

**TDMS No.** 20009 - 03  
**Test Type:** CHRONIC  
**Route:** DOSED WATER  
**Species/Strain:** RATS/F 344/N

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**

beta-Picoline  
**CAS Number:** 108-99-6

**Date Report Requested:** 05/27/2011  
**Time Report Requested:** 10:09:55  
**First Dose M/F:** 11/18/04 / 11/19/04  
**Lab:** BAT

F2\_R2

**C Number:** C20009  
**Lock Date:** 06/05/2008  
**Cage Range:** ALL  
**Date Range:** ALL  
**Reasons For Removal:** ALL  
**Removal Date Range:** ALL  
**Treatment Groups:** Include ALL  
**Study Gender:** Both  
**TDMSE Version:** 2.4.1.0\_004  
**PWG Approval Date:** 06/29/2010

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<b>FISCHER 344 RATS MALE</b>	<b>0 mg/l</b>	<b>156.25 mg/l</b>	<b>312.5 mg/l</b>	<b>625 mg/l</b>
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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Early Deaths</b>				
<b>Moribund Sacrifice</b>	<b>9</b>	<b>12</b>	<b>15</b>	<b>23</b>
<b>Natural Death</b>	<b>8</b>	<b>7</b>	<b>3</b>	<b>3</b>
<b>Survivors</b>				
<b>Terminal Sacrifice</b>	<b>33</b>	<b>31</b>	<b>32</b>	<b>24</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

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**ALIMENTARY SYSTEM**

Esophagus	(50)	(50)	(50)	(50)
Hyperplasia, Squamous		1 (2%)		
Inflammation, Suppurative	1 (2%)			
Intestine Large, Cecum	(45)	(47)	(48)	(48)
Inflammation, Chronic Active				1 (2%)
Necrosis	1 (2%)			
Intestine Large, Colon	(47)	(49)	(49)	(49)
Parasite Metazoan	3 (6%)	4 (8%)	7 (14%)	1 (2%)
Intestine Large, Rectum	(47)	(49)	(49)	(50)
Infiltration Cellular, Mixed Cell		1 (2%)		
Parasite Metazoan	2 (4%)	5 (10%)	3 (6%)	5 (10%)
Intestine Small, Duodenum	(48)	(49)	(49)	(50)
Intestine Small, Ileum	(46)	(47)	(48)	(49)
Inflammation, Chronic Active		1 (2%)		
Intestine Small, Jejunum	(45)	(47)	(48)	(49)
Inflammation, Chronic Active	1 (2%)			
Liver	(50)	(50)	(50)	(50)
Angiectasis	1 (2%)		1 (2%)	
Atrophy			1 (2%)	
Basophilic Focus	15 (30%)	14 (28%)	16 (32%)	10 (20%)
Clear Cell Focus	13 (26%)	23 (46%)	20 (40%)	15 (30%)
Congestion				1 (2%)
Degeneration, Cystic	3 (6%)	6 (12%)	7 (14%)	2 (4%)
Eosinophilic Focus	7 (14%)	1 (2%)	2 (4%)	5 (10%)

a - Number of animals examined microscopically at site and number of animals with lesion

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FISCHER 344 RATS MALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Fatty Change	7 (14%)	6 (12%)	7 (14%)	9 (18%)
Fibrosis			1 (2%)	
Hepatodiaphragmatic Nodule	4 (8%)	3 (6%)	2 (4%)	6 (12%)
Inflammation, Chronic Active		3 (6%)	3 (6%)	1 (2%)
Mixed Cell Focus	6 (12%)	3 (6%)	6 (12%)	3 (6%)
Necrosis	2 (4%)	3 (6%)		2 (4%)
Vacuolization Cytoplasmic	15 (30%)	12 (24%)	12 (24%)	16 (32%)
Bile Duct, Hyperplasia	40 (80%)	36 (72%)	44 (88%)	42 (84%)
Centrilobular, Atrophy		1 (2%)		
Centrilobular, Necrosis	1 (2%)		1 (2%)	
Periportal, Fibrosis		1 (2%)		
Periportal, Inflammation	1 (2%)		1 (2%)	
Vein, Dilatation		1 (2%)		
Mesentery	(4)	(8)	(4)	(6)
Fat, Necrosis	1 (25%)	6 (75%)	3 (75%)	5 (83%)
Pancreas	(49)	(50)	(50)	(48)
Cyst	1 (2%)		2 (4%)	
Hyperplasia	2 (4%)			1 (2%)
Infiltration Cellular		1 (2%)	1 (2%)	
Lipomatosis				1 (2%)
Acinus, Atrophy	18 (37%)	31 (62%)	31 (62%)	25 (52%)
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy			1 (2%)	
Infiltration Cellular		1 (2%)		
Duct, Inflammation		1 (2%)		
Stomach, Forestomach	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)		
Edema			1 (2%)	
Erosion	1 (2%)			
Fibrosis	1 (2%)	6 (12%)	2 (4%)	1 (2%)
Hyperplasia, Squamous	15 (30%)	18 (36%)	7 (14%)	17 (34%)
Inflammation		1 (2%)		2 (4%)
Ulcer	2 (4%)	5 (10%)	2 (4%)	2 (4%)
Stomach, Glandular	(50)	(50)	(50)	(50)
Angiectasis		1 (2%)		
Erosion	1 (2%)	3 (6%)		

