

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

F1_M3

C Number: C60311
Lock Date: 12/03/2008
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 2.4.2.1_003
PWG Approval Date: NONE

B6C3F1 MICE MALE	DAY ON TEST	0729	0638	0729	0642	0731	0674	0782	0779	0774	0779	0779	0779	0661	0779	0779	0779	0779	0779	0662	0779	0676	0779	0773	0682	0771	0677	0773
	ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027

males
(cont...)

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	+	+	A	+	+	M	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	A	A	+			
Intestine Large, Cecum	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	A	A	+			
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+			
Intestine Large, Rectum	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	A	A	+			
Intestine Small, Duodenum Adenoma	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+		A	A	+		
Intestine Small, Ileum Adenoma	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	A	+		
Intestine Small, Jejunum	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	A	A	+			
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemangiosarcoma																										X		X
Hemangiosarcoma, Multiple																												
Hepatoblastoma																												
Hepatocellular Adenoma					X	X				X	X		X	X	X													X
Hepatocellular Adenoma, Multiple	X			X			X		X			X								X			X					
Hepatocellular Carcinoma		X		X		X					X					X	X						X					X
Hepatocellular Carcinoma, Multiple					X		X		X				X						X	X	X					X		X
Histiocytic Sarcoma																												X
Lymphoma Malignant				X			X																					

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

B6C3F1 MICE MALE control	DAY ON TEST																								* TOTALS	
	0729	0561	0779	0779	0777	0777	0777	0777	0676	0777	0777	0777	0777	0777	0676	0777	0777	0777	0777	0777	0777	0777	0777	0777		
ANIMAL ID	000267	000229	000090	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000	000000		
Mesentery				+							+														5	
Pancreas Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	X	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Salivary Glands Histiocytic Sarcoma Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 1	
Stomach, Forestomach Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1	
Stomach, Glandular Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48 1	
Tooth					+							+	+			+			+				+		8	
CARDIOVASCULAR SYSTEM																										
Heart Hemangiosarcoma Lymphoma Malignant	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 1	
ENDOCRINE SYSTEM																										
Adrenal Cortex Hepatocellular Carcinoma, Metastatic, Liver Lymphoma Malignant Bilateral, Subcapsular, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50 1 2 1	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
* .. Total animals with tissue examined microscopically; Total animals with tumor													M .. Missing tissue													
+ .. Tissue examined microscopically													A .. Autolysis precludes evaluation													
X .. Lesion present													BLANK .. Not examined microscopically													
I .. Insufficient tissue																										

B6C3F1 MICE MALE	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	5	7	7	7	7	7	6	7	7	7	7	7	6	7	7	7	7	7	7	7	7	
control	ANIMAL ID	2	6	2	2	3	3	2	3	4	3	2	3	3	2	9	2	3	2	3	3	3	2	
		9	1	9	9	0	0	9	0	6	0	9	0	1	9	2	9	0	9	8	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	
		6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	Lymphoma Malignant																						1	
	Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
	Parathyroid Gland	M	+	M	M	+	M	M	M	+	+	M	M	M	+	+	M	+	M	+	+	+	29	
	Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
	Thyroid Gland	+	+	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
	GENERAL BODY SYSTEM																							
	NONE																							
	GENITAL SYSTEM																							
	Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
	Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
	Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
	Lymphoma Malignant									X													2	
	Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
	Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
	Histiocytic Sarcoma																						1	
	Lymphoma Malignant																						1	
	Interstitial Cell, Adenoma																						1	
	HEMATOPOIETIC SYSTEM																							

* TOTALS

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B6C3F1 MICE MALE control	DAY ON TEST																				* TOTALS					
	0729	0729	0729	0729	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730	0730		0730				
ANIMAL ID		000266	000267	000268	000269	000270	000271	000272	000273	000274	000275	000276	000277	000278	000279	000280	000281	000282	000283	000284	000285	000286	000287	000288	000289	000290
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemangiosarcoma																										1
Histiocytic Sarcoma																										1
Lymphoma Malignant								X																		1
Lymph Node																										2
Renal, Histiocytic Sarcoma																										1
Lymph Node, Bronchial	M	+	+	+	+	+	+	+	+	M	+	+	+	M	+	+	M	+	M	M	+	+	+	+	26	
Lymphoma Malignant								X																	3	
Lymph Node, Mandibular	+	M	+	M	+	+	+	+	+	M	+	+	+	+	+	M	+	+	M	+	+	M	+	+	37	
Histiocytic Sarcoma																									1	
Lymphoma Malignant																									1	
Lymph Node, Mediastinal	+	+	M	+	M	M	M	M	M	+	M	+	M	+	+	+	+	M	M	M	+	M	+	+	34	
Histiocytic Sarcoma																									1	
Lymphoma Malignant																									2	
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	47	
Histiocytic Sarcoma																									1	
Lymphoma Malignant																									1	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hemangiosarcoma																		X	X						3	
Histiocytic Sarcoma																									1	
Lymphoma Malignant								X																	3	
Thymus	+	+	M	+	+	+	M	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	42	
Histiocytic Sarcoma																									1	

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B6C3F1 MICE MALE control	DAY ON TEST																								* TOTALS		
	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729	0729		0729	
ANIMAL ID	0026	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	0024	0025	0026	0027	0028	0029	0030		
Lymphoma Malignant																										1	
INTEGUMENTARY SYSTEM																											
Mammary Gland	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	0	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Subcutaneous Tissue, Neural Crest Tumor																										1	
MUSCULOSKELETAL SYSTEM																											
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
NERVOUS SYSTEM																											
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant									X																	1	
Peripheral Nerve		+																								1	
Spinal Cord		+																								1	
RESPIRATORY SYSTEM																											
Larynx	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Alveolar/Bronchiolar Adenoma					X			X		X	X								X						7		
Alveolar/Bronchiolar Carcinoma		X	X															X						X	8		
Alveolar/Bronchiolar Carcinoma, Multiple					X						X														3		
Hepatocellular Carcinoma, Metastatic, Liver	X							X						X				X							9		
Histiocytic Sarcoma																									1		

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B6C3F1 MICE MALE control	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	5	7	7	7	7	7	6	7	7	7	7	7	6	7	7	7	7	7	7	7	7	* TOTALS
		2	6	2	2	3	3	2	3	4	3	2	3	3	2	9	2	3	2	0	3	3	3	
		9	1	9	9	0	0	9	0	6	0	9	0	1	9	2	9	0	9	8	9	0	0	
Lymphoma Malignant										X													3	
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymphoma Malignant										X													2	
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Lymphoma Malignant																							1	
SPECIAL SENSES SYSTEM																								
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	47	
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Adenoma										X													6	
Carcinoma						X				X													2	
Lymphoma Malignant										X													3	
URINARY SYSTEM																								
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Histiocytic Sarcoma																							1	
Lymphoma Malignant										X													2	
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	48	
Lymphoma Malignant										X													3	
SYSTEMIC LESIONS																								
Multiple Organ		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Histiocytic Sarcoma																							1	
Lymphoma Malignant										X													4	

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B6C3F1 MICE MALE 1.25 mg/m3	DAY ON TEST	0 7 2 9	0 7 2 9	0 7 2 9	0 6 1 8	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 7 2 9	0 6 8 4	0 6 1 7	0 7 1 5	0 7 3 0	0 7 3 1	0 7 3 1	0 7 3 1	0 7 3 1	0 5 8 9	males (cont...)		
	ANIMAL ID	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 0 0	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 0 0	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3		0 0 2 0 4	0 0 2 0 5
		1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3		4	5

ALIMENTARY SYSTEM

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Gallbladder	+	M	+	M	+	M	A	+	+	+	+	M	+	+	+	+	+	+	+	+	M	M	+	+	
Intestine Large, Cecum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Colon	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Rectum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Duodenum	+	+	+	+	+	+	I	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Jejunum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung																								X	
Cholangiocarcinoma					X																				
Hemangiosarcoma				X																					
Hemangiosarcoma, Multiple																									
Hepatoblastoma																									
Hepatocellular Adenoma				X			X								X										
Hepatocellular Adenoma, Multiple						X	X			X		X	X	X	X		X		X	X		X			
Hepatocellular Carcinoma		X		X					X				X		X		X					X			
Hepatocellular Carcinoma, Multiple									X									X						X	
Sarcoma, Metastatic, Mesentery							X																		

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TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

B6C3F1 MICE MALE	DAY ON TEST	0729	0729	0728	0679	0770	0771	0772	0773	0774	0775	0776	0777	0778	0779	0664	0667	0775	0776	0777	0778	0779	0558	0559	males (cont...)
	ANIMAL ID	0001	0002	0003	0004	0005	0006	0007	0008	0009	0010	0011	0012	0013	0014	0015	0016	0017	0018	0019	0020	0021	0022	0023	

Mesentery Sarcoma																											
Pancreas Carcinoma, Metastatic, Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach Sarcoma, Metastatic, Mesentery	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Glandular Sarcoma, Metastatic, Mesentery	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X
Tooth																											

CARDIOVASCULAR SYSTEM

Heart Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X
--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

ENDOCRINE SYSTEM

Adrenal Cortex Subcapsular, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adrenal Medulla Alveolar/Bronchiolar Carcinoma, Metastatic, Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X

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B6C3F1 MICE MALE	DAY ON TEST																				males (cont...)																		
	0 7 2 9	0 7 2 9	0 7 2 9	0 6 1 8	0 7 2 9	0 7 3 0	0 7 2 1	0 7 3 0	0 7 2 3	0 7 3 2	0 7 2 3	0 7 3 2	0 7 2 3	0 7 2 3	0 7 2 2	0 6 8 4	0 6 1 7	0 7 1 5	0 7 3 0	0 7 3 1		0 7 3 1	0 7 3 1	0 7 3 3	0 5 8 9														
1.25 mg/m3	ANIMAL ID																				males (cont...)																		
0 2 0 1	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0		0 0 2 0	0 0 2 0	0 0 2 0	0 0 2 0														
Islets, Pancreatic Adenoma Carcinoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	X
Parathyroid Gland	M	M	+	M	M	+	+	+	+	+	+	M	+	+	+	+	M	M	M	+	+	+	+	+	I	M													
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
GENERAL BODY SYSTEM																																							
NONE																																							
GENITAL SYSTEM																																							
Coagulating Gland Adenoma																																							
Epididymis Alveolar/Bronchiolar Carcinoma, Metastatic, Lung Hemangiosarcoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Prostate	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

