14.99	0	52

**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>LEFT HIND LIMB</b>					
NON-OSSIFIED					
- talus	2902	80.61	30.83	0	121
- metatarsalia 1	252	7.00	7.95	0	24
- toe 1 distal phalanx	2	0.06	0.23	0	1
- toe 1 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 2	0	0.00	0.00	0	0
- toe 2 proximal phalanx	1275	35.42	33.27	0	98
- toe 2 medial phalanx	0	0.00	0.00	0	0
- toe 2 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 3	0	0.00	0.00	0	0
- toe 3 proximal phalanx	793	22.03	21.85	0	69
- toe 3 medial phalanx	0	0.00	0.00	0	0
- toe 3 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 4	0	0.00	0.00	0	0
- toe 4 proximal phalanx	745	20.69	20.50	0	67
- toe 4 medial phalanx	0	0.00	0.00	0	0
- toe 4 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 5	0	0.00	0.00	0	0
- toe 5 proximal phalanx	2631	73.08	36.50	0	126
- toe 5 medial phalanx	0	0.00	0.00	0	0
- toe 5 distal phalanx	2	0.06	0.23	0	1

**Skeletal Examination of Fetuses (Stage of Development) Fetus Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean %	STDEV %	MIN %	MAX %
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>RIGHT HIND LIMB</b>					
NON-OSSIFIED					
- talus	2979	82.75	27.13	0	122
- metatarsalia 1	252	7.00	7.97	0	24
- toe 1 proximal phalanx	3	0.08	0.28	0	1
- toe 1 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 2	0	0.00	0.00	0	0
- toe 2 proximal phalanx	1288	35.78	34.56	0	98
- toe 2 medial phalanx	0	0.00	0.00	0	0
- toe 2 distal phalanx	1	0.03	0.17	0	1
- metatarsalia 3	0	0.00	0.00	0	0
- toe 3 proximal phalanx	818	22.72	22.80	0	72
- toe 3 medial phalanx	0	0.00	0.00	0	0
- toe 3 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 4	0	0.00	0.00	0	0
- toe 4 proximal phalanx	764	21.22	21.20	0	70
- toe 4 medial phalanx	0	0.00	0.00	0	0
- toe 4 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 5	0	0.00	0.00	0	0
- toe 5 proximal phalanx	2632	73.11	36.38	0	126
- toe 5 medial phalanx	0	0.00	0.00	0	0
- toe 5 distal phalanx	3	0.08	0.28	0	1

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean %	STDEV %	MIN %	MAX %
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>ABNORMAL FINDINGS *</b>	220	6.11	4.10	0	14
<b>CRANIUM</b>					
INCOMPLETELY OSSIFIED					
- os occipitale	45	1.25	1.42	0	5
- os parietale, bilateral	86	2.39	2.36	0	13
- os interparietale	215	5.97	4.05	0	14
- os parietale, left	8	0.22	0.48	0	2
- os parietale, right	20	0.56	0.84	0	3
- os frontale, left	20	0.56	2.84	0	17
- os frontale, right	20	0.56	2.67	0	16
- os hyoideum	10	0.28	0.66	0	3
- zygomatic process of	7	0.19	0.52	0	2
- zygomatic process of	10	0.28	0.57	0	2
- jugal, left	31	0.86	1.13	0	4
- jugal, right	40	1.11	1.24	0	5
- zygomatic process of	21	0.58	0.77	0	2
- zygomatic process of	31	0.86	0.96	0	3

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>ABNORMAL FINDINGS *</b>	220	6.11	4.10	0	14
<b>CERVICAL VERTEBRAE</b>					
INCOMPLETELY OSSIFIED					
- cervical vertebral body 0	1	0.03	0.17	0	1
NON-OSSIFIED					
- cervical vertebral body 1	107	2.97	2.47	0	10
- cervical vertebral body 2	197	5.47	4.03	0	14
- cervical vertebral body 3	63	1.75	1.81	0	8
- cervical vertebral body 4	34	0.94	1.15	0	4
- cervical vertebral body 5	18	0.50	0.61	0	2
- cervical vertebral body 6	4	0.11	0.40	0	2
- cervical vertebral body 7	2	0.06	0.23	0	1
DUMBBELL SHAPE	0	0.00	0.00	0	0
- cervical vertebral body 1	80	2.22	2.90	0	14
- cervical vertebral body 2	3	0.08	0.50	0	3
BIPARTITE					
- cervical vertebral body 1	12	0.33	0.89	0	4
- cervical vertebral body 2	2	0.06	0.23	0	1
ADDITIONAL OSSIFICATION					
- cervical vertebral arch 7, left	2	0.06	0.33	0	2
- cervical vertebral arch 7, right	4	0.11	0.67	0	4



**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4380	121.67	31.32	0	146
<b>THORACIC VERTEBRAE</b>					
DUMBBELL SHAPE					
- thoracic vertebral body 4	1	0.03	0.17	0	1
- thoracic vertebral body 11	2	0.06	0.33	0	2
<b>LUMBAR VERTEBRAE</b>					
DUMBBELL SHAPE					
- lumbar vertebral body 1	1	0.03	0.17	0	1
<b>STERNUM</b>					
INCOMPLETELY OSSIFIED					
-sternebra 1	2	0.06	0.23	0	1
- sternebra 2	29	0.81	0.92	0	3
-sternebra 3	5	0.14	0.42	0	2
- sternebra 4	24	0.67	1.10	0	4
- sternebra 5	284	7.89	6.36	0	23
- sternebra 6	31	0.86	1.17	0	5
NON-OSSIFIED					
- sternebra 1	0	0.00	0.00	0	0
- sternebra 2	1	0.03	0.17	0	1
- sternebra 3	1	0.03	0.17	0	1
- sternebra 4	0	0.00	0.00	0	0
- sternebra 5	15	0.42	0.65	0	2
- sternebra 6	3	0.08	0.37	0	2
ABNORMALLY OSSIFIED					
- sternebra 2	1	0.03	0.17	0	1
- sternebra 3	6	0.17	0.56	0	3
- sternebra 4	24	0.67	1.90	0	11
- sternebra 5	34	0.94	2.38	0	12
- sternebra 6	12	0.33	1.01	0	5

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b><u>RIB(S) LEFT</u></b>					
SUPERNUMERARY RIB(S),	0	0.00	0.00	0	0
- one	47	1.31	1.21	0	5
RUDIMENTARY					
SUPERNUMERARY RIB(S),	0	0.00	0.00	0	0
- one	555	15.42	4.66	0	22
<b><u>RIB(S) RIGHT</u></b>					
SUPERNUMERARY RIB(S)	0	0.00	0.00	0	0
- one	37	1.03	0.97	0	3
RUDIMENTARY					
SUPERNUMERARY RIB(S),	0	0.00	0.00	0	0
- one	532	14.78	4.56	0	21
<b><u>LEFT FORELIMB</u></b>					
NON- OSSIFIED					
- digit 1 distal phalanx	55	1.53	2.49	0	9
- metacarpalia 2	0	0.00	0.00	0	0
- digit 2 proximal phalanx	333	9.25	4.19	0	19
- digit 2 distal phalanx	44	1.22	2.28	0	9
- metacarpalia 3	0	0.00	0.00	0	0
- digit 3 proximal phalanx	28	0.78	1.35	0	5
- digit 3 distal phalanx	10	0.28	0.61	0	2
- metacarpalia 4	0	0.00	0.00	0	0
- digit 4 proximal phalanx	54	1.50	2.18	0	9
- digit 4 distal phalanx	12	0.33	0.72	0	2
- metacarpalia 5	7	0.19	0.52	0	2
- digit 5 proximal phalanx	574	15.94	5.02	0	23
- digit 5 distal phalanx	174	4.83	5.91	0	18