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FISCHER 344 RATS MALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Fibrosis	1 (2%)			
Hyperplasia	1 (2%)			
Inflammation, Chronic Active	4 (8%)	6 (12%)	4 (8%)	3 (6%)
Metaplasia, Squamous		1 (2%)		
Ulcer				2 (4%)
Tongue	(0)	(0)	(2)	(1)
<b>CARDIOVASCULAR SYSTEM</b>				
Blood Vessel	(50)	(50)	(50)	(50)
Aorta, Mineralization		1 (2%)		
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	49 (98%)	50 (100%)	50 (100%)	49 (98%)
Mineralization		1 (2%)		
Atrium, Thrombosis	5 (10%)	5 (10%)		
Epicardium, Inflammation, Chronic Active				1 (2%)
Valve, Inflammation, Chronic Active		1 (2%)		
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	2 (4%)			2 (4%)
Hyperplasia	20 (40%)	31 (62%)	27 (54%)	21 (42%)
Necrosis	1 (2%)		1 (2%)	
Vacuolization Cytoplasmic	3 (6%)			1 (2%)
Adrenal Medulla	(50)	(49)	(49)	(50)
Hyperplasia	12 (24%)	18 (37%)	13 (27%)	7 (14%)
Islets, Pancreatic	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Parathyroid Gland	(50)	(47)	(48)	(48)
Hyperplasia	1 (2%)			
Pituitary Gland	(50)	(49)	(50)	(49)
Cyst	2 (4%)		2 (4%)	
Metaplasia, Osseous	1 (2%)			1 (2%)
Necrosis				1 (2%)

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Pars Distalis, Hyperplasia	16 (32%)	11 (22%)	19 (38%)	12 (24%)
Pars Intermedia, Hyperplasia			1 (2%)	
Pars Nervosa, Hyperplasia			1 (2%)	
Thyroid Gland	(50)	(50)	(50)	(50)
Congestion	1 (2%)			
C-cell, Hyperplasia	6 (12%)	4 (8%)	11 (22%)	7 (14%)
Follicle, Cyst		1 (2%)		1 (2%)
Follicular Cell, Hyperplasia		1 (2%)	1 (2%)	
<b>GENERAL BODY SYSTEM</b>				
Peritoneum	(2)	(1)	(1)	(2)
Inflammation, Chronic Active				1 (50%)
<b>GENITAL SYSTEM</b>				
Epididymis	(50)	(50)	(50)	(50)
Degeneration, Fatty		1 (2%)		
Inflammation, Chronic Active			2 (4%)	2 (4%)
Preputial Gland	(50)	(50)	(50)	(50)
Cyst		1 (2%)	1 (2%)	
Hyperplasia, Squamous		1 (2%)		
Inflammation	15 (30%)	10 (20%)	10 (20%)	13 (26%)
Prostate	(49)	(50)	(50)	(50)
Hyperplasia	1 (2%)			1 (2%)
Hyperplasia, Adenomatous	1 (2%)			1 (2%)
Inflammation	31 (63%)	45 (90%)	45 (90%)	35 (70%)
Seminal Vesicle	(50)	(50)	(50)	(50)
Dilatation		1 (2%)		
Inflammation			2 (4%)	1 (2%)
Testes	(50)	(50)	(50)	(50)
Atrophy	3 (6%)	9 (18%)	5 (10%)	3 (6%)
Inflammation, Chronic Active	1 (2%)			
Interstitial Cell, Hyperplasia	12 (24%)	18 (36%)	17 (34%)	13 (26%)