B6C3F1 MICE MALE	DAY ON TEST	0 7	0 7	0 7	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 7	0 6	0 6	0 7	0 7	0 7	0 7	0 7	0 7	0 5	males (cont...)
		2	2	2	1	2	3	2	3	2	3	2	2	3	3	2	2	8	1	1	3	3	3	3	3	3	8	
		9	9	9	8	9	0	1	0	0	0	0	0	0	0	0	0	4	7	5	0	1	1	1	1	1	9	
	ANIMAL ID	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 0 0	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5	0 0 2 0 6	0 0 2 0 7	0 0 2 0 8	0 0 2 0 9	0 0 2 0 0	0 0 2 0 1	0 0 2 0 2	0 0 2 0 3	0 0 2 0 4	0 0 2 0 5		

Alveolar/Bronchiolar Carcinoma, Metastatic, Lung

X

HEMATOPOIETIC SYSTEM

Bone Marrow
Hemangiosarcoma

+ +

Lymph Node, Bronchial
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung
Hepatocellular Carcinoma, Metastatic, Liver

M M M + + + M + M + + + + + + + + M M + + + M + +
X

Lymph Node, Mandibular

M + + M + M M M M M + + M + + + + M + M M M + + M

Lymph Node, Mediastinal
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung
Hepatocellular Carcinoma, Metastatic, Liver

+ + + + + M + M M + + M M + + M + + + + M M + + + X

Lymph Node, Mesenteric
Lymphoma Malignant

+ + + + + + + + + + + + + + + + I + + + + + +

Spleen
Hemangioma

+ X

Thymus
Hepatocellular Carcinoma, Metastatic, Liver

+ + + + + + + + + + + + + + + M + + + + + + M

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | |
| | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 2 | 8 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | |
| | 9 | 9 | 9 | 8 | 9 | 0 | 1 | 0 | 9 | 0 | 9 | 9 | 9 | 1 | 0 | 9 | 9 | 4 | 7 | 5 | 0 | 1 | 1 | 1 | 1 | 9 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 5 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Subcutaneous Tissue, Fibrous Histiocytoma | | | | | | | | | | | | | | | | X | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | X | | | | | | | | | | | | X | | | | | | | | | X | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Adenoma | | | | | | X | | | | | | X | X | | | | | | | | X | | | | X | |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Alveolar/Bronchiolar Carcinoma | X | | | X | X | X | | | X | | | | X | X | X | | | | | | X | X | X | | X | X |
| Alveolar/Bronchiolar Carcinoma, Multiple | | | X | | | | | X | X | | | | | | | | | | | X | X | X | X | | X | X |
| Carcinoma, Metastatic, Islets, Pancreatic | | | | | | | | | | X | | | | | | | | | X | X | X | X | | | | X |
| Hepatoblastoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Hepatocellular Carcinoma, Metastatic, Liver | | | X | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|------------------|-------------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| | | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | 0729 |
| 1.25 mg/m3 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | |

Nose Glands, Olfactory Epithelium, Adenoma + + + + + X

Trachea +

SPECIAL SENSES SYSTEM

Eye + + + + + A +

Harderian Gland Adenoma + + + + + X +
 Carcinoma X X

Zymbal's Gland

URINARY SYSTEM

Kidney Alveolar/Bronchiolar Carcinoma, Metastatic, Lung + X
 Hepatocellular Carcinoma, Metastatic, Liver

Urinary Bladder +

SYSTEMIC LESIONS

Multiple Organ Lymphoma Malignant +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0729 | 0660 | 0730 | 0730 | 0457 | 0633 | 0729 | 0672 | 0531 | 0731 | 0671 | 0766 | 0572 | 0772 | 0571 | 0773 | 0773 | 0771 | 0633 | 0669 | 0661 | 0663 | * TOTALS |
| | ANIMAL ID | 002226 | 000222 | 000222 | 000222 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | 000223 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Gallbladder | + | + | + | + | A | + | + | + | + | + | A | A | M | + | + | + | + | + | + | + | + | M | M | + | 37 |
| Intestine Large, Cecum | + | + | + | + | A | + | + | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | 45 |
| Intestine Large, Colon | + | + | + | + | A | + | + | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | 45 |
| Intestine Large, Rectum | + | + | + | + | A | + | + | + | I | + | + | A | A | + | + | + | + | + | + | A | + | + | + | + | 44 |
| Intestine Small, Duodenum | + | + | + | + | A | + | + | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | 44 |
| Intestine Small, Ileum | + | + | + | + | A | + | + | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | 45 |
| Intestine Small, Jejunum | + | + | + | + | A | + | + | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | 45 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cholangiocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemangiosarcoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Hepatoblastoma | X | | | | | | | | | | | | | | | | | | X | | | | | | 2 |
| Hepatocellular Adenoma | | | X | | | X | | | | X | X | | | | X | | | | | X | | | | | 9 |
| Hepatocellular Adenoma, Multiple | | | | | | | X | | | | | | | | | | X | X | X | | | | | | 16 |
| Hepatocellular Carcinoma | | | X | | X | | | | | | X | | | X | | | X | | | | | X | | X | 15 |
| Hepatocellular Carcinoma, Multiple | | | | | | | X | | | | | X | X | | | | | | | | | | | | 6 |
| Sarcoma, Metastatic, Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE MALE
1.25 mg/m3 | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | | 0729 | 0660 | 0730 | 0730 | 0453 | 0733 | 0633 | 0729 | 0729 | 0511 | 0711 | 0611 | 0711 | 0611 | 0711 | 0711 | 0517 | 0717 | 0717 | 0331 | 0733 | 0630 | 0631 | 0631 | |
| ANIMAL ID | | 0022 | 0022 | 0022 | 0022 | 0023 | 0023 | 0023 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|
| Islets, Pancreatic | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | 47 | |
| Adenoma | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Parathyroid Gland | + | M | M | M | A | M | M | M | M | + | M | M | M | M | + | + | + | + | M | M | + | + | M | + | + | 25 |
| Pituitary Gland | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Thyroid Gland | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Coagulating Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epididymis | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemangiosarcoma | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 | |
| Preputial Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Prostate | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Seminal Vesicle | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 | |
| Testes | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Cobalt
 CAS Number: 7440-48-4

Date Report Requested: 09/08/2011
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 First Dose M/F: 05/15/06 / 05/15/06
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE

1.25 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 6 | 7 | 7 | 4 | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 7 | 6 | 7 | 7 | 5 | 7 | 7 | 3 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 2 | 6 | 3 | 3 | 5 | 3 | 3 | 2 | 5 | 3 | 3 | 2 | 1 | 1 | 2 | 2 | 7 | 2 | 3 | 3 | 3 | 1 | 3 | 3 | 9 | 1 | 3 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 9 | 0 | 0 | 0 | 7 | 0 | 9 | 9 | 1 | 1 | 1 | 1 | 7 | 7 | 9 | 3 | 1 | 9 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 8 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 1 | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Alveolar/Bronchiolar Carcinoma, Metastatic, Lung