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>RIGHT FORELIMB</b>					
NON-OSSIFIED					
- digit 1 distal phalanx	55	1.53	2.49	0	9
- metacarpalia 2	0	0.00	0.00	0	0
- digit 2 proximal phalanx	334	9.28	4.26	0	20
- digit 2 distal phalanx	43	1.19	2.14	0	8
- metacarpalia 3	0	0.00	0.00	0	0
- digit 3 proximal phalanx	27	0.75	1.32	0	5
- digit 3 distal phalanx	10	0.28	0.66	0	3
- metacarpalia 4	0	0.00	0.00	0	0
- digit 4 proximal phalanx	53	1.47	2.06	0	9
- digit 4 distal phalanx	13	0.36	0.80	0	3
- metacarpalia 5	5	0.14	0.42	0	2
- digit 5 proximal phalanx	569	15.81	5.04	0	23
- digit 5 distal phalanx	178	4.94	5.84	0	18

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>LEFT HIND LIMB</b>					
NON-OSSIFIED					
- talus	708	19.67	5.07	0	24
- metatarsalia 1	146	4.06	4.37	0	13
- toe 1 distal phalanx	2	0.06	0.23	0	1
- toe 1 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 2	0	0.00	0.00	0	0
- toe 2 proximal phalanx	393	10.92	8.26	0	24
- toe 2 medial phalanx	0	0.00	0.00	0	0
- toe 2 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 3	0	0.00	0.00	0	0
- toe 3 proximal phalanx	308	8.56	7.18	0	21
- toe 3 medial phalanx	0	0.00	0.00	0	0
- toe 3 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 4	0	0.00	0.00	0	0
- toe 4 proximal phalanx	296	8.22	6.83	0	21
- toe 4 medial phalanx	0	0.00	0.00	0	0
- toe 4 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 5	0	0.00	0.00	0	0
- toe 5 proximal phalanx	660	18.33	5.53	0	25
- toe 5 medial phalanx	0	0.00	0.00	0	0
- toe 5 distal phalanx	2	0.06	0.23	0	1

**Skeletal Examination of Fetuses (Stage of Development) Litters Basis**  
**(Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF LITTERS /</b>	737	20.47	5.20	0	25
<b>SKELETAL EXAMINATION</b>	4383	121.75	31.37	0	146
<b>RIGHT HIND LIMB</b>					
NON-OSSIFIED					
- talus	710	19.72	5.10	0	24
- metatarsalia 1	145	4.03	4.33	0	13
- toe 1 proximal phalanx	3	0.08	0.28	0	1
- toe 1 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 2	0	0.00	0.00	0	0
- toe 2 proximal phalanx	394	10.94	8.25	0	24
- toe 2 medial phalanx	0	0.00	0.00	0	0
- toe 2 distal phalanx	1	0.03	0.17	0	1
- metatarsalia 3	0	0.00	0.00	0	0
- toe 3 proximal phalanx	308	8.56	7.30	0	21
- toe 3 medial phalanx	0	0.00	0.00	0	0
- toe 3 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 4	0	0.00	0.00	0	0
- toe 4 proximal phalanx	296	8.22	7.06	0	21
- toe 4 medial phalanx	0	0.00	0.00	0	0
- toe 4 distal phalanx	0	0.00	0.00	0	0
- metatarsalia 5	0	0.00	0.00	0	0
- toe 5 proximal phalanx	661	18.36	5.56	0	25
- toe 5 medial phalanx	0	0.00	0.00	0	0
- toe 5 distal phalanx	3	0.08	0.28	0	1

**Abnormal Findings from cartilage Examination of Fetuses**  
**(Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
Number of litters	140	23.33	1.51	21	25
Number of fetuses	825	137.50	5.61	127	142
Incidences of fetuses with					
Sternum partially split	1	0.17	0.41	0	1
Thoracic vertebral body dumbbell-shaped	3	0.50	0.55	0	1
Thoracic vertebral body bipartite	1	0.17	0.41	0	1
Pelvic girdle uni-/bilateral caudal displacement (27 pre-pelvic vertebral arches)	7	1.17	2.04	0	5
Ribs medial fusion	1	0.17	0.41	0	1
Fetuses with any abnormal finding	7	1.17	1.47	0	4
Litters with any abnormal finding	7	1.17	1.47	0	4

**Cartilage Examination of Fetuses (Stage of Development and Variations) Fetus Basis (Absolute Numbers)**

Identification	Total n	Mean	STDEV	MIN	MAX
<b>NUMBER OF FETUSES EXAMINED</b>	2825	117.71	37.42	0	142
<b>ABNORMAL FINDING(S)</b>	30	1.25	1.39	0	4
<b><u>CARTILAGINOUS CERVICAL</u></b>					
LONG					
- ventral plate, left	11	0.46	0.72	0	2
- ventral plate, right	4	0.17	0.38	0	1
CRANIAL SHIFT TO CERVICAL VERTEBRA 5					
- ventral plate, left	6	0.25	0.53	0	2
- ventral plate, right	3	0.13	0.34	0	1
CAUDAL SHIFT TO CERVICAL VERTEBRA 7					
- ventral plate, left	4	0.17	0.38	0	1
- ventral plate, right	0	0.00	0.00	0	0
<b><u>CARTILAGINOUS STERNUM</u></b>					
INCOMPLETELY CHONDRIFIED					
- cartilaginous sternebra 1	123	5.13	16.78	0	67
- cartilaginous sternebra 2	133	5.54	14.12	0	52
- cartilaginous sternebra 3	17	0.71	1.90	0	7
- cartilaginous sternebra 4	15	0.63	2.12	0	8
- cartilaginous sternebra 5	21	0.88	2.72	0	11
- cartilaginous sternebra 6	120	5.00	12.14	0	44
- xiphoid cartilage	198	8.25	20.60	0	83
ABNORMALLY CHONDRIFIED					
- cartilaginous sternebra 1	0	0.00	0.00	0	0
- cartilaginous sternebra 2	0	0.00	0.00	0	0
- cartilaginous sternebra 3	2	0.08	0.28	0	1
- cartilaginous sternebra 4	4	0.17	0.48	0	2
- cartilaginous sternebra 5	7	0.29	0.75	0	3
- cartilaginous sternebra 6	3	0.13	0.45	0	2
BRANCHED					
- xiphoid cartilage	494	20.58	19.08	0	69
SPLIT					
- xiphoid cartilage	306	12.75	30.23	0	100
WITH SMALL HOLE					
- xiphoid cartilage	301	12.54	9.83	0	25