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**HEMATOPOIETIC SYSTEM**

Bone Marrow	(50)	(50)	(50)	(50)
Lymph Node	(9)	(11)	(11)	(8)
Congestion	1 (11%)			
Hyperplasia, Lymphoid	1 (11%)			
Deep Cervical, Ectasia				1 (13%)
Deep Cervical, Hemorrhage		1 (9%)		
Deep Cervical, Infiltration Cellular				1 (13%)
Mediastinal, Congestion	1 (11%)			
Mediastinal, Ectasia	1 (11%)	1 (9%)	4 (36%)	3 (38%)
Mediastinal, Hemorrhage			1 (9%)	
Mediastinal, Hyperplasia	1 (11%)	1 (9%)	1 (9%)	
Mediastinal, Infiltration Cellular, Mixed Cell		1 (9%)		
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Congestion	1 (2%)			
Ectasia		2 (4%)	2 (4%)	
Inflammation, Granulomatous			1 (2%)	
Spleen	(50)	(50)	(50)	(50)
Hematopoietic Cell Proliferation	1 (2%)			
Hyperplasia, Lymphoid		1 (2%)		
Inflammation, Granulomatous			1 (2%)	
Necrosis				1 (2%)
Capsule, Hemorrhage		1 (2%)		
Capsule, Hyperplasia				1 (2%)
Lymphoid Follicle, Depletion Cellular		1 (2%)		
Lymphoid Follicle, Hyperplasia	1 (2%)			
Thymus	(49)	(49)	(45)	(50)

**INTEGUMENTARY SYSTEM**

Mammary Gland	(50)	(49)	(50)	(50)
Galactocele	12 (24%)	7 (14%)	9 (18%)	12 (24%)
Hyperplasia	3 (6%)	6 (12%)		5 (10%)

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Inflammation		1 (2%)		
Skin	(50)	(50)	(50)	(50)
Cyst Epithelial Inclusion	1 (2%)			
Hyperplasia, Squamous	2 (4%)			
Inflammation, Suppurative	1 (2%)			
Inflammation, Chronic Active	1 (2%)	1 (2%)		
Subcutaneous Tissue, Infiltration Cellular, Mixed Cell		1 (2%)		
Subcutaneous Tissue, Inflammation, Chronic Active				1 (2%)
<b>MUSCULOSKELETAL SYSTEM</b>				
Bone	(50)	(50)	(50)	(50)
Hyperostosis	1 (2%)			1 (2%)
Inflammation, Chronic Active		1 (2%)		
Skeletal Muscle	(0)	(0)	(0)	(1)
<b>NERVOUS SYSTEM</b>				
Brain	(50)	(50)	(50)	(50)
Compression	5 (10%)	9 (18%)	8 (16%)	9 (18%)
Hemorrhage	1 (2%)		2 (4%)	3 (6%)
<b>RESPIRATORY SYSTEM</b>				
Lung	(50)	(50)	(50)	(50)
Foreign Body				1 (2%)
Inflammation, Suppurative	1 (2%)			
Inflammation, Granulomatous				1 (2%)
Alveolar Epithelium, Hyperplasia	12 (24%)	11 (22%)	12 (24%)	8 (16%)
Alveolar Epithelium, Metaplasia, Squamous		1 (2%)		
Perivascular, Hemorrhage			1 (2%)	1 (2%)
Perivascular, Inflammation, Chronic Active	1 (2%)			
Nose	(50)	(50)	(50)	(50)

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FISCHER 344 RATS MALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Edema				1 (2%)
Foreign Body	10 (20%)	20 (40%)	15 (30%)	10 (20%)
Inflammation	21 (42%)	23 (46%)	16 (32%)	24 (48%)
Mineralization		1 (2%)		
Necrosis	1 (2%)			
Glands, Cyst				1 (2%)
Nasolacrimal Duct, Foreign Body			1 (2%)	
Nasolacrimal Duct, Hyperplasia, Squamous			1 (2%)	
Nasolacrimal Duct, Inflammation	1 (2%)		1 (2%)	
Olfactory Epithelium, Atrophy				1 (2%)
Olfactory Epithelium, Erosion				1 (2%)
Olfactory Epithelium, Metaplasia			1 (2%)	1 (2%)
Olfactory Epithelium, Necrosis				1 (2%)
Respiratory Epithelium, Degeneration, Cystic	1 (2%)			
Respiratory Epithelium, Erosion				1 (2%)
Respiratory Epithelium, Hyperplasia	14 (28%)	20 (40%)	15 (30%)	17 (34%)
Respiratory Epithelium, Metaplasia, Squamous		1 (2%)		
Respiratory Epithelium, Ulcer	2 (4%)			
Squamous Epithelium, Hyperplasia		1 (2%)	1 (2%)	
Trachea	(49)	(50)	(50)	(50)
Amyloid Deposition	1 (2%)			
Inflammation				1 (2%)
Glands, Cyst	2 (4%)			