1

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|
| Bone Marrow | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hemangiosarcoma | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymph Node, Bronchial | M | + | + | + | A | + | + | + | + | + | M | M | + | + | + | + | M | + | M | + | M | M | M | + | M | + | M | + | M | + | M | + | M | + | M | + | 32 | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | + | M | + | M | M | + | M | + | M | M | M | M | + | + | M | M | + | + | M | M | + | + | M | M | + | + | M | + | M | + | M | + | M | + | M | + | 23 | |
| Lymph Node, Mediastinal | + | + | + | + | A | M | + | M | + | + | + | + | + | + | M | M | + | + | M | M | + | + | M | + | + | M | + | + | M | + | + | + | + | + | + | + | + | 34 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | + | + | + | + | A | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | A | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Hemangioma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thymus | + | + | + | + | A | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 44 | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0729 | 0660 | 0763 | 0773 | 0455 | 0733 | 0633 | 0729 | 0051 | 0071 | 0077 | 0676 | 0776 | 0677 | 0776 | 0777 | 0575 | 0772 | 0773 | 0773 | 0131 | 0339 | 0661 | 0663 | |
| ANIMAL ID | 0022 | 0022 | 0022 | 0022 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrous Histiocytoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | 3 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lung | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | | 10 |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma | X | X | X | | | | | | X | | | X | X | | | | X | | X | X | | | | | 20 |
| Alveolar/Bronchiolar Carcinoma, Multiple | | | | X | | X | | X | X | X | X | | | | X | X | | | | | | X | | | 18 |
| Carcinoma, Metastatic, Islets, Pancreatic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatoblastoma, Metastatic, Liver | X | | | | | | | | | | | | | | | | | | X | | | | | | 2 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | X | | | | X | | | | X | | | | | | | X | X | | 6 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|----------|
| | 0729 | 0660 | 0763 | 0773 | 0455 | 0733 | 0633 | 0729 | 0551 | 0771 | 0776 | 0676 | 0767 | 0667 | 0776 | 0777 | 0577 | 0773 | 0773 | 0133 | 0391 | 0661 | 0663 | 0666 | |
| ANIMAL ID | 002267 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | 000022 | |
| Nose
Glands, Olfactory Epithelium, Adenoma | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
1 | |
| Trachea | + | + | + | + | A | + | + | + | + | I | + | + | A | + | + | + | + | + | + | + | + | + | + | 47 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | 46 | |
| Harderian Gland
Adenoma | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48
3 | |
| Carcinoma | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | + | | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
3 | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | X | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 48 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------|------|------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0729 | 0731 | 0764 | 0773 | 0763 | 0773 | 0733 | 0766 | 0766 | 0722 | 0761 | 0773 | 0777 | 0766 | 0776 | 0772 | 0772 | 0733 | 0799 | 0762 | 0779 | 0772 | 0773 | 0777 | 0777 | 0777 | 0777 |
| | ANIMAL ID | 0040 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 |
| 2.5 mg/m3 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | males (cont...) | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Lymphoma Malignant | + | + | M | + | + | M | I | + | + | + | + | + | + | M | M | + | + | I | I | + | A | + | + | M | + | | | | |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Intestine Small, Duodenum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | |
| Intestine Small, Jejunum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemangiosarcoma | | | | X | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Hepatocellular Adenoma | | | | | | | X | | | | | X | | | X | | | | | | X | X | X | X | | | | | |
| Hepatocellular Adenoma, Multiple | | X | | | | | X | | | | | | X | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | | | | | | | X | | | | X | | | | | | X | | | | | | | X | |
| Hepatocellular Carcinoma, Multiple | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0660 | 0730 | 0723 | 0722 | 0533 | 0722 | 0722 | 0466 | 0591 | 0662 | 0673 | 0665 | 0733 | 0773 | 0673 | 0773 | 0339 | 0733 | 0720 | 0703 | 0773 | 0773 | 0388 | 0382 | * TOTALS |
| | ANIMAL ID | 00426 | 00427 | 00428 | 00429 | 00430 | 00431 | 00432 | 00433 | 00434 | 00435 | 00436 | 00437 | 00438 | 00439 | 00440 | 00441 | 00442 | 00443 | 00444 | 00445 | 00446 | 00447 | 00448 | 00449 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Gallbladder Lymphoma Malignant | + | + | + | + | A | M | I | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | A | 34
1 | |
| Intestine Large, Cecum | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | 44 | |
| Intestine Large, Colon | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | 45 | |
| Intestine Large, Rectum | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | 45 | |
| Intestine Small, Duodenum Lymphoma Malignant | + | + | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | A | 44
1 | |
| Intestine Small, Ileum Lymphoma Malignant | + | + | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | A | 43
1 | |
| Intestine Small, Jejunum Lymphoma Malignant | + | + | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | A | 43
1 | |
| Liver Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
3 | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 13 | |
| Hepatocellular Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 8 | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 11 | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
2.5 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|
| | 0660 | 0730 | 0773 | 0772 | 0772 | 0773 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | 0779 | | |
| ANIMAL ID | 00426 | 00442 | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Stomach, Glandular | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 48 | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | + | 2 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcapsular, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | M | + | M | + | M | M | + | + | M | M | + | + | + | M | + | M | + | + | + | + | M | + | + | M | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
2.5 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0660 | 0730 | 0773 | 0772 | 0723 | 0753 | 0772 | 0779 | 0746 | 0756 | 0766 | 0776 | 0766 | 0776 | 0766 | 0776 | 0766 | 0776 | 0733 | 0773 | | 0772 | 0770 | 0773 | 0773 | 0738 | 0778 |
| ANIMAL ID | 00426 | 00442 | 00442 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 |
| Lymph Node, Bronchial | M | M | M | + | M | M | M | M | M | M | + | M | + | M | M | M | M | M | M | + | + | + | M | + | M | 20 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | M | + | M | M | + | + | M | M | + | + | + | + | M | + | M | M | M | M | M | + | + | + | + | M | M | 27 | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mediastinal | + | + | + | + | M | + | + | + | A | + | + | + | + | M | + | + | + | + | + | + | M | + | + | M | M | 36 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | X | | | X | | | | | | | | | | | | | | 3 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | + | M | + | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | A | + | + | A | 44 | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 49 | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | X | X | | | 4 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Thymus | + | + | M | + | A | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | I | 40 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
2.5 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0660 | 0730 | 0773 | 0772 | 0523 | 0723 | 0722 | 0460 | 0597 | 0617 | 0667 | 0766 | 0773 | 0635 | 0733 | 0683 | 0733 | 0393 | 0733 | 0272 | 0770 | 0773 | 0773 | 0373 | | 0773 | 0773 | 0388 | 0738 |
| ANIMAL ID | 00426 | 00447 | 00448 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00444 | 00445 | 00440 |
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | 0 |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Subcutaneous Tissue, Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Neural Crest Tumor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Head, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | X | X | | X | | X | | | | | | | | | | | | | | | | | | | | | | | 14 |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma | | | X | X | | | | | | | | | | | | | | | | | | | | | | | | | 18 |
| Alveolar/Bronchiolar Carcinoma, Multiple | X | | | X | X | | | | | | | | | | | | | | | | | | | | | | | | 24 |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
2.5 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|---|
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 7 | 7 | 7 | 5 | 7 | 7 | 4 | 5 | 6 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 |
| | | 6 | 3 | 2 | 2 | 3 | 2 | 2 | 6 | 9 | 1 | 2 | 3 | 5 | 3 | 3 | 8 | 3 | 3 | 9 | 3 | 2 | 0 | 3 | 3 | 0 | 6 | 1 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 8 | | |
| | | 0 | 0 | 3 | 9 | 3 | 9 | 9 | 0 | 7 | 7 | 7 | 0 | 2 | 0 | 0 | 3 | 0 | 1 | 4 | 0 | 9 | 6 | 1 | 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 | 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 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 48 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | 43 | | |
| Harderian Gland | | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 48 | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | X | | X | | | | | | | | | | | X | | 4 | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 49 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0729 | 0729 | 0678 | 0768 | 0574 | 0776 | 0771 | 0779 | 0776 | 0771 | 0576 | 0771 | 0773 | 0773 | 0425 | 0557 | 0557 | 0770 | 0476 | 0772 | 0691 | 0767 | 0733 | 0730 | males
(cont...) |
| | ANIMAL ID | 0060 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | A | + | + | + | M | M | + | + | + | A | A | I | + | M | + | | |
| Intestine Large, Cecum
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | A | + | + | | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Duodenum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | A | + | A | + | + | | |
| Intestine Small, Ileum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | A | + | A | + | + | | |
| Intestine Small, Jejunum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | A | + | A | + | + | | |
| Liver
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung
Cholangiocarcinoma
Hepatocellular Adenoma
Hepatocellular Adenoma, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | | | | | |
| | X | | X | | | | | | | | X | X | | | | | | X | | X | | | | X | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 4 | 5 | 5 | 7 | 4 | 7 | 6 | 7 | 7 | | |
| | | 3 | 2 | 2 | 1 | 3 | 9 | 5 | 1 | 2 | 3 | 0 | 3 | 8 | 3 | 3 | 2 | 3 | 7 | 0 | 7 | 2 | 9 | 3 | 3 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | |
| Hepatocellular Carcinoma | | X | | | | X | | | | | | X | X | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tooth | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 4 | 5 | 5 | 7 | 4 | 7 | 6 | 7 | 7 | 7 | | 7 |
| 5.0 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

Subcapsular, Adenoma

X

Adrenal Medulla
Lymphoma Malignant

+ + + + + + + + + + + + + + + M + + + + + + + +

Islets, Pancreatic

+ +

Parathyroid Gland

M + + M + M + + M M M M + M + + + + + M + + M M

Pituitary Gland

+ + + + + + + + + + + + + + M + + + M + + + + + +

Thyroid Gland

+ + + + + + + + + + + I + + + + + + + + + + + +

GENERAL BODY SYSTEM

Tissue NOS

GENITAL SYSTEM

Coagulating Gland
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung

+
X

Epididymis
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung

+ +

Penis

Preputial Gland

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 60311 - 06
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Cobalt
CAS Number: 7440-48-4

Date Report Requested: 09/08/2011
Time Report Requested: 08:22:41
First Dose M/F: 05/15/06 / 05/15/06
Lab: BNW

| B6C3F1 MICE MALE | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|---|---|---|--|
| 5.0 mg/m3 | | 0730 | 0722 | 0772 | 0661 | 0773 | 0669 | 0551 | 0772 | 0773 | 0777 | 0753 | 0773 | 0773 | 0442 | 0553 | 0557 | 0774 | 0772 | 0669 | 0671 | 0773 | 0773 | males
(cont...) | | | | |
| | ANIMAL ID | 0060 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | | | |
| Prostate | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Seminal Vesicle | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Testes | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | | + | + | + | M | + | M | M | + | M | + | M | + | M | M | M | M | + | M | + | M | + | + | M | + | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Lymph Node, Mandibular | | + | + | + | + | M | M | M | M | + | + | + | + | + | + | + | + | M | M | + | M | + | M | M | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mediastinal | | M | + | M | + | + | + | + | + | + | M | M | + | + | + | + | M | + | + | + | + | + | + | + | + | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | + | + | + | M | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | M | + | A | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 4 | 5 | 5 | 7 | 4 | 7 | 6 | 7 | 7 | | | |
| | | 3 | 2 | 2 | 1 | 3 | 9 | 5 | 1 | 2 | 3 | 0 | 3 | 8 | 3 | 3 | 2 | 3 | 7 | 0 | 7 | 2 | 9 | 3 | 3 | | | |
| | | 0 | 9 | 9 | 8 | 0 | 8 | 4 | 6 | 9 | 1 | 6 | 1 | 6 | 1 | 0 | 0 | 5 | 7 | 5 | 8 | 6 | 9 | 0 | 0 | | | |
| | | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Spleen | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Hemangioma | | | | | | | | | | | X | | | | | | | | | | | | | |
| Hemangiosarcoma | | | | X | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | |
| Thymus | + | + | + | M | + | M | + | + | + | + | + | + | M | M | + | + | + | M | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | X | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M | M |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Subcutaneous Tissue, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | |
| Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | + | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Peripheral Nerve | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|
| B6C3F1 MICE MALE | DAY ON TEST | 0730 | 0722 | 0722 | 0671 | 0739 | 0655 | 0771 | 0777 | 0777 | 0777 | 0575 | 0777 | 0777 | 0777 | 0474 | 0575 | 0575 | 0777 | 0474 | 0777 | 0676 | 0777 | 0777 | | |
| | ANIMAL ID | 0060 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | 0066 | |
| 5.0 mg/m3 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 |

males
(cont...)