**Cartilage Examination of Fetuses (Stage of Development and Variations) Fetus Basis (Absolute Numbers)**

Identification	Total n	Mean %	STDEV	MIN %	MAX %
<b>NUMBER OF FETUSES EXAMINED</b>	2825	117.71	37.42	0	142
<b>ABNORMAL FINDING(S)</b>	30	1.25	1.39	0	4
<b>COSTAL CARTILAGES</b>					
LONG					
- costal cartilage, 11 left	85	3.54	5.68	0	28
- costal cartilage, 11 right	89	3.71	4.58	0	20
INTERRUPTED					
- costal cartilage, 10 left	7	0.29	0.69	0	2
- costal cartilage, 11 left	399	16.63	13.31	0	39
- costal cartilage, 12 left	1	0.04	0.20	0	1
- costal cartilage, 10 right	16	0.67	1.20	0	5
- costal cartilage, 11 right	368	15.33	12.20	0	38
NOT REACHING STERNUM					
- costal cartilage, 7 left	1	0.04	0.20	0	1
- costal cartilage, 7 right	1	0.04	0.20	0	1
INCOMPLETELY CHONDRIFIED					
- costal cartilage, 11 left	3	0.13	0.45	0	2
- costal cartilage, 12 left	6	0.25	0.85	0	3
- costal cartilage, 13 left	11	0.46	1.61	0	7
- costal cartilage, 5 right	1	0.04	0.20	0	1
- costal cartilage, 6 right	1	0.04	0.20	0	1
- costal cartilage, 7 right	1	0.04	0.20	0	1
- costal cartilage, 9 right	1	0.04	0.20	0	1
- costal cartilage, 10 right	1	0.04	0.20	0	1
- costal cartilage, 11 right	3	0.13	0.45	0	2
- costal cartilage, 12 right	5	0.21	0.66	0	3
- costal cartilage, 13 right	13	0.54	1.79	0	8
SHORTENED					
- costal cartilage, 11 left	0	0.00	0.00	0	0
- costal cartilage, 12 left	1	0.04	0.20	0	1
- costal cartilage, 13 left	1	0.04	0.20	0	1
- costal cartilage, 11 right	0	0.00	0.00	0	0
- costal cartilage, 12 right	0	0.00	0.00	0	0
- costal cartilage, 13 right	0	0.00	0.00	0	0



**Cartilage Examination of Fetuses (Stage of Development and Variations) Fetus Basis (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean</b>	<b>STDEV</b>	<b>MIN</b>	<b>MAX</b>
<b>NUMBER OF FETUSES EXAMINED</b>	2825	117.71	37.42	0	142
<b>ABNORMAL FINDING(S)</b>	30	1.25	1.39	0	4
<b><u>COSTAL CARTILAGE(S), LEFT</u></b>					
SUPERNUMERARY, ONE					
- costal cartilage(s), left	35	1.46	1.38	0	5
<b><u>COSTAL CARTILAGE(S), RIGHT</u></b>					
SUPERNUMERARY, ONE					
- costal cartilage(s), right	27	1.13	1.19	0	4

**Cartilage Examination of Fetuses (Stage of Development and Variations) Litters Basis (Absolute Numbers)**

Identification	Total n	Mean %	STDEV	MIN %	MAX %
<b>NUMBER OF LITTERS EXAMINED</b>	481	20.04	6.31	0	25
<b>ABNORMAL FINDING(S)</b>	27	1.13	1.23	0	4
<b><u>CARTILAGINOUS CERVICAL VERTEBRAE</u></b>					
LONG					
- ventral plate, left	11	0.46	0.72	0	2
- ventral plate, right	4	0.17	0.38	0	1
CRANIAL SHIFT TO CERVICAL VERTEBRA 5					
- ventral plate, left	6	0.25	0.53	0	2
- ventral plate, right	3	0.13	0.34	0	1
CAUDAL SHIFT TO CERVICAL VERTEBRA 7					
- ventral plate, left	4	0.17	0.38	0	1
- ventral plate, right	0	0.00	0.00	0	0
<b><u>CARTILAGINOUS STERNUM</u></b>					
INCOMPLETELY CHONDRIFIED					
- cartilaginous sternebra 1	44	1.83	5.77	0	21
- cartilaginous sternebra 2	64	2.67	6.40	0	23
- cartilaginous sternebra 3	12	0.50	1.32	0	5
- cartilaginous sternebra 4	12	0.50	1.69	0	6
- cartilaginous sternebra 5	16	0.67	2.01	0	8
- cartilaginous sternebra 6	61	2.54	5.99	0	19
- xiphoid cartilage	76	3.17	7.26	0	21
ABNORMALLY CHONDRIFIED					
- cartilaginous sternebra 1	0	0.00	0.00	0	0
- cartilaginous sternebra 2	0	0.00	0.00	0	0
- cartilaginous sternebra 3	2	0.08	0.28	0	1
- cartilaginous sternebra 4	4	0.17	0.48	0	2
- cartilaginous sternebra 5	7	0.29	0.75	0	3
- cartilaginous sternebra 6	3	0.13	0.45	0	2
BRANCHED					
- xiphoid cartilage	244	10.17	7.54	0	20
SPLIT					
- xiphoid cartilage	89	3.71	8.51	0	24
WITH SMALL HOLE					
- xiphoid cartilage	175	7.29	5.47	0	13

**Cartilage Examination of Fetuses (Stage of Development and Variations) Litters Basis (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean %</b>	<b>STDEV</b>	<b>MIN %</b>	<b>MAX %</b>
<b>NUMBER OF LITTERS EXAMINED</b>	481	20.04	6.31	0	25
<b>ABNORMAL FINDING(S)</b>	27	1.13	1.23	0	4
<b><u>COSTAL CARTILAGES</u></b>					
LONG					
- costal cartilage, 11 left	0	0.00	0.00	0	0
- costal cartilage, 11 right	0	0.00	0.00	0	0
INTERRUPTED					
- costal cartilage, 10 left	0	0.00	0.00	0	0
- costal cartilage, 11 left	0	0.00	0.00	0	0
- costal cartilage, 10 right	0	0.00	0.00	0	0
- costal cartilage, 11 right	0	0.00	0.00	0	0
INCOMPLETELY CHONDRIFIED					
- costal cartilage, 11 left	1	0.04	0.20	0	1
- costal cartilage, 12 left	3	0.13	0.61	0	3
- costal cartilage, 13 left	4	0.17	0.82	0	4
- costal cartilage, 5 right	1	0.04	0.20	0	1
- costal cartilage, 6 right	1	0.04	0.20	0	1
- costal cartilage, 7 right	1	0.04	0.20	0	1
- costal cartilage, 9 right	1	0.04	0.20	0	1
- costal cartilage, 10 right	1	0.04	0.20	0	1
- costal cartilage, 11 right	1	0.04	0.20	0	1
- costal cartilage, 12 right	2	0.08	0.28	0	1
- costal cartilage, 13 right	5	0.21	0.83	0	4
LONG					
- costal cartilage, 11 left	61	2.54	3.24	0	15
- costal cartilage, 11 right	63	2.63	2.92	0	11

**Cartilage Examination of Fetuses (Stage of Development and Variations) Litters Basis (Absolute Numbers)**

<b>Identification</b>	<b>Total n</b>	<b>Mean %</b>	<b>STDEV</b>	<b>MIN %</b>	<b>MAX %</b>
<b>NUMBER OF LITTERS EXAMINED</b>	481	20.04	6.31	0	25
<b>ABNORMAL FINDING(S)</b>	27	1.13	1.23	0	4
<b><u>COSTAL CARTILAGES</u></b>					
SHORTENED					
- costal cartilage, 11 left	2	0.08	0.41	0	2
- costal cartilage, 12 left	4	0.17	0.64	0	3
- costal cartilage, 13 left	8	0.33	1.43	0	7
- costal cartilage, 11 right	2	0.08	0.41	0	2
- costal cartilage, 12 right	3	0.13	0.61	0	3
- costal cartilage, 13 right	7	0.29	1.43	0	7
INTERRUPTED					
- costal cartilage, 10 left	7	0.29	0.69	0	2
- costal cartilage, 11 left	218	9.08	7.04	0	18
- costal cartilage, 12 left	1	0.04	0.20	0	1
- costal cartilage, 10 right	14	0.58	0.93	0	3
- costal cartilage, 11 right	214	8.92	6.66	0	17
NOT REACHING STERNUM					
- costal cartilage, 7 left	1	0.04	0.20	0	1
- costal cartilage, 7 right	1	0.04	0.20	0	1
<b><u>COSTAL CARTILAGE(S), LEFT</u></b>					
SUPERNUMERARY, ONE					
- costal cartilage(s), left	30	1.25	1.22	0	5
<b><u>COSTAL CARTILAGE(S), RIGHT</u></b>					
SUPERNUMERARY, ONE					
- costal cartilage(s), right	25	1.04	1.12	0	4

ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
RCC Study Number	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
Date	Oct / Nov 2002	Oct / Nov 2002	Nov / Dec 2002	Oct / Dec 2002	Sep / Sep 2003	May / Jun 2003						
Number of litters	24	24	24	25	22	21	140		23.33	1.51	21.00	25
Number of fetuses	153	151	150	155	150	141	900		150.00	4.82	141.00	155
Incidences of fetuses with	N %	N %	N %	N %	N %	N %						
Thymus cranially elongated (bi-/unilateral)	25 16	17 11	21 14	18 12	8 5	15 11	104		17.33	5.75	8	25
Thyroid enlarged	0	0	0	1 1	0	0	1		0.17	0.41	0	1
Localized haemorrhage	11 7	11 7	14 9	10 7	21 14	9 6	76		12.67	4.41	9	21
Liver additional lobe(s) within median cleft	32 21	27 18	31 21	38 25	27 18	34 24	189		31.50	4.23	27	38
Liver median cleft displaced	10 7	9 6	6 4	15 10	3 2	4 3	47		7.83	4.45	3	15
Liver left lateral lobe additional cleft	21 14	5 3	15 10	13 8	29 19	41 29	124		20.67	12.80	5	41
Urinary bladder distended	0	0	0	0	2 1	14 10	16		2.67	5.61	0	14
Umbilical artery left-sided	23 15	16 11	17 11	19 12	19 13	0	94		15.67	8.04	0	23
Innominate artery elongated	0	1 1	0	0	0	0	1		0.17	0.41	0	1
Left subclavian artery origin displaced (arising from descending aorta)	0	3 2	0	0	0	0	3		0.50	1.22	0	3
Lateral (right) displacement of heart and further abnormalities	0	3 2	0	0	0	0	3		0.50	1.22	0	3
Heart misshapen	0	0	0	1 1	1 1	0	2		0.33	0.52	0	1
Small additional lung lobe	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Small lung lobe irregularly in shape	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Lung lobes partially fused	0	0	0	0	0	2 1	2		0.33	0.82	0	2
Thoracic situs inversus and further abnormal findings	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Thoracic and abdominal situs inversus	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Thoracic and abdominal situs inversus with ventricular region of heart divided apex or interventricular septal defect	0	1 1	0	0	0	0	1		0.17	0.41	0	1

ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES (CONT D)

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
RCC Study Number	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
Date	Oct / Nov 2002	Oct / Nov 2002	Nov / Dec 2002	Oct / Dec 2002	Sep / Sep 2003	May / Jun 2003						
Number of litters	24	24	24	25	22	21	140		23.33	1.51	21.00	25
Number of fetuses	153	151	150	155	150	141	900		150.00	4.82	141.00	155
Incidences of fetuses with	N %	N %	N %	N %	N %	N %						
Subcutaneous oedema, head	0	0	0	0	1 1	0	1		0.17	0.41	0	1
Anophthalmia (bi-/unilateral)	0	0	0	0	1 1	1 1	2		0.33	0.52	0	1
Oral passage not patent	0	1 1	0	0	0	0	1		0.17	0.41	0	1
Oesophagus right-sided	0	0	1 1	0	0	1 1	2		0.33	0.52	0	1
Diaphragm locally thinned	0	0	0	0	1 1	0	1		0.17	0.41	0	1
Spleen extra tissue adhesion	0	0	1 1	0	0	0	1		0.17	0.41	0	1
Testis(es) partially descended	0	0	1 1	0	0	0	1		0.17	0.41	0	1
(percentage of male fetuses)	0	0	0	0	4 6	0	4		0.67	1.63	0	4
Testis(es) displaced	0	0	0	0	4 6	0	4		0.67	1.63	0	4
(percentage of male fetuses)	0	1 1	0	2 1	0	0	3		0.50	0.84	0	2
Artifacts	0	1 1	0	2 1	0	0	3		0.50	0.84	0	2
Fetuses with any abnormal findings	92 60	70 46	80 53	86 56	87 58	77 55	492		82.00	7.92	70	92
Litters with any abnormal findings	23 96	22 92	23 96	25 100	21 95	21 100	135		22.50	1.52	21	25

ABNORMAL FINDINGS FROM SKELETAL EXAMINATION OF FETUSES

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
RCC Study Number	1. Study 846184	2. Study 846263	3. Study 846299	4. Study 843083	5. Study 844588	6. Study 848783						
Date	Oct / Nov 2002	Oct / Nov 2002	Nov / Dec 2002	Oct / Dec 2002	Sep / Sep 2003	May / Jun 2003						
Number of litters	24	24	24	25	22	21	140		23.33	1.51	21.00	25
Number of fetuses	136	139	142	142	139	127	825		137.50	5.61	127.00	142
Incidences of fetuses with	N %	N %	N %	N %	N %	N %						
Zygomatic arch fusion (process of maxilla to jugal), uni-/bilateral	1 1	1 1	1 1	5 4	0	0	8		1.33	1.86	0	5
Zygomatic arch incompletely/abnormally ossified, uni-/bilateral	0	1 1	3 2	0	0	0	4		0.67	1.21	0	3
Zygomatic process of squamosa and/or jugal incompletely ossified, uni-/bilateral	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Jugal incompletely ossified, uni-/bilateral	1 1	0	0	0	0	0	1		0.17	0.41	0	1
Sternbrae abnormally ossified	0	1 1	0	0	0	0	1		0.17	0.41	0	1
Os interparietale and/or occipitale fused	0	1 1	0	0	0	0	1		0.17	0.41	0	1

Pelvic girdle uni-bilateral caudal displacement (27 pre-pelvic vertebral arches)	1	1	0	0	0	0	2	1	0	0	5	4	8	1.33	1.97	0	5
Thoracic vertebral body dumbbell-shaped	7	5	4	3	2	1	3	2	0	0	1	1	17	2.83	2.48	0	7
Thoracic vertebral body bipartite ossification	1	1	1	1	0	0	2	1	0	0	0	0	4	0.67	0.82	0	2
Thoracic vertebral body unilaterally ossification	0	0	0	0	0	0	1	1	0	0	0	0	1	0.17	0.41	0	1
Cervical vertebral arch non-ossified	0	0	1	1	0	0	0	0	0	0	0	0	1	0.17	0.41	0	1
Cervical vertebral body dumbbell-shaped	0	0	0	0	1	1	0	0	0	0	0	0	1	0.17	0.41	0	1
Cervical vertebral body non-ossified	0	0	1	1	0	0	0	0	0	0	0	0	1	0.17	0.41	0	1
Wavy rib(s)	6	4	1	1	1	1	0	0	0	4	3	12	12	2.00	2.45	0	6
Fetuses with any abnormal finding	16	12	9	6	8	6	12	8	0	0	9	7	54	9.00	5.29	0	16
Litters with any abnormal finding	10	42	8	33	7	29	11	44	0	0	5	24	41	6.83	3.97	0	11

**ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES**

Parameter	Vehicle Control Groups												Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study 851678		2. Study 848973		3. Study 851839		4. Study 853583		5. Study 851841		6. Study 853594							
RCC Study Number	Nov / Dec 2003		Dec 03 / Jan 04		Mar / Apr 2004		Apr / May 2004		Apr / May 2004		May / Jun 2004							
Number of litters	22		19		21		19		22		20		123		20.50	1.38	19.00	22
Number of fetuses	138		124		121		125		141		117		766		127.67	9.63	117.00	141
Incidences of fetuses with	N	%	N	%	N	%	N	%	N	%	N	%						
Stilus inversus	2	1	0	0	0	0	0	0	0	0	0	0	2		0.33	0.82	0	2
Thymus cranially elongated (bi-unilateral)	19	14	2	2	7	6	6	5	7	5	8	7	49		8.17	5.71	2	19
Diaphragm locally thinned	0	0	0	0	0	0	0	0	0	0	2	2	2		0.33	0.82	0	2
Localized haemorrhage	41	30	12	10	4	3	10	8	8	6	5	4	80		13.33	13.88	4	41
Perimeningeal haemorrhage midbrain region	0	0	0	0	0	0	0	0	0	0	1	1	1		0.17	0.41	0	1
Liver additional lobe(s) within median cleft	31	22	22	18	28	23	11	9	17	12	15	13	124		20.67	7.76	11	31
Liver left lateral lobe additional cleft	16	12	18	15	14	12	9	7	12	9	15	13	84		14.00	3.16	9	18
Liver median cleft displaced	4	3	3	2	0	0	3	2	0	0	1	1	11		1.83	1.72	0	4
Renal pelvis(es) dilated (uni-bilaterally)	1	1	2	2	5	4	1	1	2	1	1	1	12		2.00	1.55	1	5
Stomach, spleen and pancreas malrotated	0	0	0	0	0	0	1	1	0	0	0	0	1		0.17	0.41	0	1
Lung right caudal and accessory lung lobes partially fused	0	0	0	0	0	0	2	2	0	0	0	0	2		0.33	0.82	0	2
Heart apex divided	0	0	0	0	0	0	1	1	0	0	0	0	1		0.17	0.41	0	1
Heart interventricular septal defect	0	0	0	0	0	0	1	1	0	0	1	1	2		0.33	0.52	0	1
Heart and major arterial trunks malrotated	0	0	0	0	0	0	1	1	0	0	0	0	1		0.17	0.41	0	1
Innominate artery shortened	0	0	0	0	0	0	1	1	0	0	0	0	1		0.17	0.41	0	1
Innominate artery elongated	0	0	0	0	0	0	0	0	0	0	1	1	1		0.20	0.45	0	1
Umbilical artery left-sided	14	10	10	8	19	16	29	23	13	9	16	14	101		16.83	6.68	10	29
Origin of left subclavian artery displaced (post-ductal)	0	0	0	0	0	0	0	0	1	1	0	0	1		0.17	0.41	0	1
Oesophagus right-sided	1	1	0	0	0	0	0	0	0	0	0	0	1		0.17	0.41	0	1
Oesophagus behind trachea	1	1	0	0	0	0	0	0	0	0	0	0	1		0.17	0.41	0	1
Brain lateral ventricles dilated (slight)	0	0	3	2	0	0	0	0	1	1	1	1	5		0.83	1.17	0	3
Tracheal cartilages disorganized	0	0	3	2	0	0	0	0	0	0	0	0	3		0.50	1.22	0	3
Testis(es) displacement cranial/medial (uni-/bilaterally) - (% of male fetuses)	0	0	11	18	5	4	5	7	6	4	8	14	35		5.83	3.66	0	11
Urinary bladder distended	0	0	0	0	1	1	0	0	0	0	0	0	1		0.17	0.41	0	1
Multiple malformations	0	0	0	0	1*	1	1*	1	0	0	0	0	0		0.00	0.00	0	0
Less common and/or more severe findings	0	0	7	6	0	0	0	0	0	0	0	0	7		1.17	2.86	0	7
Fetuses with any abnormal findings	89	64	68	55	67	55	63	50	59	42	58	50	404		67.33	11.36	58	89
Litters with any abnormal findings	22	100	19	100	20	95	19	100	20	91	19	95	119		19.83	1.17	19	22

**ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY**

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %						
	1. Study 851678		2. Study 848973		3. Study 851839								4. Study 853583		5. Study 851841		6. Study 853594	
RCC Study Number	Nov / Dec 2003		Dec 03 / Jan 04		Mar / Apr 04		Apr / May 2004		Apr / May 2004		May / Jun 2004							
Number of litters	22		19		21		19		22		20		123		20.50	1.38	19.00	22
Number of fetuses	125		112		106		116		130		111		700		116.67	9.11	106.00	130
Incidences of fetuses with	N	%	N	%	N	%	N	%	N	%	N	%						
Pelvic girdle uni-bilateral caudal displacement (27 pre-pelvic vertebral arches)	2	2	0	0	0	0	2	2	0	0	4	4	8		1.33	1.63	0	4
Sternebrae 3-5 abnormally shaped, 4 with bipartite ossification	0	0	1	1	0	0	0	0	0	0	0	0	1		0.17	0.41	0	1
Sternebrae 4 and 5 offset	0	0	0	0	1	1	0	0	0	0	0	0	1		0.17	0.41	0	1
Sternebra 5 bipartite	0	0	0	0	0	0	0	0	1	1	0	0	1		0.17	0.41	0	1
Costal cartilages 4 and 5 offset	0	0	0	0	0	0	1	1	0	0	0	0	1		0.17	0.41	0	1
Zygomatic arch fusion (process of maxilla to jugal), left	0	0	0	0	0	0	0	0	2	2	1	1	3		0.50	0.84	0	2
Thoracic vertebral body 12 dumbbell-shaped	0	0	0	0	0	0	0	0	0	0	1	1	1		0.17	0.41	0	1
Fetuses with any abnormal finding	2	2	1	1	1	1	3	3	3	2	6	5	16		2.67	1.86	1	6

Litters with any abnormal finding	2	9	1	5	1	5	3	16	2	9	5	25	14	2.33	1.51	1	5
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**ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES**

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762	2. Study 858936		3. Study								
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	151		146				297		148.50	3.54	146.00	151
Incidences of fetuses with	N	%	N	%	N	%						
Situs inversus (partial/complete)	1	1	0				1		0.5	0.71	0	1
Cleft palate	0		0				0		0	0.00	0	0
Localized haemorrhage	13	9	8	5			21		10.5	3.54	8	13
Perimeningeal haemorrhage	5	3	0				5		2.5	3.54	0	5
Eye, lenticular lesion	0		0				0		0	0.00	0	0
Lens, abnormal texture areas	2	1	0				2		1	1.41	0	2
Olfactory lobes-ventricles dilated, uni-bilateral	1	1	0				1		0.5	0.71	0	1
Thymus elongated (uni-bilateral)	5	3	8	5			13		6.5	2.12	5	8
Diaphragm locally thinned	0		0				0		0	0.00	0	0
Diaphragmatic hernia	0		0				0		0	0.00	0	0
Brain, cerebral and midbrain region perimeningeal space increased	0		0				0		0	0.00	0	0
Intra-abdominal haemorrhage	0		0				0		0	0.00	0	0
Liver additional lobe(s) within median cleft	9	6	14	10			23		11.5	3.54	9	14
Liver lobe(s) abnormally shaped	0		7	5			7		3.5	4.95	0	7
Liver left lateral lobe additional cleft	0		0				0		0	0.00	0	0
Liver left lateral lobe protruding beneath diaphragm (resultant compression of left lung lobe)	0		0				0		0	0.00	0	0
Liver median cleft displaced	0		0				0		0	0.00	0	0
Liver papillary/caudal process misshapen	0		0				0		0	0.00	0	0

**ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES (CONT D)**

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762	2. Study 858936		3. Study								
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	151		146				297		148.50	3.54	146.00	151
Incidences of fetuses with	N	%	N	%	N	%						
Renal pelvis(es) dilated (uni-bilaterally)	0		0				0		0	0.00	0	0
Pancreas adhesion to lung lobe	0		0				0		0	0.00	0	0
Stomach, spleen and pancreas malrotated	0		0				0		0	0.00	0	0
Spleen displaced and misshapen	0		0				0		0	0.00	0	0
Lung right caudal and accessory lung lobes partially fused	0		2	1			2		1	1.41	0	2
Right lung enlarged	0		0				0		0	0.00	0	0
Heart and right lung lobes displaced	0		0				0		0	0.00	0	0
Heart apex divided	0		0				0		0	0.00	0	0
Heart and major arterial trunks malrotated	0		0				0		0	0.00	0	0
Innominate artery shortened	0		0				0		0	0.00	0	0
Innominate artery elongated	0		0				0		0	0.00	0	0
Umbilical artery left-sided	21	14	23	16			44		22	1.41	21	23
Origin of left subclavian artery displaced (post-ductal)	0		0				0		0	0.00	0	0
Azygos vein (bilateral/right-sided)	0		0				0		0	0.00	0	0
Oesophagus right-sided	0		0				0		0	0.00	0	0
Oesophagus behind trachea	0		0				0		0	0.00	0	0

**ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES (CONT D)**

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762	2. Study 858936		3. Study								
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	151		146				297		148.50	3.54	146.00	151
Incidences of fetuses with	N	%	N	%	N	%						
Brain lateral ventricles dilated (slight)	0		0				0		0	0.00	0	0
Tracheal cartilages disorganized	0		0				0		0	0.00	0	0
Testis(es) displacement cranial/medial (uni-/bilaterally) - (% of male fetuses)	5	3	6	4			11		5.5	0.71	5	6
Kidney misshapen	0		0				0		0	0.00	0	0
Urinary bladder distended	0		0				0		0	0.00	0	0

Fetus with other findings	0		1	1					1		0.5	0.71	0	1
Multiple malformations	0		0						0		0	0.00	0	0
Less common and/or more severe findings	0		0						0		0	0.00	0	0
Fetuses with any abnormal findings	54	36	58	40					112		56	2.83	54	58
Litters with any abnormal findings	21	95	21	95					42		21	0.00	21	21

ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762		2. Study 858936		3. Study							
RCC Study Number	1. Study A16762		2. Study 858936		3. Study							
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	133		136				269		134.50	2.12	133.00	136
Incidences of fetuses with	N	%	N	%	N	%						
<b>Bones</b>												
Pelvic girdle uni-bilateral caudal/cranial displacement (27 pre-pelvic vertebral arches)	5	4	1	1			6		3	2.83	1	5
Mandibles and lower incisors fused	0		0				0		0	0.00	0	0
Zygomatic arch fusion	13	10	9	7			22		11	2.83	9	13
Cervical vertebral fused to occipital	0		0				0		0	0.00	0	0
Vertebral arch of cervical vertebra 1 absent	0		0				0		0	0.00	0	0
Thoracic vertebral body dumbbell-shaped	2	2	0				2		1	1.41	0	2
Thoracic vertebral body bipartite ossification	0		0				0		0	0.00	0	0
Thoracic vertebral arch 13 reduced in size	0		0				0		0	0.00	0	0
Thoracic vertebral arch 13 fused with lumbar vertebral arch 1	0		0				0		0	0.00	0	0
Lumbar vertebral body 1 absent	0		0				0		0	0.00	0	0
Lumbar vertebral body dumbbell-shaped	1	1	0				1		0.5	0.71	0	1
Lumbar vertebral body bipartite ossification	0		0				0		0	0.00	0	0
Sternebrae fused	0		0				0		0	0.00	0	0
Sternebra bipartite ossification	0		0				0		0	0.00	0	0
Sternebra offset	1	1	0				1		0.5	0.71	0	1

ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY (CONT'D)

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762		2. Study 858936		3. Study							
RCC Study Number	1. Study A16762		2. Study 858936		3. Study							
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	133		136				269		134.50	2.12	133.00	136
Incidences of fetuses with	N	%	N	%	N	%						
<b>Bones</b>												
Cervical rib rudimentary	0		2	1			2		1	1.41	0	2
Ribs branched	0		0				0		0	0.00	0	0
Ribs short	0		0				0		0	0.00	0	0
Ribs wavy	0		0				0		0	0.00	0	0
Scapula misshapen (bent)	0		0				0		0	0.00	0	0
Humerus misshapen (bent)	0		0				0		0	0.00	0	0
<b>Cartilage</b>												
Additional ventral plate	1	1	3	2			4		2	1.41	1	3
Scapula cartilage bent	0		0				0		0	0.00	0	0
Cartilaginous cervical rib	0		0				0		0	0.00	0	0
Cartilaginous cervical centra split	0		0				0		0	0.00	0	0
Cartilaginous cervical centra fused	0		0				0		0	0.00	0	0
Cartilaginous thoracic centram split / misshapen / absent	0		0				0		0	0.00	0	0
Thoracic vertebral arch/body split	0		0				0		0	0.00	0	0

ABNORMAL FINDINGS FROM SKELETAL AND CARTILAGE EXAMINATION OF FETUSES - SUMMARY (CONT'D)

Parameter	Vehicle Control Groups						Total n	Total %	Mean %	STDEV %	MIN %	MAX %
	1. Study A16762		2. Study 858936		3. Study							
RCC Study Number	1. Study A16762		2. Study 858936		3. Study							
Date	Sep / Oct 2005		Feb / Mar 2005									
Number of litters	22		22				44		22.00	0.00	22.00	22
Number of fetuses	133		136				269		134.50	2.12	133.00	136
Incidences of fetuses with	N	%	N	%	N	%						
<b>Cartilage</b>												
Cartilaginous vertebral body split / dumbbell-shaped	0		0				0		0	0.00	0	0
Coastal cartilage fused	0		0				0		0	0.00	0	0
Coastal cartilage short	0		0				0		0	0.00	0	0
Coastal cartilage interrupted	0		0				0		0	0.00	0	0
Coastal cartilage offset	1	1	0				1		0.5	0.71	0	1
Coastal cartilages branched	0		0				0		0	0.00	0	0
Cartilage between sternbrae split	0		0				0		0	0.00	0	0
Lumbar vertebral body dumbbell-shaped	0		0				0		0	0.00	0	0
Fetuses with multiple findings	0		0				0		0	0.00	0	0
Fetuses with any abnormal finding	21	16	14	10			35		17.5	4.95	14	21