**SPECIAL SENSES SYSTEM**

Ear	(2)	(0)	(0)	(0)
Cyst	1 (50%)			
Hyperplasia, Squamous	1 (50%)			
Eye	(50)	(50)	(50)	(50)
Cataract	2 (4%)	3 (6%)	1 (2%)	3 (6%)
Cornea, Hyperplasia, Squamous			2 (4%)	
Cornea, Inflammation, Chronic Active	1 (2%)			1 (2%)
Retina, Degeneration		1 (2%)	1 (2%)	1 (2%)
Sclera, Inflammation, Chronic Active	1 (2%)			1 (2%)

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Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia	1 (2%)		2 (4%)	
Zymbal's Gland	(1)	(0)	(1)	(1)
<b>URINARY SYSTEM</b>				
Kidney	(50)	(50)	(50)	(50)
Accumulation, Hyaline Droplet				1 (2%)
Dilatation		1 (2%)		
Infarct, Acute		1 (2%)	1 (2%)	1 (2%)
Metaplasia, Osseous		1 (2%)		
Nephropathy	48 (96%)	50 (100%)	50 (100%)	50 (100%)
Medulla, Renal Tubule, Necrosis		1 (2%)		
Pelvis, Inflammation, Chronic Active		1 (2%)	2 (4%)	
Renal Tubule, Hyperplasia		1 (2%)		1 (2%)
Urinary Bladder	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Infiltration Cellular, Mixed Cell, Chronic Active				1 (2%)
Inflammation, Suppurative		1 (2%)		
Transitional Epithelium, Hyperplasia		1 (2%)		

\*\*\* END OF MALE \*\*\*

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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
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**Disposition Summary**

<b>Animals Initially In Study</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>
<b>Early Deaths</b>				
<b>Moribund Sacrifice</b>	<b>15</b>	<b>13</b>	<b>14</b>	<b>15</b>
<b>Natural Death</b>	<b>5</b>	<b>5</b>	<b>3</b>	<b>5</b>
<b>Survivors</b>				
<b>Natural Death</b>	<b>1</b>			
<b>Terminal Sacrifice</b>	<b>29</b>	<b>32</b>	<b>33</b>	<b>30</b>
<b>Animals Examined Microscopically</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

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ALIMENTARY SYSTEM

Esophagus	(50)	(50)	(50)	(50)
Intestine Large, Cecum	(46)	(45)	(47)	(45)
Inflammation, Chronic Active	1 (2%)			
Intestine Large, Colon	(47)	(48)	(50)	(49)
Inflammation, Chronic Active		1 (2%)		
Parasite Metazoan	3 (6%)	2 (4%)	2 (4%)	1 (2%)
Intestine Large, Rectum	(47)	(48)	(50)	(49)
Inflammation, Chronic Active		1 (2%)	1 (2%)	
Parasite Metazoan	3 (6%)	8 (17%)	1 (2%)	7 (14%)
Intestine Small, Duodenum	(50)	(47)	(50)	(50)
Intestine Small, Ileum	(47)	(46)	(49)	(50)
Inflammation, Chronic Active	1 (2%)	1 (2%)	1 (2%)	
Parasite Metazoan				1 (2%)
Intestine Small, Jejunum	(48)	(46)	(47)	(48)
Inflammation, Chronic Active	1 (2%)		2 (4%)	1 (2%)
Liver	(50)	(50)	(50)	(50)
Angiectasis		3 (6%)	1 (2%)	
Atypia Cellular			1 (2%)	
Basophilic Focus	37 (74%)	41 (82%)	46 (92%)	45 (90%)
Clear Cell Focus	10 (20%)	12 (24%)	12 (24%)	10 (20%)
Congestion	1 (2%)	1 (2%)		1 (2%)
Degeneration, Cystic	1 (2%)			
Eosinophilic Focus	12 (24%)	14 (28%)	12 (24%)	13 (26%)