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | X | | X | | | | | | | | | | | | | X | | | | | | | | X |
| Alveolar/Bronchiolar Carcinoma, Multiple | X | | X | | X | X | X | X | X | | X | X | X | X | X | X | | X | X | X | | X | X | | |
| Cholangiocarcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | A | + | + |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

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First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------|------|
| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | 0730 | 0722 | 0722 | 0613 | 0739 | 0655 | 0771 | 0777 | 0777 | 0777 | 0575 | 0777 | 0777 | 0773 | 0423 | 0557 | 0557 | 0747 | 0477 | 0667 | 0773 | 0773 | 0773 | males
(cont...) | |
| | ANIMAL ID | 0060 | 0066 | 0066 | 0066 | 0066 | 0067 | 0068 | 0069 | 0060 | 0061 | 0062 | 0063 | 0064 | 0065 | 0066 | 0067 | 0068 | 0069 | 0070 | 0071 | 0072 | 0073 | 0074 | | 0075 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Urinary Bladder Lymphoma Malignant | | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ Lymphoma Malignant | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
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| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|
| B6C3F1 MICE MALE | DAY ON TEST | 0571 | 0683 | 0731 | 0669 | 0762 | 0664 | 0666 | 0729 | 0553 | 0773 | 0773 | 0773 | 0272 | 0773 | 0773 | 0773 | 0663 | 0773 | 0773 | 0556 | 0556 | 0667 | 0668 | * TOTALS |
| | ANIMAL ID | 00626 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Gallbladder | M | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | A | + | + | + | A | M | M | A | 35 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 45 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 46 |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 48 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cholangiocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatocellular Adenoma | | X | | | | | | | X | | | | | | | | X | | X | X | | | | | 11 |
| Hepatocellular Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0571 | 0683 | 0731 | 0669 | 0772 | 0664 | 0666 | 0772 | 0666 | 0772 | 0571 | 0772 | 0772 | 0272 | 0772 | 0772 | 0772 | 0663 | 0772 | 0772 | 0571 | 0571 | 0667 | | |
| ANIMAL ID | 00626 | 00662 | 00662 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | 00666 | |
| Hepatocellular Carcinoma | | | | | | X | X | | X | X | | | | | | | | | | | | | | | 8 |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Mesentery | | | | + | | | | | + | | | | | | | | | | | | + | | | | 3 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Tooth | | | | | | | | | | | | | | | | | | | | | + | | | | 1 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | X | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

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Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----------|
| | ANIMAL ID | 5 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 5 | 6 | |
| | | 7 | 8 | 3 | 1 | 9 | 2 | 4 | 6 | 2 | 9 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 8 | 6 | 7 | |
| | | 1 | 1 | 1 | 7 | 1 | 9 | 9 | 0 | | 3 | 0 | 1 | 1 | 7 | 1 | 0 | 0 | 5 | 0 | 0 | 2 | 6 | 8 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |
| Prostate | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Seminal Vesicle | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Testes | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | X | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | 1 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | | | | | | | X | | | | | | X | | | | | | | | | | 2 | |
| Lymph Node | | | | | | | | | | | | | | + | | | | | | | | | | 1 | |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Lymph Node, Bronchial | | + | M | M | + | + | M | M | M | + | + | M | + | + | M | M | M | M | M | M | + | M | + | 24 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | X | | | | | | | | | | | | | | | | | | | 2 | |
| Lymph Node, Mandibular | | M | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 37 | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Lymph Node, Mediastinal | | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | M | + | + | + | + | 42 | |
| Lymphoma Malignant | | | | | | | | X | | | | | | X | | | | | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-----------------------|
| B6C3F1 MICE MALE
5.0 mg/m3 | DAY ON TEST | 0
5
7
1 | 0
6
8
1 | 0
7
3
1 | 0
6
1
7 | 0
6
9
2 | 0
7
2
9 | 0
6
4
6 | 0
6
2
6 | 0
7
9
3 | 0
5
9
3 | 0
7
3
3 | 0
7
3
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1 | 0
7
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3 | 0
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7
2
9 | 0
7
3
0 | 0
7
1
2 | 0
5
8
6 | 0
5
6
2 | 0
6
7
8 | * TOTALS | |
| | ANIMAL ID | 0
0
6
2
6 | 0
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6
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9 |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Larynx | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Adenoma | X | | | | | | | | | | | | | | | | X | | | | | | | 3 | |
| Alveolar/Bronchiolar Carcinoma | X | | | | | X | | | X | | | | | | | | X | | | | X | | X | 10 | |
| Alveolar/Bronchiolar Carcinoma, Multiple | | X | X | X | X | X | | X | X | X | | | X | | | X | X | X | | | X | X | X | 36 | |
| Cholangiocarcinoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | 45 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | X | | | | | | | | | X | X | | | | | | | 4 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 60311 - 06
 Test Type: CHRONIC
 Route: RESPIRATORY EXPOSURE WHOLE BODY
 Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Cobalt
 CAS Number: 7440-48-4

Date Report Requested: 09/08/2011
 Time Report Requested: 08:22:41
 First Dose M/F: 05/15/06 / 05/15/06
 Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE MALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 7 | 6 | 6 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 5 | 5 | 6 | 6 | 7 | 8 |
| 5.0 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder Lymphoma Malignant | | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | |
| | | 47 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ Lymphoma Malignant | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

*** END OF MALE DATA ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| B6C3F1 MICE FEMALE
control | DAY ON TEST | 0732 | 0733 | 0738 | 0764 | 0773 | 0777 | 0777 | 0764 | 0747 | 0777 | 0777 | 0777 | 0755 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0766 | 0774 | females
(cont...) |
| | ANIMAL ID | 0010 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder
Lymphoma Malignant | + | + | + | + | + | + | + | A | M | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | M | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | M | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum
Lymphoma Malignant | + | + | A | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum
Carcinoma
Lymphoma Malignant | + | + | A | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | A | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver
Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | | | | X | | | | | X | | | X | | | X | | | X | | | | |
| Hepatocellular Adenoma, Multiple | | | | | | | X | | X | | | | | | X | X | | | X | | X | X | | |
| Hepatocellular Carcinoma | | | | X | | X | | X | | | | | | | | X | | X | | | | | | |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | | X | | | | | | | | | |
| Lymphoma Malignant | | | | | | | X | X | | | | | | | | | | | | X | | | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | X | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
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2 | 0
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7 | 0
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2 | 0
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| ANIMAL ID | 0
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1 | |
| Mesentery
Lymphoma Malignant | | | + | | + | | | | | | + | | | + | | | + | + | + | | | | | | |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Salivary Glands
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Stomach, Forestomach
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Lymphoma Malignant | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adrenal Medulla
Lymphoma Malignant | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females
(cont...) | |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|--|
| | | 7 | 7 | 3 | 6 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | | | |
| | | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 9 | 9 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | | | |
| | | 2 | 3 | 3 | 9 | 1 | 1 | 2 | 7 | 1 | 2 | 3 | 1 | 9 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 1 | 3 | 2 | 9 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |

Pheochromocytoma Benign

Islets, Pancreatic

Parathyroid Gland

Pituitary Gland

Pars Distalis, Adenoma

Thyroid Gland

Follicular Cell, Adenoma

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland

Ovary

Cystadenoma

Lymphoma Malignant

Yolk Sac Carcinoma

Uterus

Histiocytic Sarcoma

Lymphoma Malignant

Polyp Stromal

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
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5 | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Lymph Node | | | | | | | | | | | + | | | | | | | | | | | | + | | + | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Iliac, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Carcinoma, Metastatic, Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | + | M | M | M | M | + | + | + | + | M | M | M | + | + | + | + | + | + | M | M | M | + | M | M | + | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | X | | | | | | | | | | | |
| Lymph Node, Mandibular | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | X | | X | | | | | | | | | | X | | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Lymph Node, Mediastinal | + | M | A | + | + | + | M | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | + | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Lymphoma Malignant | | | | | | | | | | | X | | X | | | | | | | | | | X | | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Lymph Node, Mesenteric | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | X | | X | | | X | | | | | | X | | X | | |
| Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Spleen | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0732 | 0733 | 0738 | 0734 | 0733 | 0733 | 0739 | 0739 | 0731 | 0732 | 0733 | 0733 | 0731 | 0739 | 0733 | 0733 | 0733 | 0732 | 0733 | 0732 | 0731 | 0731 | 0733 | 0732 | 0739 | |
| ANIMAL ID | 0010 | 0011 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | |
| Hemangiosarcoma | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | X | X | | X | | | X | | | | | | | X | | | X | | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Lymphoma Malignant | | | | | | | X | X | | | | | | | | | | | | X | | | | | | |
| Neoplasm Nos | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Subcutaneous Tissue, Neural Crest Tumor | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Larynx | + | + | A | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| B6C3F1 MICE FEMALE | 0
7
3
2 | 0
7
3
3 | 0
3
8
3 | 0
6
4
9 | 0
7
3
1 | 0
7
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1 | 0
7
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2 | 0
6
9
7 | 0
4
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9 | 0
7
3
1 | 0
7
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2 | 0
7
3
3 | 0
7
3
1 | 0
5
9
9 | 0
7
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3 | 0
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3
2 | 0
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3 | 0
7
3
1 | 0
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1 | 0
7
3
3 | 0
6
4
9 | | | |
| control | 0
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1 | 0
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1
0
2 | 0
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3 | 0
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1
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4 | 0
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7 | 0
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8 | 0
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9 | 0
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0 | 0
0
1
2
1 | 0
0
1
2
2 | 0
0
1
2
3 | 0
0
1
2
4 | 0
0
1
2
5 | |
| ANIMAL ID | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |
| Lung | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Alveolar/Bronchiolar Adenoma | X | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | X | | | | | | | | | | X | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | X | | | | | | | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Trachea | + | + | A | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Harderian Gland | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|-------------------------------|-------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 3 | 6 | 7 | 7 | 7 | 6 | 4 | 7 | 7 | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | |
| | 3 | 3 | 8 | 4 | 3 | 3 | 3 | 9 | 9 | 3 | 3 | 3 | 3 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 9 | |
| | 2 | 3 | 3 | 9 | 1 | 1 | 2 | 7 | 9 | 1 | 2 | 3 | 1 | 9 | 3 | 3 | 3 | 2 | 3 | 2 | 1 | 1 | 3 | 2 | 9 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | X | X | | X | | X | | | | | | X | | X | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|-------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 7 | 2 | 7 | 7 | 5 | 5 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 7 | 7 | 7 | 2 | 7 | 7 | 7 | 7 | |
| | | 3 | 2 | 3 | 3 | 2 | 8 | 3 | 9 | 3 | 0 | 5 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 3 | 3 | 2 | 3 | 3 | 3 | 8 | 2 | 1 | 5 | 1 | 1 | 3 | 3 | 0 | 2 | 2 | 5 | 2 | 1 | 2 | 1 | 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 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Gallbladder
Lymphoma Malignant | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 44
3 |
| Intestine Large, Cecum | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Intestine Large, Colon | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Intestine Large, Rectum | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Intestine Small, Duodenum
Lymphoma Malignant | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45
1 |
| Intestine Small, Ileum
Carcinoma
Lymphoma Malignant | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45
1
1 |
| Intestine Small, Jejunum | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Liver
Hemangiosarcoma
Hepatocellular Adenoma
Hepatocellular Adenoma, Multiple
Hepatocellular Carcinoma
Hepatocellular Carcinoma, Multiple
Lymphoma Malignant
Mast Cell Tumor Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2
9
10
6
4
9
1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------|--------------|
| | 0
7
3
2 | 0
2
2
3 | 0
7
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3 | 0
7
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2 | 0
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3 | 0
5
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3 | 0
7
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3 | 0
6
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8 | 0
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3
2 | 0
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1 | 0
6
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5 | 0
7
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1 | 0
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1 | 0
7
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3 | 0
4
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0 | 0
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5 | 0
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2 | 0
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1 | 0
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1 | 0
7
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3 | 0
7
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3 | | | |
| ANIMAL ID | 0
0
1
2
6 | 0
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1
2
7 | 0
0
1
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8 | 0
0
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2
9 | 0
0
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3
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2 | 0
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3 | 0
0
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4 | 0
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5 | 0
0
1
3
6 | 0
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7 | 0
0
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3
8 | 0
0
1
3
9 | 0
0
1
4
0 | 0
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1
4
1 | 0
0
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4
2 | 0
0
1
4
3 | 0
0
1
4
4 | 0
0
1
4
5 | 0
0
1
4
6 | 0
0
1
4
7 | 0
0
1
4
8 | 0
0
1
4
9 | 0
0
1
5
0 | | |
| Mesentery
Lymphoma Malignant | + | | + | | | | | + | + | | | | | + | | | | | + | + | + | | | | + | 18
1 | |
| Pancreas
Lymphoma Malignant
Sarcoma, Metastatic, Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
4
1 | |
| Salivary Glands
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| Stomach, Forestomach
Lymphoma Malignant
Squamous Cell Papilloma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1
1 | |
| Stomach, Glandular | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1
2 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 |
| Adrenal Medulla
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|-------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0732 | 0273 | 0773 | 0773 | 0552 | 0553 | 0776 | 0677 | 0779 | 0773 | 0676 | 0773 | 0773 | 0773 | 0773 | 0474 | 0773 | 0772 | 0773 | 0773 | 0773 | 0773 | 0773 | | |
| ANIMAL ID | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | |
| Pheochromocytoma Benign | | | | | | | X | | | | | | | | | | | | | | | | | 1 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | + | + | M | + | M | M | + | + | + | + | + | + | M | + | + | M | M | M | M | + | + | + | M | 28 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | 47 | |
| Pars Distalis, Adenoma | | | X | | | | | | | | | | | | | | | | | | | | | 3 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | M | + | + | + | M | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | M | + | 43 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Cystadenoma | X | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | X | | X | | | | | | | | | | | | | | 2 | |
| Yolk Sac Carcinoma | | | | | | | | | | | | | | X | | | | | | | | | | 1 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Lymphoma Malignant | | | | | | | | X | | X | | | | | | | | | | | | | | 3 | |
| Polyp Stromal | | X | | | | | | | | | | | | | X | | | | | | | | | 2 | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0732 | 0223 | 0073 | 0073 | 0052 | 0055 | 0076 | 0067 | 0077 | 0067 | 0077 | 0077 | 0077 | 0044 | 0077 | 0077 | 0022 | 0077 | 0077 | 0033 | 0033 | 0033 | 0033 | | |
| ANIMAL ID | 00126 | 00127 | 00128 | 00129 | 00130 | 00131 | 00132 | 00133 | 00134 | 00135 | 00136 | 00137 | 00138 | 00139 | 00140 | 00141 | 00142 | 00143 | 00144 | 00145 | 00146 | 00147 | 00148 | 00149 | 00150 |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | X | | | 2 |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node | | | | | + | | | + | + | + | | | | + | + | | | | | | + | | + | | 11 |
| Axillary, Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Iliac, Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | X | | | 2 |
| Lumbar, Carcinoma, Metastatic, Kidney | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | X | | X | | | | | | | | | | | | | | 3 |
| Renal, Lymphoma Malignant | | | | | | | | | X | X | X | | | | | | | | | | | | | | 4 |
| Lymph Node, Bronchial | M | M | M | M | + | + | M | M | + | + | + | M | M | M | + | M | M | + | M | + | M | M | M | M | 22 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | X | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | X | X | | | | | | | | | | X | X | | | 6 |
| Lymph Node, Mandibular | + | + | M | + | + | + | M | + | + | + | M | + | M | M | + | + | M | + | + | + | + | M | M | M | 40 |
| Lymphoma Malignant | | | | | | | | X | X | X | | | | | | | | | X | X | X | | | | 9 |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mediastinal | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | 42 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | X | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | X | X | | | | | | | | | X | X | X | X | | 9 |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | X | X | X | X | | | | | | | | | X | X | X | X | | | 13 |
| Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--|----------|
| | 0
7 | 0
2 | 0
7 | 0
7 | 0
5 | 0
5 | 0
7 | 0
6 | 0
7 | 0
7 | 0
6 | 0
7 | 0
7 | 0
7 | 0
7 | 0
4 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | 0
7 | | |
| ANIMAL ID | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 0
0 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | X | | | | | 2 | | |
| Lymphoma Malignant | | | | | | | | X | X | X | X | | | | | | | | | | X | X | | 12 | | |
| Mast Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Thymus | + | + | + | + | + | M | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | 46 | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymphoma Malignant | | | | | | | | | X | X | X | | | | | | X | | X | X | X | | 10 | | | |
| Neoplasm Nos | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + | 48 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Skin | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Subcutaneous Tissue, Neural Crest Tumor | | | | | | | X | | | | | | | | | | | | | | | | | 1 | | |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | | | | | | | | | | X | | 2 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Larynx | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | X | | | X | | X | | 3 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
control | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0732 | 0223 | 0773 | 0773 | 0522 | 0558 | 0733 | 0698 | 0773 | 0773 | 0673 | 0773 | 0773 | 0773 | 0473 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | 0773 | |
| ANIMAL ID | 00126 | 00017 | 00018 | 00019 | 00020 | 00021 | 00022 | 00023 | 00024 | 00025 | 00026 | 00027 | 00028 | 00029 | 00030 | 00031 | 00032 | 00033 | 00034 | 00035 | 00036 | 00037 | 00038 | 00039 | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | 3 | |
| Alveolar/Bronchiolar Carcinoma | | | X | | | X | | | | | | | | | | | | X | | | | | | 4 | |
| Alveolar/Bronchiolar Carcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hepatocellular Carcinoma, Metastatic, Liver | X | | X | | | | | | | X | | | | | | | | | | | | | | 5 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Lymphoma Malignant | | | | | | | | X | X | X | | | | | | | | | | | | | | 5 | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Harderian Gland Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| | X | | | | | | | | | | | | | | X | | | | | | | | | 3 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | X | X | X | | | | | | | | | | | X | | | 5 | |
| Transitional Epithelium, Carcinoma | | | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | | | | | | | X | X | | | | | | | | | | | | | | | 3 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| B6C3F1 MICE FEMALE
control | DAY ON TEST | 07 | 02 | 07 | 07 | 05 | 05 | 07 | 06 | 07 | 07 | 06 | 07 | 07 | 07 | 07 | 04 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | * TOTALS |
| | ANIMAL ID | 32 | 33 | 33 | 32 | 33 | 33 | 33 | 38 | 22 | 11 | 55 | 33 | 33 | 33 | 33 | 00 | 33 | 33 | 22 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | X | X | X | X | | | | | | | | X | | X | X | X | | | | | | | | 14 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|---|--|
| | 0733 | 0733 | 0713 | 0733 | 0733 | 0733 | 0734 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | 0733 | | | |
| ANIMAL ID | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | | |
| Sarcoma | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Salivary Glands Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Stomach, Forestomach Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Stomach, Glandular Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | M | + | M | + | + | M | M | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|----------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0733 | 0733 | 0713 | 0733 | 0733 | 0732 | 0769 | 0773 | 0773 | 0773 | 0773 | 0773 | 0666 | 0773 | 0773 | 0666 | 0667 | 0557 | 0773 | 0773 | 0773 | 0773 | 0773 | 0666 | | |
| ANIMAL ID | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | + | + | + | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cystadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| B6C3F1 MICE FEMALE

1.25 mg/m3 | DAY ON TEST | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 7 | 7 | 7 | 6 | | |
| | | 3 | 3 | 1 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 3 | 6 | 3 | 3 | 3 | 9 | 3 | 0 | 3 | 3 | 3 | 3 | 5 | | |
| | ANIMAL ID | 3 | 3 | 2 | 3 | 2 | 2 | 9 | 3 | 1 | 2 | 1 | 3 | 3 | 1 | 3 | 3 | 8 | 8 | 2 | 6 | 2 | 2 | 1 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | | |

INTEGUMENTARY SYSTEM

Mammary Gland

+ +

Skin
Subcutaneous Tissue, Hemangiosarcoma
Subcutaneous Tissue, Sarcoma
Subcutaneous Tissue, Sarcoma, Multiple

+

X

X

MUSCULOSKELETAL SYSTEM

Bone

+ +

Skeletal Muscle
Lymphoma Malignant
Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung

+
X

NERVOUS SYSTEM

Brain
Lymphoma Malignant

+

X

RESPIRATORY SYSTEM

Larynx

+ +

Lung
Alveolar/Bronchiolar Adenoma
Alveolar/Bronchiolar Adenoma, Multiple
Alveolar/Bronchiolar Carcinoma

+

X X

X X X X X X X X X X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0733 | 0733 | 0713 | 0733 | 0733 | 0733 | 0764 | 0773 | 0773 | 0773 | 0773 | 0773 | 0766 | 0773 | 0773 | 0766 | 0766 | 0773 | 0755 | 0773 | 0773 | 0773 | 0773 | 0766 | | | |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | | |
| | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | 3300 | | | |
| | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | | |
| Alveolar/Bronchiolar Carcinoma, Multiple
Hepatocellular Carcinoma, Metastatic, Liver
Lymphoma Malignant | X | | | | | | | X | | | | | | | X | | | X | | X | | | | | X | | |
| Nose
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | X | X | | | | | | | | |
| Pleura
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye
Carcinoma, Metastatic, Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | | |
| Harderian Gland
Adenoma
Carcinoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | X | | | X | | | | | | | | | | | | | | | | | X | | | | |
| Zymbal's Gland | | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | | | | | | | | | | | | | | | | | X | X | | | | | | X | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