Parameter	Vehicle Control Groups			Vehicle Control Groups			Vehicle Control Groups			Total n	Total %	Mean %	STDEV %	MIN %	MAX %									
	1. Study	2. Study	3. Study	4. Study	5. Study	6. Study	7. Study	8. Study	9. Study															
	854669	854665	854673	857441	858873	A16481	858651	854363	857932															
Date	Aug / Sep 2004	Sep / Oct 2004	Oct / Nov 2004	Jan / Feb 2005	Apr / May 2005	Jun / Jul 2005	Apr / May 2005	Oct / Nov 2004	Feb / Mar 2005															
Number of litters	22	22	21	21	21	22	21	22	21	193		21.4	0.5	21	22									
Number of fetuses	129	129	134	125	129	129	114	132	124	1145		127.2	5.8	114	134									
Incidence of fetuses with	N	%	N	%	N	%	N	%	N	%														
<b>Bones</b>																								
Pelvic girdle uni-bilateral caudal displacement (27 pre-pelvic vertebral arches)	4	3	5	4	8	6	1	1	3	2	5	4	2	2	1	1	3	2	32		3.6	2.2	1	8
Mandibles and lower incisors fused	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Zygomatic arch fusion	1	1	1	1	0	0	12	10	2	2	10	8	4	4	0	0	11	9	41		4.6	5.0	0	12
Cervical vertebral fused to occipital	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	3		0.3	0.5	0	1
Vertebral arch of cervical vertebra 1 absent	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Thoracic vertebral body dumbbell-shaped	2	2	1	1	0	0	1	1	1	1	1	1	0	0	1	1	0	0	7		0.8	0.7	0	2
Thoracic vertebral body bipartite ossification	0	0	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	3		0.3	0.7	0	2
Thoracic vertebral arch 13 reduced in size	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Thoracic vertebral arch 13 fused with lumbar vertebral arch 1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Lumbar vertebral body 1 absent	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Lumbar vertebral body bipartite ossification	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Sternbrae fused	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Sternbrae bipartite ossification	0	0	0	0	3	2	2	2	0	0	0	0	0	0	0	0	0	0	5		0.6	1.1	0	3
Sternbrae offset	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	2		0.2	0.7	0	2
Cervical rib rudimentary	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Ribs branched	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Ribs short	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Ribs wavy	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	2		0.2	0.7	0	2
Scapula misshapen (bent)	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1		0.1	0.3	0	1
Humerus misshapen (bent)	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1		0.1	0.3	0	1

**ABNORMAL FINDINGS AND VARIATIONS FROM SKELETAL AND CARTILAGE EXAMINATIONS OF FETUSES - SUMMARY (CONT'D)**

Parameter	Vehicle Control Groups			Vehicle Control Groups			Vehicle Control Groups			Total n	Total %	Mean %	STDEV %	MIN %	MAX %									
	1. Study	2. Study	3. Study	4. Study	5. Study	6. Study	7. Study	8. Study	9. Study															
	854669	854665	854673	857441	858873	A16481	858651	854363	857932															
Date	Aug / Sep 2004	Sep / Oct 2004	Oct / Nov 2004	Jan / Feb 2005	Apr / May 2005	Jun / Jul 2005	Apr / May 2005	Oct / Nov 2004	Feb / Mar 2005															
Number of litters	22	22	21	21	21	22	21	22	21	193		21.4	0.5	21	22									
Number of fetuses	129	129	134	125	129	129	114	132	124	1145		127.2	5.8	114	134									
Incidence of fetuses with	N	%	N	%	N	%	N	%	N	%														
<b>Cartilage</b>																								
Additional ventral plate	0	0	1	1	0	0	0	0	3	3	0	0	0	4	4	0.4	1.0	0	3					
Scapula cartilage bent	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Cartilaginous cervical rib	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Cartilaginous cervical centra split	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Cartilaginous cervical centra fused	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2	0.2	0.7	0	2					
Cartilaginous thoracic centrum split / misshapen / absent	0	0	3	2	0	0	0	0	0	0	0	0	0	3	3	0.3	1.0	0	3					
Thoracic vertebral arch/body split	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Cartilaginous vertebral body split / dumbbell-shaped	0	0	2	2	0	0	0	0	0	0	0	0	0	2	2	0.2	0.7	0	2					
Coastal cartilage fused	1	1	2	2	1	1	0	0	0	0	0	0	0	4	4	0.4	0.7	0	2					
Coastal cartilage short	0	0	2	2	1	1	0	0	0	0	0	0	0	3	3	0.3	0.7	0	2					
Coastal cartilage interrupted	0	0	1	1	0	0	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Coastal cartilage offset	0	0	1	1	2	2	0	0	0	0	0	0	0	3	3	0.3	0.7	0	2					
Costal cartilages branched	0	0	0	0	1	1	0	0	0	0	0	0	0	1	1	0.1	0.3	0	1					
Cartilage between sternbrae split	0	0	0	0	0	2	2	0	0	0	0	0	0	2	2	0.2	0.7	0	2					
Lumbar vertebral body dumbbell-shaped	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0.1	0.3	0	1					
Fetuses with multiple findings	0	0	0	0	3	2	0	0	0	0	0	0	0	3	3	0.3	1.0	0	3					
Fetuses with any abnormal finding	6	5	9	7	14	10	16	13	12	9	15	12	10	9	2	2	14	11	98		10.9	4.6	2	16
Litters with any abnormal finding	4	18	6	27	8	38	11	52	10	48	7	32	7	33	2	9	10	48	65		7.2	2.9	2	11

\* = Litter 2 - fetus 18, litter 5 - fetuses 60 and 68.

**ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES**

Parameter	Vehicle Control Groups			Vehicle Control Groups			Vehicle Control Groups			Total n	Total %	Mean %	STDEV %	MIN %	MAX %									
	1. Study	2. Study	3. Study	4. Study	5. Study	6. Study	7. Study	8. Study	9. Study															
	851168	851552	851568	855290	855545	856130	858661	842238	858371															
Date	Feb 04 / Mar 04	Apr 04 / May 04	Jan 04 / Feb 04	Jul 04 / Aug 04	Jul 04 / Aug 04	Oct 04 / Nov 04	Mar 05 / Apr 05	Apr 02 / May 02	Aug 05 / Sep 05	Jun 04 / Jul 04	May 06 / Jun 06													
Number of litters	22	21	21	22	22	21	22	24	22	21	21	239		21.73	0.90	21	24							
Number of fetuses	154	131	142	147	150	132	135	151	144	142	145	1573		143.00	7.66	131	154							
Incidence of fetuses with	N	%	N	%	N	%	N	%	N	%	N	%												
Haemorrhage cerebral perimeningeal or cerebral aqueduct (Brain)	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	1	2		0.18	0.40	0	1	
Eye haemorrhage (unilateral)	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	3		0.27	0.65	0	2	
Subcutaneous haemorrhage (head, lower jaw, nasal/frontal and cranial region)	4	3	7	5	0	0	0	2	1	0	0	18	13	0	0	41	28	97		8.82	13.58	0	41	
Internal hydrocephali	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1		0.09	0.30	0	1	
Palatine rugae - none present	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1		0.09	0.30	0	1	
Thymus elongated (bi-unilateral)	4	3	10	8	2	1	9	6	2	1	8	6	8	6	19	13	12	8	91		6.27	5.04	2	19

Localized haemorrhage	4	3	0	0	2	1	22	15	0	0	22	17	0	0	14	9	0	0	8	6	0	0	72	6.55	8.81	0	22
Liver lobe(s) misshapen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.09	0.30	0	1
Liver additional lobe(s) within median cleft	31	20	12	9	32	23	18	12	15	10	9	7	11	8	23	15	20	14	17	12	3	2	191	17.36	8.89	3	32
Liver left lateral lobe additional cleft	29	19	9	7	34	24	5	3	0	0	12	9	7	5	5	3	0	0	4	3	1	1	106	9.64	11.47	0	34
Liver left lateral lobe bipartite	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Liver lateral lobe, haemorrhage	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Liver median cleft displaced	1	1	0	0	2	1	0	0	4	3	0	0	0	0	0	0	0	0	1	1	0	0	8	0.73	1.27	0	4
Liver, papillary process reduced/misshapen (twisted)	0	0	1	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0.18	0.40	0	1
Liver lobes adhered	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Absence of spleen	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Falciform ligament of liver absent	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Renal pelvis(es) dilated (uni-/bilaterally)	4	3	0	0	0	0	0	0	1	1	0	0	0	0	7	5	0	0	0	0	0	0	12	1.09	2.30	0	7