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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Fatty Change	8 (16%)	7 (14%)	8 (16%)	11 (22%)
Fatty Change, Focal	2 (4%)	13 (26%)	7 (14%)	8 (16%)
Hematopoietic Cell Proliferation	1 (2%)			
Hepatodiaphragmatic Nodule	2 (4%)	7 (14%)	3 (6%)	1 (2%)
Inflammation, Chronic Active	2 (4%)	4 (8%)	3 (6%)	
Mixed Cell Focus	1 (2%)	2 (4%)	1 (2%)	3 (6%)
Necrosis	1 (2%)		2 (4%)	
Regeneration	1 (2%)			
Vacuolization Cytoplasmic	4 (8%)	1 (2%)	2 (4%)	
Bile Duct, Hyperplasia	10 (20%)	2 (4%)	9 (18%)	7 (14%)
Serosa, Fibrosis			1 (2%)	2 (4%)
Vein, Dilatation	1 (2%)			1 (2%)
Vein, Infiltration Cellular, Mixed Cell		1 (2%)		
Mesentery	(4)	(7)	(7)	(8)
Fibrosis				1 (13%)
Fat, Necrosis	4 (100%)	6 (86%)	6 (86%)	7 (88%)
Oral Mucosa	(0)	(0)	(1)	(2)
Gingival, Foreign Body			1 (100%)	1 (50%)
Gingival, Inflammation, Chronic Active			1 (100%)	
Pancreas	(50)	(50)	(49)	(50)
Atrophy			1 (2%)	1 (2%)
Basophilic Focus	1 (2%)		2 (4%)	
Cyst	1 (2%)	2 (4%)		
Infiltration Cellular	2 (4%)			1 (2%)
Salivary Glands	(50)	(50)	(50)	(50)
Atrophy		1 (2%)	1 (2%)	
Stomach, Forestomach	(50)	(50)	(50)	(50)
Edema			1 (2%)	
Fibrosis	4 (8%)	1 (2%)	4 (8%)	1 (2%)
Hyperplasia, Basal Cell, Focal			1 (2%)	
Hyperplasia, Squamous	7 (14%)	5 (10%)	6 (12%)	7 (14%)
Inflammation	1 (2%)		1 (2%)	
Ulcer	1 (2%)	2 (4%)	3 (6%)	
Stomach, Glandular	(50)	(50)	(49)	(50)
Inflammation, Chronic Active	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Mineralization				2 (4%)

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TDMS No. 20009 - 03  
 Test Type: CHRONIC  
 Route: DOSED WATER  
 Species/Strain: RATS/F 344/N

**P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)**  
 beta-Picoline  
 CAS Number: 108-99-6

Date Report Requested: 05/27/2011  
 Time Report Requested: 10:09:55  
 First Dose M/F: 11/18/04 / 11/19/04  
 Lab: BAT

FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Ulcer	1 (2%)			
Tongue	(0)	(0)	(0)	(1)
<b>CARDIOVASCULAR SYSTEM</b>				
Blood Vessel	(50)	(50)	(50)	(50)
Aorta, Mineralization				1 (2%)
Heart	(50)	(50)	(50)	(50)
Cardiomyopathy	48 (96%)	50 (100%)	50 (100%)	49 (98%)
Mineralization				2 (4%)
Artery, Infiltration Cellular, Mononuclear Cell	1 (2%)			
Atrium, Thrombosis	1 (2%)	1 (2%)		
Endocardium, Hyperplasia			1 (2%)	
<b>ENDOCRINE SYSTEM</b>				
Adrenal Cortex	(50)	(50)	(50)	(50)
Accessory Adrenal Cortical Nodule	1 (2%)	1 (2%)		1 (2%)
Amyloid Deposition		1 (2%)		
Hyperplasia	26 (52%)	25 (50%)	34 (68%)	22 (44%)
Necrosis	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Vacuolization Cytoplasmic	2 (4%)	1 (2%)	1 (2%)	1 (2%)
Adrenal Medulla	(50)	(50)	(50)	(50)
Hyperplasia	5 (10%)	3 (6%)	1 (2%)	3 (6%)
Islets, Pancreatic	(50)	(49)	(50)	(50)
Hyperplasia				1 (2%)
Parathyroid Gland	(47)	(49)	(48)	(48)
Hyperplasia				1 (2%)
Pituitary Gland	(50)	(49)	(49)	(50)
Angiectasis		1 (2%)		
Cyst			1 (2%)	
Pars Distalis, Cyst	1 (2%)	1 (2%)		1 (2%)
Pars Distalis, Hyperplasia	19 (38%)	19 (39%)	20 (41%)	20 (40%)
Pars Intermedia, Hyperplasia	1 (2%)			
Thyroid Gland	(50)	(48)	(50)	(50)