TDMS No. 60311 - 06
Test Type: CHRONIC
Route: RESPIRATORY EXPOSURE WHOLE BODY
Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Cobalt
CAS Number: 7440-48-4

Date Report Requested: 09/08/2011
Time Report Requested: 08:22:41
First Dose M/F: 05/15/06 / 05/15/06
Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | | |
|---------------------------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------|------|------|------|------|------|------|--|
| | 0733 | 0733 | 0772 | 0773 | 0773 | 0773 | 0764 | 0773 | 0773 | 0773 | 0773 | 0773 | 0763 | 0773 | 0773 | 0768 | 0768 | 0772 | 0756 | 0773 | | 0773 | 0773 | 0773 | 0773 | 0765 | 0766 | |
| 1.25 mg/m3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | 0030 | |
| Urinary Bladder | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | X | | | | | | X | | | | X | X | X | X | X | | | | | | | X | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|-----------------------|-----------------------|
| B6C3F1 MICE FEMALE

1.25 mg/m3 | DAY ON TEST | 0
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1 | 0
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9
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7 | 0
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2 | 0
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4 | 0
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5 | 0
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1 | 0
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3 | 0
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3 | 0
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2 | 0
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7
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3 | 0
7
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3 | * TOTALS | | |
| | ANIMAL ID | 0
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6 | 0
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7 | 0
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8 | 0
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9 | 0
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9 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Gallbladder
Lymphoma Malignant | + | + | A | + | + | + | + | X | + | + | + | + | M | + | + | + | + | + | + | I | A | + | + | + | + | 41
2 |
| Intestine Large, Cecum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Large, Colon | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Large, Rectum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Intestine Small, Duodenum | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47 |
| Intestine Small, Ileum
Lymphoma Malignant | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 46
1 |
| Intestine Small, Jejunum
Carcinoma | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 47
1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatocellular Adenoma | | | | X | | | | | X | | | X | | X | | X | | X | | | | | | | | 13 |
| Hepatocellular Adenoma, Multiple | | | | | | | X | | | | | | | | | | | | X | | | | | | | 5 |
| Hepatocellular Carcinoma | | | | | | | X | | | | | | | | | | | | | | | X | X | | | 4 |
| Hepatocellular Carcinoma, Multiple | | | | | | | | | | | | | | X | | | | X | | | | | | | | 3 |
| Hepatocholeangiocarcinoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | X | X | | | X | X | X | | | | | | | | | | | | | 8 |
| Mesentery | | | + | | + | | | | | + | | | | + | + | | | | + | | | | | | | 13 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
1.25 mg/m3 | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|----------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 3 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 3 | 3 | 3 | 7 | 3 | 3 | 9 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | |
| | | 7 | 1 | 1 | 3 | 1 | 3 | 1 | 1 | 7 | 2 | 2 | 4 | 5 | 1 | 3 | 1 | 2 | 2 | 1 | 3 | 2 | 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 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 9 | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | 3 |
| Salivary Glands | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | X | | | | | | | | | | 3 |
| Stomach, Forestomach | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | 2 |
| Stomach, Glandular | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | 2 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 2 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pheochromocytoma Benign | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Parathyroid Gland | | + | M | M | M | M | M | + | + | M | + | M | M | M | M | + | + | M | M | M | + | + | M | M | 28 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|------------------|------------------|------------------|----------|--|
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3 | * TOTALS | |
| 1.25 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | | |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 0 | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pars Distalis, Adenoma | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Pars Intermedia, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Cystadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | X | | | | | | | | | | | | | 4 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | 4 | |
| Polyp Stromal | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| Endometrium, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE FEMALE
1.25 mg/m3 | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|----|
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| ANIMAL ID | | 0
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| | | Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | + | | | | | | | + | | | | | | | | | | | 8 |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | | | | | 2 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | X | | | | | | | X | | | | | | | | | | | 4 |
| Lymph Node, Bronchial | | M | + | + | M | M | + | + | + | M | M | + | + | + | + | M | + | M | M | M | + | M | M | + | + | + | 33 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | X | | | X | | X | | X | | | | | | | | | | 10 |
| Lymph Node, Mandibular | | M | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | 41 | |
| Lymphoma Malignant | | | | | | | | | | X | | | X | | X | | X | | X | | | | | | | | | 8 |
| Lymph Node, Mediastinal | | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | M | M | + | + | M | + | M | + | 39 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | X | X | X | | X | X | X | | | | | | | | | | | | | 12 |
| Lymph Node, Mesenteric | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | | | | | | | | X | X | | | X | X | X | | | | | | | | | | | | | 11 |
| Sarcoma, Metastatic, Skin | | | | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Spleen | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hemangioma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | X | | X | | X | X | X | | | | | | | | | | | | | 11 |
| Thymus | | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Lymphoma Malignant | | | | | | | | X | X | X | | X | X | X | | | | | | | | | | | | | | 11 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
1.25 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|--|
| | 0
5
3
7 | 0
7
3
1 | 0
7
3
1 | 0
7
3
1 | 0
6
7
3 | 0
7
3
1 | 0
7
3
1 | 0
3
9
1 | 0
5
3
7 | 0
7
3
2 | 0
7
3
2 | 0
6
1
4 | 0
5
0
5 | 0
7
3
1 | 0
7
3
1 | 0
7
3
2 | 0
7
3
2 | 0
6
8
1 | 0
7
3
3 | 0
7
3
2 | 0
7
3
0 | 0
7
3
2 | 0
7
3
3 | 0
7
3
3 | | | |
| ANIMAL ID | 0
3
2
6 | 0
0
3
7 | 0
0
3
8 | 0
0
3
9 | 0
0
3
0 | 0
0
3
1 | 0
0
3
2 | 0
0
3
3 | 0
0
3
4 | 0
0
3
5 | 0
0
3
6 | 0
0
3
7 | 0
0
3
8 | 0
0
3
9 | 0
0
4
0 | 0
0
4
1 | 0
0
4
2 | 0
0
4
3 | 0
0
4
4 | 0
0
4
5 | 0
0
4
6 | 0
0
4
7 | 0
0
4
8 | 0
0
4
9 | 0
0
5
0 | | |
| Alveolar/Bronchiolar Carcinoma, Multiple | | | | | | | | | | | | | | | | | | X | X | X | | | | | 7 | | |
| Hepatocellular Carcinoma, Metastatic, Liver | | | | | | | | | | | | | | X | | | | | | | | | | | 2 | | |
| Lymphoma Malignant | | | | | | | X | | X | | X | X | | | | | | | | | | | | | 9 | | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Lymphoma Malignant | | | | | | | X | | | | | X | | | | | | | | | | | | | 4 | | |
| Pleura | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | X | | | | 1 | | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 46 | | |
| Carcinoma, Metastatic, Harderian Gland | | | | | | | X | | | | | | | | | | | | | | | | | 1 | | | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | X | X | | | 5 | | | |
| Carcinoma | | | | | | | X | | | | X | | | | | | | | | | | | | 2 | | | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | 2 | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Lymphoma Malignant | | | | | | | X | | | | | X | X | X | | | | | | | | | | 7 | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 3 | 5 | 7 | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | |
| | | 3 | 3 | 3 | 3 | 7 | 3 | 3 | 9 | 3 | 3 | 3 | 1 | 0 | 3 | 3 | 3 | 3 | 3 | 8 | 3 | 3 | 3 | 3 | 3 | |
| 1.25 mg/m3 | | 7 | 1 | 1 | 1 | 3 | 1 | 3 | 1 | 1 | 7 | 2 | 2 | 4 | 5 | 1 | 3 | 1 | 2 | 2 | 1 | 3 | 2 | 0 | 2 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | |
| | | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | X | | | | | | | | | | | 4 |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | X | | X | X | | X | X | X | | | | | | | | | | | 14 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
2.5 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0733 | 0733 | 0733 | 0593 | 0577 | 0566 | 0555 | 0577 | 0577 | 0556 | 0567 | 0577 | 0577 | 0555 | 0566 | 0577 | 0577 | 0577 | 0577 | 0558 | 0573 | 0573 | | | 0562 |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |
| | 5501 | 5502 | 5503 | 5504 | 5505 | 5506 | 5507 | 5508 | 5509 | 5510 | 5511 | 5512 | 5513 | 5514 | 5515 | 5516 | 5517 | 5518 | 5519 | 5520 | 5521 | 5522 | 5523 | 5524 | 5525 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder | + | + | + | + | + | + | + | + | + | I | + | + | + | M | M | + | M | + | + | A | M | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | X | | | | | | | | | | | | X | | | X | | | | | | |
| Hepatocellular Adenoma, Multiple | | | | | | | | X | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | | | | | X | | | | X | | | | | | | | | | X | |
| Histiocytic Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | |
| Lymphoma Malignant | | X | X | | | X | | | X | | | X | | | X | | | | | | | | X | |
| Mesentery | | | | | | + | + | + | | | | + | | + | | | | | | | | + | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | X | | | X | | | | | | | | | X | | | | | | | | X | X |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0733 | 0733 | 0733 | 0593 | 0577 | 0672 | 0573 | 0773 | 0773 | 0571 | 0668 | 0771 | 0773 | 0573 | 0673 | 0773 | 0773 | 0578 | 0773 | 0773 | 0683 | 0773 | 0676 | 0575 | | |
| 2.5 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0050 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | X | |
| Stomach, Forestomach
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Stomach, Glandular
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart
Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Lymphoma Malignant
Subcapsular, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | M | M | + | M | + | + | + | M | + | M | M | M | + | + | + | M | + | M | + | M | + | + | M | |
| Pituitary Gland
Pars Distalis, Adenoma | + | + | + | + | + | M | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|---|------|---|--------------------------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0733 | 0733 | 0733 | 0597 | 0577 | 0656 | 0577 | 0773 | 0756 | 0773 | 0567 | 0675 | 0773 | 0773 | 0773 | 0773 | 0773 | 0575 | 0773 | 0773 | 0665 | 0553 | | | | |
| | ANIMAL ID | 0050 | 0055 | 0053 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | | 0055 | | |
| 2.5 mg/m3 | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | females (cont...) |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | X | | | | | X | | | | X | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lymph Node | | | | | | | | | | | | + | | | | | | | | | | | + | | | | | | + | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Iliac, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pancreatic, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|--|
| | 0733 | 0733 | 0733 | 0593 | 0577 | 0562 | 0573 | 0573 | 0556 | 0563 | 0559 | 0571 | 0567 | 0573 | 0567 | 0573 | 0573 | 0573 | 0583 | 0571 | | | 0573 | 0566 | 0553 | |
| 2.5 mg/m3 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | | |
| | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | 550 | | |
| | 001 | 002 | 003 | 004 | 005 | 006 | 007 | 008 | 009 | 010 | 011 | 012 | 013 | 014 | 015 | 016 | 017 | 018 | 019 | 020 | 021 | 022 | 023 | 024 | 025 | |
| Renal, Lymphoma Malignant | | | | | | | | X | | | X | | | | | | | | X | | | | | X | | |
| Lymph Node, Bronchial
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | M | + | + | M | M | + | + | + | M | M | + | + | + | + | + | + | + | + | + | M | + | + | M | M | |
| Lymphoma Malignant | | | X | | | | | | | | | X | | | X | | | | X | | | | | | | |
| Lymph Node, Mandibular
Lymphoma Malignant | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | |
| Lymphoma Malignant | | | X | | | | | | | | | X | | | X | | | | | | | | | | X | |
| Lymph Node, Mediastinal
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | M | + | M | M | + | + | + | |
| Lymphoma Malignant | | | X | | | X | | | | | | X | | | X | | | | X | | | | | | X | |
| Lymph Node, Mesenteric
Histiocytic Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | |
| Lymphoma Malignant | | X | X | | | | | | X | | | X | | | X | | | | X | | | | | X | X | |
| Spleen
Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | |
| Lymphoma Malignant | | X | X | | | X | | | X | | | X | | | X | | | | X | | | | | X | X | |
| Thymus
Lymphoma Malignant | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Osteosarcoma, Metastatic, Bone | | | X | | | | | | | | | X | | | X | | | | | | X | | | X | X | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | X | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|
| | 0
7
3
3 | 0
7
3
3 | 0
7
3
3 | 0
5
9
3 | 0
5
7
1 | 0
6
7
7 | 0
5
6
2 | 0
7
3
3 | 0
7
3
2 | 0
5
9
1 | 0
6
7
8 | 0
7
1
2 | 0
7
0
3 | 0
5
6
1 | 0
6
7
6 | 0
7
3
2 | 0
7
3
2 | 0
5
8
7 | 0
7
3
1 | 0
7
3
3 | 0
5
8
2 | 0
7
3
2 | 0
6
3
1 | | |
| 2.5 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0
5
0
1 | 0
5
0
2 | 0
5
0
3 | 0
5
0
4 | 0
5
0
5 | 0
5
0
6 | 0
5
0
7 | 0
5
0
8 | 0
5
0
9 | 0
5
0
0 | 0
5
0
1 | 0
5
0
2 | 0
5
0
3 | 0
5
0
4 | 0
5
0
5 | 0
5
0
6 | 0
5
0
7 | 0
5
0
8 | 0
5
0
9 | 0
5
0
0 | 0
5
0
1 | 0
5
0
2 | 0
5
0
3 | 0
5
0
4 | |