2 Fetus 12 of litter 2 from the control group was not investigated due to accidental loss.

ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES (CONT D)

Parameter	Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				12.	Total n	Total %	Mean %	STDEV %	MIN %	MAX %				
	1. Study 851168	2. Study 851552	3. Study 851568	4. Study 855290	5. Study 855545	6. Study 856130	7. Study 858661	8. Study 842238	9. Study 858371	10. Study 854154	11. STUDY A43165	12.															
RCC Study Number	Feb 04 / Mar 04	Apr 04 / May 04	Jan 04 / Feb 04	Jul 04 / Aug 04	Jul 04 / Aug 04	Oct 04 / Nov 04	Mar 05 / Apr 05	Apr 02 / May 02	Aug 05 / Sep 05	Jun 04 / Jul 04	May 06 / Jun 06																
Date	22	21	21	22	22	21	22	24	22	21	21	239	21.73	0.90	21	24											
Number of litters	154	131	142	147	150	132	135	151	144	142	145	1573	143.00	7.66	131	154											
Number of fetuses	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %																
Incidence of fetuses with																											
Lung lobe(s) misshapen	0	0	0	0	0	0	0	0	0	2	1	2	0.18	0.60	0	2											
Lung lobes partially fused	0	0	0	0	0	1	1	0	0	1	1	3	0.27	0.47	0	1											
Lung right caudal and accessory lobes partially fused	0	0	0	0	0	0	0	0	0	0	0	4	0.36	0.92	0	3											
Lung right caudal lobe enlarged (elongated)	0	0	1	1	0	0	0	0	0	0	0	1	0.09	0.30	0	1											
Azygos vein bilateral, yellow/brown semi-solid deposit in thoracic cavity	0	0	1	1	0	0	0	0	0	0	0	1	0.09	0.30	0	1											
Innominate artery shortened	0	0	1	1	0	0	0	0	0	0	0	1	0.09	0.30	0	1											
Heart atrium enlarged (bi-/unilateral)	0	0	0	0	0	0	3	2	0	0	0	3	0.27	0.90	0	3											
Umbilical artery left-sided	19	12	11	8	22	15	16	11	10	7	15	11	13	10	27	18	18	13	12	8	15	11	178	16.18	5.08	10	27
Right subclavian artery retro-oesophageal	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1
Left subclavian artery origin displaced	0	0	0	0	0	0	0	0	0	0	2	2	4	0.36	0.81	0	2										
Brain ventricles dilated	1	1	0	0	0	0	3	2	0	0	0	4	0.36	0.92	0	3											
Diaphragm tendinous region locally thinned	1	1	0	0	0	3	2	0	0	3	2	0	1	1	3	2	0	0	6	4		17	1.55	1.97	0	6	
Diaphragm tendinous region locally thinned (severe)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.09	0.30	0	1
Oesophagus displaced	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0.09	0.30	0	1
Tracheal cartilages disorganized	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	0.00	0	0
Omphalocele	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0.09	0.30	0	1
Testis(es) displacement cranial/medial (uni-/bilaterally) - (% of male fetuses)	8	12	6	5	9	15	2	3	2	3	3	5	4	3	1	1	2	1	3	4	2	1	42	3.82	2.68	1	9
Urinary bladder distended	4	3	0	0	2	1	0	0	4	3	0	0	0	0	0	0	0	0	5	4	0	0	15	1.36	2.01	0	5
Situs inversus, thorax and/or abdomen	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	2	0.18	0.40	0	1

ABNORMAL FINDINGS FROM VISCERAL EXAMINATION OF FETUSES (CONT D)

Parameter	Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				12.	Total n	Total %	Mean %	STDEV %	MIN %	MAX %				
	1. Study 851168	2. Study 851552	3. Study 851568	4. Study 855290	5. Study 855545	6. Study 856130	7. Study 858661	8. Study 842238	9. Study 858371	10. Study 854154	11. STUDY A43165	12.															
RCC Study Number	Feb 04 / Mar 04	Apr 04 / May 04	Jan 04 / Feb 04	Jul 04 / Aug 04	Jul 04 / Aug 04	Oct 04 / Nov 04	Mar 05 / Apr 05	Apr 02 / May 02	Aug 05 / Sep 05	Jun 04 / Jul 04	May 06 / Jun 06																
Date	22	21	21	22	22	21	22	24	22	21	21	239	21.73	0.90	21	24											
Number of litters	154	131	142	147	150	132	135	151	144	142	145	1573	143.00	7.66	131	154											
Number of fetuses	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %																
Incidence of fetuses with																											
Tail hooked at distal extremity	0	0	1	1	0	0	0	0	0	0	0	1	0.09	0.30	0	1											
Subcutaneous haemorrhage, hind limb/tail	0	0	0	0	0	0	0	0	0	0	0	3	0.27	0.65	0	2											
Internal haemorrhage	0	0	0	0	0	0	1	0	0	0	0	1	0.09	0.30	0	1											
Other abnormalities	0	0	0	0	0	0	0	0	0	1	1	2	0.18	0.40	0	1											
Multiple malformations	1	1	0	0	0	0	0	0	0	1	1	4	0.36	0.67	0	2											
Fetuses with any abnormal findings	84	55	48	37	84	59	60	41	44	29	58	44	52	39	69	46	80	56	52	37	52	37	683	62.09	14.77	44	84
Litters with any abnormal findings	22	100	19	90	21	100	19	86	19	86	21	100	21	95	23	96	21	95	21	100	20	95	227	20.64	1.29	19	23

2 Fetus 12 of litter 2 from the control group was not in [1] Fetus 38 of litter 4 and fetus 950 of litter 21

ABNORMAL FINDINGS AND VARIATIONS FROM SKELETAL EXAMINATIONS OF FETUSES - SUMMARY

Parameter	Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				Vehicle Control Groups				12.	Total n	Total %	Mean %	STDEV %	MIN %	MAX %				
	1. Study 851168	2. Study 851552	3. Study 851568	4. Study 855290	5. Study 855545	6. Study 856130	7. Study 858661	8. Study 842238	9. Study 858371	10. Study 854154	11. Study A43165	12.															
RCC Study Number	Feb 04 / Mar 04	Apr 04 / May 04	Jan 04 / Feb 04	Jul 04 / Aug 04	Jul 04 / Aug 04	Oct 04 / Nov 04	Mar 05 / Apr 05	Apr 02 / May 02	Aug 05 / Sep 05	Jun 04 / Jul 04	May 06 / Jun 06																
Date	22	21	21	22	22	21	22	24	22	21	21	237	21.55	1.04	20	24											
Number of litters	146	123	131	131	136	124	126	144	132	119	132	1444	131.27	8.38	119	146											
Number of fetuses	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %	N %																
Incidence of fetuses with																											
Rudimentary cervical rib, uni-bilateral	6	4	0	0	5	4	3	2	5	4	2	2	3	2	0	0	1	1	5	4	2	2	32	2.91	2.12	0	6
Ribs wavy uni-bilateral	1	1	1	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	4	0.36	0.50	0	1
Rib(s) branched	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0.09	0.30	0	1