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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Mineralization				1 (2%)
C-cell, Hyperplasia	8 (16%)	6 (13%)	5 (10%)	7 (14%)
Follicle, Cyst		1 (2%)	1 (2%)	
<b>GENERAL BODY SYSTEM</b>				
Peritoneum	(0)	(1)	(0)	(0)
<b>GENITAL SYSTEM</b>				
Clitoral Gland	(50)	(50)	(50)	(50)
Cyst	1 (2%)	1 (2%)	2 (4%)	1 (2%)
Fibrosis	1 (2%)		1 (2%)	1 (2%)
Hyperplasia	2 (4%)	4 (8%)	3 (6%)	4 (8%)
Inflammation	9 (18%)	5 (10%)	6 (12%)	6 (12%)
Duct, Dilatation		1 (2%)		
Ovary	(50)	(50)	(50)	(50)
Atrophy		1 (2%)		1 (2%)
Cyst	4 (8%)	3 (6%)		3 (6%)
Uterus	(50)	(50)	(50)	(50)
Hemorrhage		1 (2%)		
Inflammation, Suppurative		1 (2%)		
Cervix, Cyst	4 (8%)	2 (4%)	3 (6%)	3 (6%)
Endometrium, Hyperplasia, Cystic	1 (2%)	8 (16%)	7 (14%)	8 (16%)
Vagina	(1)	(1)	(0)	(2)
<b>HEMATOPOIETIC SYSTEM</b>				
Bone Marrow	(50)	(50)	(50)	(50)
Fibrosis		1 (2%)		
Lymph Node	(5)	(7)	(5)	(2)
Deep Cervical, Ectasia			1 (20%)	
Deep Cervical, Hemorrhage		1 (14%)		
Deep Cervical, Infiltration Cellular, Histiocyte			1 (20%)	

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TDMS No. 20009 - 03  
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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Mediastinal, Ectasia		1 (14%)		
Mediastinal, Hemorrhage		1 (14%)		1 (50%)
Mediastinal, Hyperplasia		1 (14%)		
Mediastinal, Infiltration Cellular, Histiocyte				1 (50%)
Mediastinal, Infiltration Cellular, Mixed Cell			1 (20%)	
Pancreatic, Ectasia	1 (20%)			
Lymph Node, Mesenteric	(50)	(50)	(50)	(50)
Ectasia			1 (2%)	
Infiltration Cellular, Mast Cell			1 (2%)	
Infiltration Cellular, Mononuclear Cell			1 (2%)	
Infiltration Cellular, Plasma Cell				1 (2%)
Spleen	(50)	(50)	(50)	(50)
Angiectasis			1 (2%)	
Atrophy			1 (2%)	2 (4%)
Degeneration, Cystic, Focal			1 (2%)	
Hyperplasia, Lymphoid	4 (8%)	2 (4%)	1 (2%)	
Necrosis		1 (2%)		1 (2%)
Thymus	(49)	(50)	(50)	(47)
Cyst	1 (2%)			1 (2%)
Fibrosis				1 (2%)
Hyperplasia, Lymphoid	1 (2%)			
Inflammation, Suppurative				1 (2%)

**INTEGUMENTARY SYSTEM**

Mammary Gland	(50)	(50)	(50)	(50)
Galactocele	12 (24%)	8 (16%)	3 (6%)	4 (8%)
Hyperplasia	4 (8%)	4 (8%)	6 (12%)	4 (8%)
Inflammation	1 (2%)			
Skin	(50)	(50)	(50)	(50)
Fibrosis	1 (2%)		1 (2%)	
Hyperplasia, Squamous			1 (2%)	
Inflammation, Chronic Active		1 (2%)		
Ulcer		2 (4%)	2 (4%)	1 (2%)
Lip, Inflammation, Suppurative				1 (2%)

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<b>FISCHER 344 RATS FEMALE</b>	<b>0 mg/l</b>	<b>156.25 mg/l</b>	<b>312.5 mg/l</b>	<b>625 mg/l</b>
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**MUSCULOSKELETAL SYSTEM**

Bone	(50)	(50)	(50)	(50)
Cyst				1 (2%)
Hyperostosis	1 (2%)			
Inflammation, Chronic Active	1 (2%)			1 (2%)
Skeletal Muscle	(0)	(1)	(0)	(0)

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**NERVOUS SYSTEM**

Brain	(50)	(50)	(50)	(50)
Compression	13 (26%)	7 (14%)	7 (14%)	9 (18%)
Hemorrhage		2 (4%)		1 (2%)
Inflammation, Chronic Active		1 (2%)		

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**RESPIRATORY SYSTEM**

Lung	(50)	(50)	(50)	(50)
Fibrosis				1 (2%)
Foreign Body	1 (2%)			
Inflammation, Suppurative			1 (2%)	
Inflammation, Granulomatous	1 (2%)		1 (2%)	
Inflammation, Chronic Active	1 (2%)			
Metaplasia, Squamous	1 (2%)			
Pigmentation	1 (2%)			
Thrombosis				1 (2%)
Alveolar Epithelium, Hyperplasia	7 (14%)	14 (28%)	14 (28%)	11 (22%)
Alveolar Epithelium, Metaplasia, Squamous		3 (6%)	1 (2%)	1 (2%)
Bronchiole, Inflammation, Suppurative			1 (2%)	
Bronchiole, Inflammation, Chronic Active			2 (4%)	
Serosa, Fibrosis		1 (2%)		2 (4%)
Serosa, Inflammation, Granulomatous			1 (2%)	
Nose	(50)	(50)	(50)	(50)

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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Foreign Body	2 (4%)	3 (6%)	3 (6%)	2 (4%)
Inflammation	3 (6%)	5 (10%)	4 (8%)	3 (6%)
Glands, Hyperplasia		1 (2%)		
Nasolacrimal Duct, Foreign Body	1 (2%)			
Nasolacrimal Duct, Inflammation	2 (4%)			
Olfactory Epithelium, Atrophy		1 (2%)		
Olfactory Epithelium, Metaplasia		1 (2%)		
Respiratory Epithelium, Hyperplasia	3 (6%)	1 (2%)	1 (2%)	2 (4%)
Turbinate, Cyst				2 (4%)
Trachea	(50)	(50)	(50)	(50)
Infiltration Cellular, Mixed Cell		1 (2%)		

**SPECIAL SENSES SYSTEM**

Eye	(50)	(48)	(48)	(50)
Atrophy	1 (2%)			
Cataract	8 (16%)	13 (27%)	14 (29%)	10 (20%)
Anterior Chamber, Inflammation, Suppurative		1 (2%)		1 (2%)
Cornea, Edema			1 (2%)	
Cornea, Hyperplasia		1 (2%)		
Cornea, Inflammation, Chronic Active	2 (4%)		1 (2%)	
Retina, Degeneration	1 (2%)	2 (4%)	4 (8%)	3 (6%)
Harderian Gland	(50)	(50)	(50)	(50)
Hyperplasia			2 (4%)	1 (2%)
Inflammation, Granulomatous	1 (2%)			
Inflammation, Chronic Active	2 (4%)	1 (2%)		
Zymbal's Gland	(0)	(0)	(2)	(1)

**URINARY SYSTEM**

Kidney	(49)	(50)	(50)	(50)
Cyst			2 (4%)	
Degeneration, Fatty	1 (2%)			
Dilatation				1 (2%)
Fibrosis	8 (16%)	7 (14%)	8 (16%)	10 (20%)

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FISCHER 344 RATS FEMALE	0 mg/l	156.25 mg/l	312.5 mg/l	625 mg/l
Infarct	7 (14%)	8 (16%)	4 (8%)	5 (10%)
Mineralization				2 (4%)
Nephropathy	47 (96%)	50 (100%)	48 (96%)	50 (100%)
Papilla, Hemorrhage	1 (2%)		5 (10%)	1 (2%)
Pelvis, Inflammation, Chronic Active	8 (16%)	9 (18%)	8 (16%)	10 (20%)
Pelvis, Metaplasia, Squamous			1 (2%)	
Urinary Bladder	(50)	(50)	(50)	(50)
Infiltration Cellular, Chronic Active			1 (2%)	
Transitional Epithelium, Hyperplasia			1 (2%)	

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\*\*\* END OF REPORT \*\*\*

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