Skin
Subcutaneous Tissue, Sarcoma + + + + + + + + + + X + + + + + + + + + + + + + + + X

MUSCULOSKELETAL SYSTEM

Bone
Osteosarcoma + X + + + + +
Vertebra, Schwannoma Malignant, Metastatic, Peripheral Nerve

Skeletal Muscle
Thoracic, Alveolar/Bronchiolar Carcinoma, Metastatic, Lung + X

NERVOUS SYSTEM

Brain +
Peripheral Nerve
Schwannoma Malignant

RESPIRATORY SYSTEM

Larynx +
Lung
Alveolar/Bronchiolar Adenoma + + + + + + + + + + + + + + + + + X + + + + + X
Alveolar/Bronchiolar Carcinoma X
Alveolar/Bronchiolar Carcinoma, Multiple X
Hepatocellular Carcinoma, Metastatic, Liver X
Histiocytic Sarcoma X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0733 | 0733 | 0733 | 0593 | 0577 | 0662 | 0573 | 0773 | 0773 | 0567 | 0677 | 0773 | 0567 | 0677 | 0773 | 0773 | 0567 | 0677 | 0773 | 0773 | 0567 | 0677 | 0773 | 0773 | | |
| 2.5 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
| | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | 0050 | |
| Lymphoma Malignant | | | | | | | | | X | | | X | | | | X | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | X | | | X | |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Trachea | + | + | + | + | I | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | X | | | | | | | | | | | | | | X | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | + | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | X | | | | | | | X | X | |
| Urinary Bladder | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | X | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE FEMALE
2.5 mg/m3 | DAY ON TEST | 0733 | 0733 | 0733 | 0597 | 0577 | 0656 | 0577 | 0775 | 0775 | 0567 | 0677 | 0567 | 0775 | 0677 | 0775 | 0775 | 0775 | 0775 | 0577 | 0775 | 0677 | 0567 | 0775 | females
(cont...) |
|---------------------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | ANIMAL ID | 0030 | 0030 | 0030 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | |
| Lymphoma Malignant | | X | X | | X | | X | | X | | X | | X | | X | | X | | X | | X | X | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|------------------|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0733 | 0646 | 0533 | 0709 | 0733 | 0733 | 0733 | 0733 | 0673 | 0573 | 0740 | 0667 | 0773 | 0773 | 0773 | 0676 | 0773 | 0773 | 0773 | 0773 | 0573 | 0773 | * TOTALS |
| | 2.5 mg/m3 | 0052 | 0052 | 0052 | 0052 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | 0053 | |
| | ANIMAL ID | 67890123456789012345678901234567890 | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Gallbladder | + | M | + | + | I | + | I | + | + | + | + | + | + | M | + | + | A | + | + | + | + | + | I | + | 38 |
| Intestine Large, Cecum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 |
| Intestine Large, Rectum | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 48 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 49 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | X | | | | | | X | | | | | | | | X | | | 6 | |
| Hepatocellular Adenoma, Multiple | | X | | | | X | | | | | | | | | | X | | | | | | | | 4 | |
| Hepatocellular Carcinoma | | X | | | | | | | | | | | | | | | | | | | X | | | 5 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | 8 | |
| Mesentery | | | | | | | | | | | | | | + | + | + | + | | | | | | | 10 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------------|---------|
| | 0733 | 0646 | 0533 | 0709 | 0733 | 0771 | 0772 | 0773 | 0653 | 0573 | 0774 | 0466 | 0777 | 0773 | 0773 | 0671 | 0733 | 0733 | 0733 | 0573 | | 0773 | |
| 2.5 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| | 00526 | 00552 | 00552 | 00552 | 00553 | 00553 | 00553 | 00553 | 00553 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | 00555 | | 00555 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Stomach, Forestomach Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| Stomach, Glandular Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49
1 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Heart Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | 50
1 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex Lymphoma Malignant Subcapsular, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1
2 | |
| Adrenal Medulla Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | 49
1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Parathyroid Gland | M | M | M | + | + | + | + | M | M | M | M | + | + | + | M | + | + | M | M | M | M | 24 | |
| Pituitary Gland Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
| | 0733 | 0646 | 0533 | 0709 | 0733 | 0731 | 0732 | 0733 | 0673 | 0573 | 0733 | 0745 | 0666 | 0773 | 0773 | 0773 | 0676 | 0773 | 0773 | 0773 | | 0575 | 0773 | | | |
| 2.5 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
| | 00526 | 00527 | 00528 | 00529 | 00530 | 00531 | 00532 | 00533 | 00534 | 00535 | 00536 | 00537 | 00538 | 00539 | 00540 | 00541 | 00542 | 00543 | 00544 | 00545 | | 00546 | 00547 | 00548 | 00549 | 00550 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lymph Node, Bronchial
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | + | + | + | M | + | + | + | M | + | + | + | M | + | M | + | M | + | + | M | M | + | + | | | 34 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 5 |
| Lymph Node, Mandibular
Lymphoma Malignant | M | + | M | M | + | + | + | M | + | + | + | + | M | + | + | + | + | M | + | + | + | M | + | M | + | 38 |
| Lymph Node, Mediastinal
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | X | | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | X | | 8 |
| Lymph Node, Mesenteric
Histiocytic Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | A | + | + | + | + | + | + | 47 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | X | | 10 |
| Spleen
Hemangiosarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 48 | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | X | X | X | | 1 |
| Thymus
Lymphoma Malignant | + | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | A | + | + | + | + | + | 46 | |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | 5 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS | |
| | ANIMAL ID | 7 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 5 | 7 | 7 | 4 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 5 | | 7 |
| 2.5 mg/m3 | | 3 | 4 | 3 | 0 | 3 | 3 | 3 | 7 | 9 | 3 | 0 | 5 | 9 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 9 | 3 | |
| | | 3 | 6 | 3 | 9 | 3 | 1 | 2 | 3 | 7 | 3 | 2 | 9 | 7 | 8 | 3 | 3 | 6 | 2 | 1 | 2 | 2 | 3 | 2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 6 |
| Osteosarcoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | | 48 |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | | 49 |
| Adenoma | | | X | | | | | | | | | | | | | | | X | | | | | | | | | 4 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | 5 |
| Urinary Bladder | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0354 | 0732 | 0662 | 0778 | 0679 | 0772 | 0771 | 0561 | 0678 | 0772 | 0773 | 0660 | 0773 | 0773 | 0554 | 0664 | 0660 | 0772 | 0773 | 0550 | 0553 | 0773 | 0771 | females
(cont...) |
| | ANIMAL ID | 00701 | 00702 | 00703 | 00704 | 00705 | 00706 | 00707 | 00708 | 00709 | 00710 | 00711 | 00712 | 00713 | 00714 | 00715 | 00716 | 00717 | 00718 | 00719 | 00720 | 00721 | 00722 | 00723 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Gallbladder | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Rectum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Duodenum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Jejunum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | + | | | | | + | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 6 | 6 | 6 | 7 | 7 | 5 | 5 | 7 | 5 | 7 | 5 | 7 | 5 | |
| | | 5 | 3 | 6 | 3 | 1 | 0 | 3 | 3 | 7 | 1 | 3 | 3 | 3 | 6 | 3 | 3 | 5 | 0 | 8 | 6 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 4 | 2 | 3 | 2 | 8 | 9 | 2 | 1 | 1 | 8 | 2 | 1 | 2 | 0 | 3 | 3 | 4 | 4 | 4 | 0 | 2 | 3 | 3 | 5 | 3 | 3 | 1 | 3 | 3 | 3 | 1 |
| 5.0 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |

females
(cont...)

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | | |
| Adrenal Medulla Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | M | + | M | M | + | M | + | + | M | + | + | + | + | + | M | + | + | + | M | + | + | + | M | M | + | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland Follicular Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 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 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 5 | 5 | 7 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 5.0 mg/m3 | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

females
(cont...)

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | + | M | + | + | + | M | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cystadenoma | | | | | | | | | | X | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Bronchial | + | + | M | M | M | + | + | + | + | M | M | M | M | M | + | M | M | + | + | M | + | + | M | M | M | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
5.0 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------|----------------------|--|
| | 0
3
5
4 | 0
7
3
2 | 0
6
6
3 | 0
7
3
2 | 0
6
1
8 | 0
7
0
9 | 0
7
3
2 | 0
7
3
1 | 0
5
7
1 | 0
6
1
8 | 0
7
3
2 | 0
7
3
1 | 0
6
3
0 | 0
7
3
3 | 0
7
3
3 | 0
6
6
0 | 0
6
5
4 | 0
6
8
4 | 0
6
6
0 | 0
7
3
2 | 0
7
3
3 | 0
5
0
5 | 0
5
3
3 | 0
7
3
1 | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | M | M | + | M | + | M | + | M | + | M | M | M | + | + | + | + | | | |
| Lymph Node, Mediastinal
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung
Lymphoma Malignant | + | + | + | + | + | + | M | M | + | + | + | M | + | + | + | + | + | + | + | X | + | + | M | + | + | + | | |
| Lymph Node, Mesenteric
Lymphoma Malignant | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Spleen
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Thymus
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung
Lymphoma Malignant | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Skin
Subcutaneous Tissue, Hemangioma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|
| B6C3F1 MICE FEMALE | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) | | | |
| | ANIMAL ID | 3 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 7 | 6 | 7 | 7 | 5 | 6 | 6 | 6 | 7 | 7 | 5 | | 5 | 7 | |
| | 5.0 mg/m3 | 4 | 2 | 3 | 2 | 8 | 9 | 2 | 1 | 1 | 8 | 2 | 1 | 2 | 0 | 3 | 3 | 4 | 4 | 4 | 0 | 2 | 3 | 3 | | 0 | 3 | 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 | |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx | + | + | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | I | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Alveolar/Bronchiolar Adenoma | | | | | | X | | | | | | | | | X | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Alveolar/Bronchiolar Carcinoma | | | | | X | | | | | X | | X | X | | X | X | | | | | | | | X | |
| Alveolar/Bronchiolar Carcinoma, Multiple | | X | X | | | | X | X | X | X | | X | | X | | | X | X | X | X | | | X | | X |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | |

Pleura
Alveolar/Bronchiolar Carcinoma, Metastatic,
Lung

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0354 | 0732 | 0663 | 0773 | 0661 | 0770 | 0773 | 0773 | 0557 | 0661 | 0777 | 0777 | 0666 | 0776 | 0777 | 0665 | 0666 | 0668 | 0666 | 0773 | 0773 | 0550 | 0553 | 0770 | 0770 | | |
| 5.0 mg/m3 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | |
| | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | 7777 | | |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | |
| | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | 1234 | 5678 | 9012 | 3456 | 7890 | | |

Harderian Gland
Adenoma
Lymphoma Malignant

+
X X X

URINARY SYSTEM

Kidney
Alveolar/Bronchiolar Carcinoma, Metastatic, Lung
Lymphoma Malignant
Renal Tubule, Adenoma

+
X
X

Urinary Bladder
Lymphoma Malignant

+ +

SYSTEMIC LESIONS

Multiple Organ
Histiocytic Sarcoma
Lymphoma Malignant

+
X X X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE
5.0 mg/m3 | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---------------------------------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0732 | 0610 | 0732 | 0501 | 0772 | 0664 | 0552 | 0772 | 0664 | 0552 | 0772 | 0664 | 0552 | 0772 | 0664 | 0552 | 0772 | 0664 | 0552 | 0772 | 0664 | 0552 | 0772 | |
| ANIMAL ID | 00726 | 00727 | 00728 | 00729 | 00730 | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Gallbladder | + | A | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 46 | |
| Intestine Large, Cecum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Intestine Large, Colon | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Large, Rectum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Small, Duodenum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Small, Ileum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Intestine Small, Jejunum | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | X | | | | | 2 | |
| Hepatocellular Carcinoma | | | | X | | | | | | | | | | | X | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | | 1 | |
| Mesentery | + | | | | | | | | | + | | | | | | | | | | | | | + | + | + | 8 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | | 1 | |
| Salivary Glands | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---------|--|
| | 0732 | 0610 | 0732 | 0506 | 0773 | 0776 | 0658 | 0544 | 0733 | 0773 | 0773 | 0664 | 0773 | 0473 | 0776 | 0667 | 0773 | 0773 | 0673 | 0559 | 0556 | 0733 | 0773 | 0773 | | | |
| 5.0 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | 00726 | | 00726 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Stomach, Forestomach Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 50
1 | |
| Stomach, Glandular Lymphoma Malignant | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 49
1 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | X | | | | | | | X | | | | | | | | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex Lymphoma Malignant | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 48
1 | |
| Adrenal Medulla Lymphoma Malignant | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 48
1 | |
| Islets, Pancreatic | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Parathyroid Gland | M | M | + | + | + | + | + | M | M | + | + | + | M | M | + | M | + | + | + | I | + | + | + | M | + | 32 | |
| Pituitary Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Thyroid Gland Follicular Cell, Adenoma | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 49
1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

TDMS No. 60311 - 06

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: MICE/B6C3F1

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Cobalt

CAS Number: 7440-48-4

Date Report Requested: 09/08/2011

Time Report Requested: 08:22:41

First Dose M/F: 05/15/06 / 05/15/06

Lab: BNW

| B6C3F1 MICE FEMALE | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------|-------------|----|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|-----------------|
| | 07 | 06 | 07 | 05 | 07 | 07 | 06 | 05 | 07 | 07 | 07 | 06 | 07 | 04 | 07 | 06 | 07 | 07 | 06 | 05 | 05 | 07 | | 07 |
| 5.0 mg/m3 | 3 | 1 | 3 | 0 | 1 | 3 | 8 | 4 | 3 | 3 | 3 | 4 | 3 | 7 | 3 | 4 | 3 | 3 | 7 | 9 | 6 | 3 | 3 | 3 |
| | 2 | 0 | 2 | 6 | 3 | 2 | 4 | 2 | 2 | 3 | 3 | 5 | 3 | 8 | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 2 | 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 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 |
| | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Clitoral Gland | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 43 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cystadenoma | | | | | | | | | | | | | X | | | | | | | | | | | 3 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | | | | X | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | 1 | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | + | | | 1 | |
| Deep Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Lymph Node, Bronchial | + | M | + | + | M | M | M | + | + | + | M | + | M | + | + | M | + | M | M | M | M | + | M | M | 22 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|----------|---------|
| | 0732 | 0610 | 0732 | 0506 | 0773 | 0776 | 0658 | 0574 | 0773 | 0773 | 0674 | 0773 | 0473 | 0776 | 0673 | 0773 | 0773 | 0673 | 0593 | 0566 | 0773 | 0773 | 0773 | 0773 | | |
| 5.0 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| | 00726 | 00727 | 00728 | 00729 | 00730 | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymph Node, Mandibular Lymphoma Malignant | M | M | + | M | + | + | M | + | M | + | + | + | M | M | + | M | + | + | + | + | + | M | M | M | + | 31
1 |
| Lymph Node, Mediastinal Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
3 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lymph Node, Mesenteric Lymphoma Malignant | + | + | M | + | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | + | + | + | 47
2 | | |
| Spleen Lymphoma Malignant | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
3 | | |
| Thymus Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | + | + | + | + | + | + | M | + | + | + | + | M | I | + | + | + | + | + | + | + | + | + | + | 46
2 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skin Subcutaneous Tissue, Hemangioma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0732 | 0610 | 0732 | 0506 | 0772 | 0766 | 0554 | 0772 | 0773 | 0674 | 0773 | 0473 | 0776 | 0773 | 0473 | 0773 | 0773 | 0773 | 0673 | 0559 | 0566 | 0733 | 0733 | 0731 | | |
| 5.0 mg/m3 | 0026 | 0072 | 0078 | 0009 | 0001 | 0002 | 0003 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Larynx | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Adenoma | | | | | X | | | | | | X | X | | | | X | | | X | | X | X | | 9 |
| Alveolar/Bronchiolar Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma | X | | | X | X | | X | X | | | | | | X | X | X | | X | X | | X | X | | 19 |
| Alveolar/Bronchiolar Carcinoma, Multiple | | X | | | | X | X | | | X | X | X | X | | | | X | | X | | | | X | 24 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Nose | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Pleura | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Trachea | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Eye | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

| B6C3F1 MICE FEMALE | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| | 0
7
3
2 | 0
6
1
0 | 0
7
3
2 | 0
5
0
6 | 0
7
1
3 | 0
7
3
2 | 0
6
8
4 | 0
5
4
2 | 0
7
3
2 | 0
7
3
3 | 0
6
3
5 | 0
7
4
3 | 0
7
6
8 | 0
7
3
2 | 0
6
4
2 | 0
7
3
3 | 0
7
3
2 | 0
6
7
3 | 0
5
9
3 | 0
5
6
2 | 0
7
3
2 | 0
7
3
2 | 0
7
3
1 | |
| 5.0 mg/m3 | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
| 0
0
7
2
6 | 0
0
7
2
7 | 0
0
7
2
8 | 0
0
7
2
9 | 0
0
7
3
0 | 0
0
7
3
1 | 0
0
7
3
2 | 0
0
7
3
3 | 0
0
7
3
4 | 0
0
7
3
5 | 0
0
7
3
6 | 0
0
7
3
7 | 0
0
7
3
8 | 0
0
7
4
9 | 0
0
7
4
0 | 0
0
7
4
1 | 0
0
7
4
2 | 0
0
7
4
3 | 0
0
7
4
4 | 0
0
7
4
5 | 0
0
7
4
6 | 0
0
7
4
7 | 0
0
7
4
8 | 0
0
7
4
9 | |
| Harderian Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Alveolar/Bronchiolar Carcinoma, Metastatic, Lung | | X | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Renal Tubule, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Urinary Bladder | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | X | | | | 4 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically