

**Experiment Number:** 05083-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Wollastonite calcium silicates  
**CAS Number:** 13983-17-0

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 12:33:02  
**First Dose M/F:** NA / NA  
**Lab:** NORTHROP

<b>C Number:</b>	C55470B
<b>Lock Date:</b>	Not Entered.
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Male
<b>PWG Approval Date</b>	NONE

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Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0		
	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	7	6	6	5	0	3	5	7	0	3	0	7
	3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	0	
	7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	8	
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	
	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	
	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	2	2	3	3		
	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	

Alimentary System

Esophagus	+	+	+	+	+	+	+	+																								
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+											
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	A	A	+	+	+	+	+	+	+	+	+	+	+										
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+									
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+									
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+									
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+									
Bile Duct, Carcinoma																																
Fibrous Histiocytoma, Metastatic, Skin																																
Hepatocellular Adenoma																																
Hepatocyte, Adenoma	X		X																													
Leukemia Mononuclear	X			X	X	X	X		X		X						X		X	X		X			X		X	X				
Mesentery																																
Mesothelioma Malignant																																
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+									
Acinar Cell, Adenoma							X																									
Salivary Glands	+	+	+	+	+	+	+		M	M	+	+		+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+			
Carcinoma, Metastatic, Zymbal'S Gland																																
Fibrous Histiocytoma, Metastatic, Skin																																
Stomach																																

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F 344/N Rat 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	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	6	6	5	0	3	5	7	0	3	0	7	0	7	0	7	
		3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	9	0	7	0		
		7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	3	3	3	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	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	
		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	3	3	3	1	
		1	2	3	4	5	6	7	8	9	0	1	1	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4		
Stomach, Forestomach Leukemia Mononuclear		+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Stomach, Glandular Tongue		+	+	+	+	+	+	+	+	+	+	+	A	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
<b>Cardiovascular System</b>																																				
Heart Leukemia Mononuclear		+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	M	
					X																															
<b>Endocrine System</b>																																				
Adrenal Gland Capsule, Mesothelioma Malignant								+						+																						
Adrenal Gland, Cortex Adenoma								X						X																						
Adrenal Gland, Medulla Leukemia Mononuclear		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Pheochromocytoma Benign						X	X		X					X	X													X								
Islets, Pancreatic Adenoma		+				+																														
Parathyroid Gland Adenoma						X																														
Carcinoma		M	+	M	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M		
												X																								

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F 344/N Rat Male CONTROL	DAY ON TEST																													
	0 7 3 7	0 6 3 5	0 7 8 7	0 4 6 6	0 7 3 8	0 7 8 7	0 7 2 9	0 6 8 1	0 7 2 2	0 3 7 1	0 7 1 8	0 7 9 3	0 7 6 5	0 7 2 7	0 7 3 4	0 6 7 4	0 7 3 4	0 7 5 4	0 6 2 6	0 7 8 8	0 6 0 4	0 5 3 3	0 3 7 9	0 7 4 2	0 3 3 3	0 5 9 2	0 7 3 3	0 0 2 2	0 3 2 2	
ANIMAL ID	0 0 2 0 1	0 0 2 0 2	0 0 2 0 0	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 1	0 0 2 0 1	0 0 2 0 1	0 0 2 0 1	0 0 2 0 1	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2	0 0 2 0 2
Pituitary Gland	+	+	+	I	I	+	+		+	+	+	+		I	+		+	+	+	+	+	+	M		M	+	+		+	
Leukemia Mononuclear																														
Pars Distalis, Adenoma	X	X	X				X			X	X	X		X	X	X		X	X											
Thyroid Gland	+	+	+	+	M	+	+		+	M	+	+		A	+		+	+	+	+	+	+		M	+	+			M	
C Cell, Adenoma																														
C Cell, Carcinoma	X																													
<b>General Body System</b>																														
Tissue NOS					+		+						+																	
Carcinoma																														
Fat, Mesothelioma Malignant													X																	
Fibrosarcoma																														
Hemangiosarcoma							X																							
Leukemia Mononuclear				X																										
Lipoma																														
<b>Genital System</b>																														
Epididymis	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	+		+	+	+		+	
Mesothelioma Malignant																														
Preputial Gland	M	+	+	+	+	+	+		+	M	+	+		+	M		+	M	+	+	M	+	M		+	+	M		+	
Carcinoma																														
Prostate	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	M	+		+	+	M		+
Seminal Vesicle	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	M	+		+	+	+		+
Testes	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	+	+		+	+	+		+

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Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0			
	ANIMAL ID	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	7	6	6	5	0	3	5	7	0	3	0	7
		3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	0	
		7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	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	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	
		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	
		1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	
Interstit Cell, Adenoma		X		X			X	X		X							X	X	X						X	X						
Leukemia Mononuclear																																
Tunic, Mesothelioma Benign																																
Tunic, Mesothelioma Malignant		X						X																								
<b>Hematopoietic System</b>																																
Bone Marrow		+	+	+	+	+	+			+	+	+	+		+	+			+	+	+	+	+	+			+	+	+		+	
Leukemia Mononuclear					X	X												X		X	X		X			X	X					
Lymph Node		+	M	+	+	M	+	+			+	+	+	+		+	+			+	+	+	+	+	+			M	+	+		M
Bronchial, Carcinoma, Metastatic, Parathyroid Gland																																
Bronchial, Leukemia Mononuclear					X		X		X															X					X			
Bronchial, Mesothelioma Malignant													X																			
Mediastinal, Leukemia Mononuclear							X																									
Pancreatic, Leukemia Mononuclear																																X
Lymph Node, Mandibular		+	+	+	+	+	+			M	M	+	+		+	+			+	+	+	+	M	+	+		M	+	+		+	
Carcinoma, Metastatic, Zymbal'S Gland																																
Leukemia Mononuclear					X	X	X	X										X		X										X		
Lymph Node, Mesenteric		M	M	M	+	M	M	M		+	M	M	+		A	+			+	+	+	+	+	+	+		+	+	+		M	
Fibrous Histiocytoma, Metastatic, Skin																																
Leukemia Mononuclear					X				X								X		X											X		
Spleen		+	+	+	+	+	+			+	+	+	+		+	+			+	+	+	+	+	+			+	+	+		+	
Leukemia Mononuclear		X		X	X	X	X	X		X		X						X		X	X		X			X		X	X			

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F 344/N Rat 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	0	0	0	0	0	0	0				
ANIMAL ID	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	7	6	6	5	0	3	5	7	0	3	0	7		
	3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	9	0		
	7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	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	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		
	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	3	3	3		
	1	2	3	4	5	6	7	8	9	0	1	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	
Thymus	M	M	+	M	+	+	+		+	M	M	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Leukemia Mononuclear							X																	M	+	+		M					
<b>Integumentary System</b>																																	
Mammary Gland	+	+	+	+	M	M	M		+	M	+	M		M	+		M	M	M	M	+	+	M		M	M	M		M				
Skin	+	+	+	+	+	+	M		+	+	+	+		M	+		+	M	M	M	+	+	M		+	M	+		+				
Fibrous Histiocytoma																																	
Keratoacanthoma												X																					
Subcut Tiss, Lipoma																																	
Trichoepithelioma				X																													
<b>Musculoskeletal System</b>																																	
Bone	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrous Histiocytoma, Metastatic, Skin																																	
Leukemia Mononuclear																																	
Skeletal Muscle	+	M	+	+	+	M	M		M	M	M	+		+	+		+	M	M	M	+	M	M		+	+	+		+				
Diaphragm, Mesothelioma Malignant	X																																
Fibrous Histiocytoma, Metastatic, Skin																																	
Leukemia Mononuclear				X																													
<b>Nervous System</b>																																	
Brain	+	+	+		+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																																	
Oligodendroglioma Benign																																	

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	0	0	0	0	0	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	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	7	6	6	5	0	3	5	7	0	3	0	7
	3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	9	0
	7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	8	
Brain, Brain Stem	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Leukemia Mononuclear	0	0	0	0	0	0	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	
	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	3	3	
	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	
Brain, Brain Stem																															
Leukemia Mononuclear																															
<b>Respiratory System</b>																															
Larynx	M	+	+	M	M	M	+		+	M	M	+	A	+		+	+	+	+	+	+	+	+	M	+	+		M			
Lung	M	+	+	+	M	+	+		+	M	+	+	+	+		+	+	+	+	+	+	+	+	M	+	+		M			
Leukemia Mononuclear				X												X			X			X			X	X					
Squamous Cell Carcinoma																															
Nose	+	+	+	+	+	+	+		+	M	+	+	A	+		+	+	+	+	+	+	+	M		M	+	+		+		
Fibrosarcoma																															
Trachea	M	+	+	+	M	+	+		+	M	+	+	+	+		+	+	+	+	+	+	+	+	M	+	+		M			
<b>Special Senses System</b>																															
Eye	+	+	+	+	+	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	M		+	+	+		+		
Harderian Gland	M	+	M	+	M	+	+		+	M	+	M	+	+		+	+	+	+	+	+	+	M		M	+	M		M		
Leukemia Mononuclear																															
Lacrimal Gland	+	+	+	+	+	+	+		+	M	+	+	A	+		+	+	+	+	+	+	+	M		M	+	+		+		
<b>Urinary System</b>																															
Kidney	+	+	+	+	+	+	+		+	+	+	+	A	+		+	+	+	+	+	+	+	+		+	+	+		+		
Leukemia Mononuclear																															
Sarcoma																															
Urinary Bladder	+	+	+	+	+	+	+		+	+	+	+	+	+		+	+	+	+	+	+	+	M	+		+	+	+		+	
Serosa, Mesothelioma 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:04

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0	0	
	7	6	7	4	7	7	7	6	7	3	7	7	0	7	5	7	7	6	7	7	6	6	5	0	3	5	7	0	3	0	7
	3	3	8	6	3	8	2	8	2	7	1	8	9	1	6	2	7	3	5	2	8	0	3	9	7	4	3	9	7	9	0
	7	5	7	6	8	7	9	1	2	3	0	7	3	6	5	4	3	4	4	6	8	0	4	3	3	9	2	3	3	8	
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	
	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	
	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	3	3	
	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	

Transit Epithe, Papilloma

SYSTEMIC LESIONS

Multiple Organ	+	+	+	+	+	+	+		+	+	+	+		+	+		+	+	+	+	+	+	+		+	+	+	+		
Leukemia Mononuclear	X		X	X	X	X	X		X		X						X		X	X		X			X		X	X		
Mesothelioma Benign																														
Mesothelioma 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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:04

First Dose M/F: NA / NA

Lab: NORTHROP

		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			
<b>F 344/N Rat Male</b>		5	7	5	6	7	7	6	7	7	7	6	3	7	3	7	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6
	<b>CONTROL</b>	1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1
		6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	8	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	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
		3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
		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	2

**Alimentary System**

Esophagus	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Intestine Large, Cecum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Colon	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Intestine Large, Rectum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Duodenum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Ileum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Intestine Small, Jejunum	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bile Duct, Carcinoma																																	
Fibrous Histiocytoma, Metastatic, Skin													X																				
Hepatocellular Adenoma							X																										
Hepatocyte, Adenoma																																	
Leukemia Mononuclear	X	X		X	X								X		X		X	X	X			X	X		X	X		X		X		X	
Mesentery											+																						
Mesothelioma Malignant											X																						
Pancreas	+	+	+	+		+	+		+	+	+	+	+	+	+	+	+	+	+	+			+	+	+	+		+	+	+	+	M	
Acinar Cell, Adenoma																																	
Salivary Glands	+	+	+	+	M	+	M	+	+	+	+	M	+	M	+	+	+	+	+	+			+	+	+	+	+	+	+	+	+	+	
Carcinoma, Metastatic, Zymbal'S Gland					X																												
Fibrous Histiocytoma, Metastatic, Skin											X																						
Stomach																																	+

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:05

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0	0	
	ANIMAL ID	5	7	5	6	7	6	7	7	7	6	3	7	3	7	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6	
		1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1
		6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	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	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
		3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5
		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	2
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																																
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Tongue																																
<b>Cardiovascular System</b>																																
Heart		+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Leukemia Mononuclear																																
<b>Endocrine System</b>																																
Adrenal Gland																																
Capsule, Mesothelioma Malignant																																
Adrenal Gland, Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Adenoma																																
Leukemia Mononuclear																																
Adrenal Gland, Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Leukemia Mononuclear																																
Pheochromocytoma Benign					X					X	X	X					X	X		X												X
Islets, Pancreatic																																
Adenoma																																
Carcinoma																																
Parathyroid Gland		+	M	+	+	M	+	+	+	+	+	+	M	+	M	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																																
Carcinoma																																

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:05

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0						
ANIMAL ID	5	7	5	6	7	7	6	7	7	7	6	3	7	3	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6					
	1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1				
	6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	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	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				
	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	6	6	6	6				
	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	2				
Pituitary Gland	+	+	+	+	M	+	+	+	+	+	+	M	+	+	+	I	+	I	+	+	+	+	+	M	+	+	+	I	+	I	I				
Leukemia Mononuclear				X																															
Pars Distalis, Adenoma	X								X	X	X	X	X	X	X	X	X	X	X			X	X	X				X							
Thyroid Gland	+	M	+	+	M	+	+	+	+	+	+	M	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
C Cell, Adenoma																																			
C Cell, Carcinoma																																			
<b>General Body System</b>																																			
Tissue NOS				+								+																							
Carcinoma				X																															
Fat, Mesothelioma Malignant																																			
Fibrosarcoma																																			
Hemangiosarcoma																																			
Leukemia Mononuclear																																			
Lipoma																																			
<b>Genital System</b>																																			
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	
Mesothelioma Malignant																																			
Preputial Gland	M	M	M	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	A	M	+	M	M	+	M	+	M	M	
Carcinoma																																			
Prostate	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A
Testes	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:05

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0				
ANIMAL ID	5	7	5	6	7	7	6	7	7	7	6	3	7	3	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6			
	1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1		
	6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	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	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		
	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5		
	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	2		
Interstit Cell, Adenoma		X		X	X	X	X		X			X	X	X					X		X		X			X							
Leukemia Mononuclear																																	
Tunic, Mesothelioma Benign																																	
Tunic, Mesothelioma Malignant									X																								
<b>Hematopoietic System</b>																																	
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	
Leukemia Mononuclear	X	X	X	X	X	X							X		X		X		X		X	X		X		X		X					
Lymph Node	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Bronchial, Carcinoma, Metastatic, Parathyroid Gland																																	
Bronchial, Leukemia Mononuclear																																	X
Bronchial, Mesothelioma Malignant																																	
Mediastinal, Leukemia Mononuclear																																	
Pancreatic, Leukemia Mononuclear																																	
Lymph Node, Mandibular	+	+	+	+	M	+	M	+	M	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Carcinoma, Metastatic, Zymbal'S Gland				X																													
Leukemia Mononuclear	X						X																										
Lymph Node, Mesenteric	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrous Histiocytoma, Metastatic, Skin											X																						
Leukemia Mononuclear																																	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A
Leukemia Mononuclear	X	X	X	X	X	X							X		X		X	X	X	X	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  
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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:06

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0				
	5	7	5	6	7	7	6	7	7	7	6	3	7	3	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6		
ANIMAL ID	1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1	
ANIMAL ID	6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	8	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	
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	
ANIMAL ID	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	
ANIMAL ID	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	
ANIMAL ID	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	2	
Thymus	+	+	+	+	+	M	M	+	M	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	M	+	+	+	M	M	+	M
Leukemia Mononuclear																																
<b>Integumentary System</b>																																
Mammary Gland	M	M	M	+	M	+	M	M	M	M	M	+	+	+	+	+	+	M	M	+		+	+	M	M	M		M	+	M	M	
Skin	+	+	M	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	
Fibrous Histiocytoma												X																				
Keratoacanthoma																																
Subcut Tiss, Lipoma							X																									
Trichoepithelioma																																
<b>Musculoskeletal System</b>																																
Bone	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Fibrous Histiocytoma, Metastatic, Skin											X																					
Leukemia Mononuclear																	X															
Skeletal Muscle	+	+	M	+	M	+	M	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+		
Diaphragm, Mesothelioma Malignant																																
Fibrous Histiocytoma, Metastatic, Skin											X																					
Leukemia Mononuclear																																
<b>Nervous System</b>																																
Brain	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Adenoma																																
Oligodendroglioma Benign																																

\* ..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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:06

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat 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	0	0	0	0	0	0	0	0	0	0
	5	7	5	6	7	7	6	7	7	7	6	3	7	3	7	7	7	7	7	0	6	5	7	6	7	0	4	6	7	6		
	1	3	2	8	3	2	1	8	2	3	0	7	8	7	3	8	4	1	4	4	9	5	8	2	5	4	9	6	8	8	1	
	6	8	6	2	8	9	4	7	6	0	0	3	7	3	8	8	5	2	5	3	3	3	6	6	6	3	3	4	8	8	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	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	
	3	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	
	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	2	

Transit Epithe, Papilloma

X

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + + + + + + + + + + + + + + +

Leukemia Mononuclear

X X X X X X X X X X X X X X X X X X X X X X X X X X

Mesothelioma Benign

X

Mesothelioma Malignant

X

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:06

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male CONTROL

| DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 7       | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6 |
|             | 3       | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9 |
|             | 7       | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8 |
| 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 |
|             | 2       | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
|             | 6       | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 3       | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|             | *TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Alimentary System

|                                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|----------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                              | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 61 |
| Intestine Large, Cecum                 | + | A | + | + | + | + | + | A | + | + | + | A | + | + | A | 58 |
| Intestine Large, Colon                 | + | A | + | + | + | + | + | A | + | + | + | A | + | + | A | 58 |
| Intestine Large, Rectum                | + | A | + | + | + | + | + | + | + | + | + | A | + | + | A | 60 |
| Intestine Small, Duodenum              | + | A | + | + | + | + | + | + | + | + | + | A | + | + | A | 60 |
| Intestine Small, Ileum                 | + | A | + | + | + | + | + | + | + | + | + | A | + | + | A | 60 |
| Intestine Small, Jejunum               | + | A | + | + | + | + | + | + | + | + | + | A | + | + | A | 60 |
| Liver                                  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 68 |
| Bile Duct, Carcinoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Fibrous Histiocytoma, Metastatic, Skin |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocellular Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Hepatocyte, Adenoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |
| Leukemia Mononuclear                   |   | X |   | X | X |   |   |   |   | X | X |   | X |   |   | 34 |
| Mesentery                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas                               | + | + | + | + | M | + | + | + | + | + | + | A | + | + |   | 58 |
| Acinar Cell, Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands                        | + | + | + | M | + | + | + | + | M | + | + | + | M | M | M | 55 |
| Carcinoma, Metastatic, Zymbal'S Gland  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Fibrous Histiocytoma, Metastatic, Skin |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach                                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:06

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male CONTROL

|                                 | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | *TOTALS |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |         |
|                                 | 7           | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6  |         |
|                                 | 3           | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9  |         |
|                                 | 7           | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8  |         |
| 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  |         |
|                                 | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2  |         |
|                                 | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  |         |
|                                 | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  |         |
| Stomach, Forestomach            | +           | A | + | + | + | + | + | + | + | + | + | A | + | + | M | 62 |         |
| Leukemia Mononuclear            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Stomach, Glandular              | +           | A | + | + | + | + | + | + | + | + | + | A | + | + | A | 61 |         |
| Tongue                          |             |   |   |   |   |   |   | + |   |   |   |   |   |   |   | 1  |         |
| <b>Cardiovascular System</b>    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Heart                           | +           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 63 |         |
| Leukemia Mononuclear            |             |   |   | X |   |   |   |   |   |   |   |   | X |   |   | 5  |         |
| <b>Endocrine System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Adrenal Gland                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |         |
| Capsule, Mesothelioma Malignant |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2  |         |
| Adrenal Gland, Cortex           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 67 |         |
| Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 2  |         |
| Leukemia Mononuclear            |             |   |   | X | X |   |   | X |   |   |   |   | X |   |   | 8  |         |
| Adrenal Gland, Medulla          | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 67 |         |
| Leukemia Mononuclear            |             |   |   | X | X |   |   | X |   |   |   |   | X |   |   | 7  |         |
| Pheochromocytoma Benign         | X           |   | X |   |   |   |   | X |   |   | X |   |   |   | X | 19 |         |
| Islets, Pancreatic              |             |   |   |   |   |   |   |   |   |   |   |   |   |   | + | 7  |         |
| Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |         |
| Carcinoma                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 2  |         |
| Parathyroid Gland               | M           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 54 |         |
| Adenoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |         |
| Carcinoma                       |             |   |   |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male CONTROL

|                             | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | *TOTALS |
|-----------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
|                             | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |         |
|                             | 7           | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6  |         |
|                             | 3           | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9  |         |
|                             | 7           | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8  |         |
| 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  |         |
|                             | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2  |         |
|                             | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  |         |
|                             | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  |         |
| Pituitary Gland             | +           | + | + | + | + | + | + | A | M | I | M | M | + | + | + | 50 |         |
| Leukemia Mononuclear        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Pars Distalis, Adenoma      | X           |   | X |   |   | X |   |   |   |   |   |   |   |   | X | 29 |         |
| Thyroid Gland               | M           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 56 |         |
| C Cell, Adenoma             |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 2  |         |
| C Cell, Carcinoma           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| <b>General Body System</b>  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Tissue NOS                  |             |   |   | + |   |   |   |   |   |   |   |   |   |   |   | 7  |         |
| Carcinoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Fat, Mesothelioma Malignant |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Fibrosarcoma                |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Hemangiosarcoma             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Leukemia Mononuclear        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Lipoma                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| <b>Genital System</b>       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Epididymis                  | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 67 |         |
| Mesothelioma Malignant      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Preputial Gland             | +           | + | + | M | + | + | + | + | + | + | + | M | M | + | + | 45 |         |
| Carcinoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 1  |         |
| Prostate                    | +           | + | + | + | + | + | + | + | + | + | + | M | + | + | + | 62 |         |
| Seminal Vesicle             | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 66 |         |
| Testes                      | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 66 |         |

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

+ ..Tissue examined microscopically

X ..Lesion present

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Experiment Number: 05083-01

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Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

**F 344/N Rat Male  
CONTROL**

|                                                        | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
|--------------------------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|
|                                                        | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |
|                                                        | 7           | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6 |                |
|                                                        | 3           | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9 |                |
|                                                        | 7           | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8 |                |
| 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 |                |
|                                                        | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |                |
|                                                        | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |                |
|                                                        | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | <b>*TOTALS</b> |
| Interstit Cell, Adenoma                                | X           |   | X |   | X | X | X | X |   | X |   |   | X |   | X |   | 32             |
| Leukemia Mononuclear                                   |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Tunic, Mesothelioma Benign                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Tunic, Mesothelioma Malignant                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3              |
| <b>Hematopoietic System</b>                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Bone Marrow                                            | +           | + | + | + | + | + | + | + | M | + | + | + | + | + |   | + | 66             |
| Leukemia Mononuclear                                   |             | X | X | X |   |   |   | X |   | X | X |   | X |   |   |   | 29             |
| Lymph Node                                             | M           | + | + | + | + | + | + | + | M | + | + | M | + | + |   | + | 59             |
| Bronchial, Carcinoma, Metastatic,<br>Parathyroid Gland |             |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | 1              |
| Bronchial, Leukemia Mononuclear                        |             | X |   | X | X |   |   | X |   |   |   |   | X |   |   |   | 13             |
| Bronchial, Mesothelioma Malignant                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Mediastinal, Leukemia Mononuclear                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Pancreatic, Leukemia Mononuclear                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Lymph Node, Mandibular                                 | +           | + | + | M | M | + | + | + | M | + | + | M | M | M |   | M | 52             |
| Carcinoma, Metastatic, Zymbal'S Gland                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Leukemia Mononuclear                                   |             | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 14             |
| Lymph Node, Mesenteric                                 | M           | + | + | + | + | + | + | + | + | + | + | + | + | + |   | + | 54             |
| Fibrous Histiocytoma, Metastatic, Skin                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Leukemia Mononuclear                                   |             | X |   |   | X |   |   | X |   |   |   |   | X |   |   |   | 13             |
| Spleen                                                 | +           | + | + | + | + | + | + | + | + | + | + | + | + | + |   | + | 67             |
| Leukemia Mononuclear                                   |             | X | X | X | X |   |   | X |   | X | X |   |   |   |   |   | 38             |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male CONTROL

|                                        | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|----------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                                        | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                                        | 7           | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6 |         |
|                                        | 3           | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9 |         |
|                                        | 7           | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8 |         |
| 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 |         |
|                                        | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |         |
|                                        | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|                                        | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |         |
| Thymus                                 | M           | + | + | M | M | + | + | M | M | M | + | + | + | + | + | + |         |
| Leukemia Mononuclear                   |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |         |
| <b>Integumentary System</b>            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Mammary Gland                          | +           | M | + | + | M | + | M | + | M | M | + | + | M | + |   | M |         |
| Skin                                   | +           | + | + | + | + | + | + | + | M | + | + | + | M | + |   | + |         |
| Fibrous Histiocytoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Keratoacanthoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Subcut Tiss, Lipoma                    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Trichoepithelioma                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| <b>Musculoskeletal System</b>          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Bone                                   | +           | + | + | + | + | + | + | + | M | + | + | + | + | + |   | + |         |
| Fibrous Histiocytoma, Metastatic, Skin |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Leukemia Mononuclear                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Skeletal Muscle                        | +           | + | + | + | + | + | + | + | M | M | + | M | M | + |   | + |         |
| Diaphragm, Mesothelioma Malignant      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Fibrous Histiocytoma, Metastatic, Skin |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Leukemia Mononuclear                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| <b>Nervous System</b>                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Brain                                  | +           | + | + | + | + | + | + | + | M | + | + | + | + | + |   | + |         |
| Adenoma                                |             |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |         |
| Oligodendroglioma Benign               |             |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>CONTROL    | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|--------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                                | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                                | 7           | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6 |         |
|                                | 3           | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9 |         |
|                                | 7           | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8 |         |
| 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 |         |
|                                | 2           | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |         |
|                                | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|                                | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |         |
| Brain, Brain Stem              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Leukemia Mononuclear           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| <b>Respiratory System</b>      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Larynx                         | M           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |         |
| Lung                           | M           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |         |
| Leukemia Mononuclear           |             | X |   | X | X |   |   |   | X |   |   |   | X |   |   |   |         |
| Squamous Cell Carcinoma        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Nose                           | +           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |         |
| Fibrosarcoma                   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Trachea                        | M           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |         |
| <b>Special Senses System</b>   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Eye                            | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Harderian Gland                | M           | + | M | + | + | M | + | M | M | M | M | + | + | M | + | + |         |
| Leukemia Mononuclear           |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |         |
| Lacrimal Gland                 | +           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + |         |
| <b>Urinary System</b>          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Kidney                         | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |         |
| Leukemia Mononuclear           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Sarcoma                        |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |         |
| Urinary Bladder                | +           | + | + | + | I | + | + | + | + | + | + | M | + | + | + | + |         |
| Serosa, Mesothelioma 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
CONTROL

|             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | *TOTALS |
|             | 7 | 6 | 6 | 5 | 6 | 7 | 7 | 5 | 3 | 5 | 7 | 4 | 6 | 6 | 6 | 6 | 6 |         |
|             | 3 | 0 | 7 | 5 | 7 | 0 | 6 | 8 | 7 | 6 | 5 | 9 | 2 | 5 | 8 | 9 | 9 |         |
|             | 7 | 0 | 3 | 1 | 4 | 5 | 1 | 2 | 3 | 8 | 4 | 9 | 5 | 3 | 1 | 8 | 8 |         |
| 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 |         |
|             | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |         |
|             | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|             | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 8 |         |

Transit Epithe, Papilloma 1

SYSTEMIC LESIONS

|                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ         | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 68 |
| Leukemia Mononuclear   |   | X | X | X | X |   |   | X |   | X | X |   | X |   |   |   |   | 40 |
| Mesothelioma Benign    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Mesothelioma Malignant |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |

\* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
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M ..Missing tissue  
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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:07

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

| 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 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 4 | 7 | 7 | 0 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 4 | 6 | 0 | 5 | 6 | 5 | 6 | 7 | 3 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 3 | 6 | 6 |   |   |   |
|             | 2 | 3 | 8 | 9 | 7 | 3 | 8 | 3 | 8 | 2 | 3 | 3 | 4 | 9 | 1 | 6 | 2 | 1 | 0 | 7 | 7 | 2 | 3 | 2 | 2 | 9 | 0 | 3 | 7 | 2 | 4 |   |   |   |
|             | 2 | 7 | 8 | 4 | 9 | 7 | 7 | 7 | 7 | 8 | 7 | 1 | 9 | 4 | 5 | 9 | 7 | 7 | 3 | 4 | 4 | 6 | 7 | 6 | 2 | 4 | 0 | 7 | 4 | 3 | 6 |   |   |   |
| 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 |   |
|             | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |
|             | 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 | 2 | 2 | 3 | 3 | 3 | 3 |   |   |
|             | 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 |   |   |   |

Alimentary System

|                           |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus                 | + | + | + |  | + | + | + | M | M | + | M | + | + |  | + | + | + | + | + | M | M | + | + | + | + |   | + | + | M | + | + |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large           |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Intestine Large, Cecum    | + | + | + |  | + | + | + | + | + | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | A |   | + |   | + | M | + |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Colon    | + | M | + |  | + | + |   | + | + | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | A |   | + |   | + | M | + |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Large, Rectum   | + | M | + |  | + | + | + | + |   | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | + | + |   | + |   | + | + | + |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small           |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Intestine Small, Duodenum | + | A | + |  | + | + | + | + | + | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | + | + |   | + |   | + | + | + |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Ileum    | + | A | + |  | + | + | + | + | + | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | + |   | + |   | + | A | + |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Intestine Small, Jejunum  | + | A | + |  | + | + | + | + | + | + | + | + | + |  | + | + | A | + | A | + | + | + | + | + | A |   | + |   | + | A | + |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Liver                     | + | + | + |  | + | + | + | + | + | + | + | + | + |  | + | + | + | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + |   |   |
| Hepatocellular Adenoma    |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear      |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   | X | X |   |   | X | X | X |   | X | X |   |   |   |   |   |   |
| Mesentery                 |   |   |   |  |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |
| Pancreas                  | + | + | + |  | + | + | + | + | + |   | + | + | + |  | + | + | + | M | + | + | + | + | + |   |   |   | + |   | + | + | + | + |   |   |

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

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:08

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |   |   |   |   |   |  |
|                                    | 4           | 7 | 7 | 0 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 4 | 6 | 0 | 5 | 6 | 5 | 6 | 7 | 3 | 3 | 7 | 7 | 2 | 3 | 2 | 2 | 9 | 0 | 3 | 7 | 2 | 4 | 6 |  |
| 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 |   |  |
| 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |  |
| 0                                  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |   |  |
| 1                                  | 2           | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 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 |   |  |
| Adenoma                            |             |   |   |   |   |   |   |   | X | X | X |   |   |   |   | X | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   | X |   |   |  |
| Parathyroid Gland                  | M           | + | + |   | + | + | + |   | + | + |   | + | + |   | + | + | M | + | + | M | M | + |   |   | + |   | M | + | M | + | + |   |   |   |  |
| Pituitary Gland                    | +           | + | + |   | + | + | + |   | + | + |   | + | + |   | + | + | + | + | + | M | + |   | + | M | I |   | + | M | + | + | + | + |   |   |  |
| Adenoma                            |             |   |   | X | X | X |   |   | X |   |   | X | X |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |  |
| Pars Distalis, Adenoma             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thyroid Gland                      | M           | + | + |   | + |   |   |   | M | + | + | M | + | + |   | + | + | + | + | + | + | M | M | + | M | + | + |   | + | + | M | + | + |   |  |
| Adenoma                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| C Cell, Adenoma                    |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Follicular Cel, Carcinoma          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>General Body System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Tissue NOS                         | +           |   |   |   | + |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   | + | + |   |   |   |   |  |
| Fibroma                            | X           |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Fibrosarcoma                       |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |  |
| <b>Genital System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Epididymis                         | +           | + | + |   | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Penis                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Preputial Gland                    | +           | M |   |   | + | + |   |   | + | + | + | + |   |   | + | + | I |   |   |   | M | + | + | + | M | + |   |   | M | M | M | M |   |   |  |
| Prostate                           | +           | M | + |   | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:09

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |   |   |   |   |  |
|                                    | 4           | 7 | 7 | 0 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 4 | 6 | 0 | 5 | 6 | 5 | 6 | 7 | 3 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 3 | 6 | 6 |   |   |  |
| ANIMAL ID                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| 2                                  | 3           | 8 | 9 | 7 | 3 | 8 | 3 | 8 | 2 | 3 | 3 | 4 | 9 | 1 | 6 | 2 | 1 | 0 | 7 | 3 | 4 | 4 | 6 | 2 | 3 | 2 | 2 | 9 | 0 | 3 | 7 | 2 | 4 |  |
| 2                                  | 7           | 8 | 4 | 9 | 7 | 7 | 7 | 7 | 8 | 7 | 1 | 9 | 4 | 5 | 9 | 7 | 3 | 4 | 4 | 6 | 7 | 6 | 2 | 4 | 0 | 7 | 4 | 3 | 6 | 6 | 6 | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |  |
| 0                                  | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
| 1                                  | 2           | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |  |
| Seminal Vesicle                    | +           |   | + |   | + | + | + |   |   | + | + | + |   | + | + | A | + | + | + | + | + | + | + | + | + | A |   | + | + | + | + | + |   |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Testes                             | +           | + |   |   | + | + | + | + |   | + | + | + |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Interstitial Cell, Adenoma         |             | X |   |   |   | X | X | X | X |   |   | X |   |   | X |   |   |   |   |   | X | X |   | X |   |   |   | X |   |   |   |   |   |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Hematopoietic System</b>        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bone Marrow                        | +           | + | + |   | + | + | + |   |   | + | + |   |   |   | + |   |   |   | + | + |   |   | + | + |   |   | + | + | + | + | + | + |   |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node                         | +           | + | M |   | M | M | M | + | M | M | M | + |   |   | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Bronchial, Leukemia Mononuclear    |             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | X |   | X | X |   |   | X |   |   |   |   |   |   |  |
| Lymph Node, Mandibular             | M           | + | + |   | + | + | + | + | M | + | M | + | + |   | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| Lymph Node, Mesenteric             | M           | M | M | + | M | M | M | + | + | + | + | M |   | + | M | M | M | M | M | + | M | M | M |   | M | + | + | M | M | M | M | M | M |  |
| Leukemia Mononuclear               |             |   |   | X |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   | X |   |   |   |   |   | X | X |   | X | X |   |   |   |  |
| Spleen                             | +           | + | + |   | + | + | + | + | M | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear               |             |   |   |   | X |   |   | X |   |   | X | X |   |   |   |   | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |  |
| Thymus                             | +           | + | + |   | + |   | + | M | + | + | + | + | + |   | + | + | + | M | M | M | M | M | M | M | + | + | M | + | M | M | M | M | M |  |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thymoma Nos                        | X           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Integumentary System</b>        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mammary Gland                      | M           | M | + |   | + | + | M | + |   | M | M | M |   |   | M | + | M | M | M | M | M | M | + | + | M |   | M | + | M | M | + | + |   |  |
| Skin                               |             | + | + |   | + | + | + | + | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:09

First Dose M/F: NA / NA

Lab: NORTHROP

| DAY ON TEST      | 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 |   |   |
| F 344/N Rat Male | 4         | 7 | 7 | 0 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 4 | 6 | 0 | 5 | 6 | 5 | 6 | 7 | 3 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 3 | 6 | 6 |
| 10 MG/M3 24 MO   | 2         | 3 | 8 | 9 | 7 | 3 | 8 | 3 | 8 | 2 | 3 | 3 | 4 | 9 | 1 | 6 | 2 | 1 | 0 | 7 | 7 | 2 | 3 | 2 | 2 | 9 | 0 | 3 | 7 | 2 | 4 |
|                  | 2         | 7 | 8 | 4 | 9 | 7 | 7 | 7 | 8 | 7 | 1 | 9 | 4 | 5 | 9 | 7 | 3 | 4 | 4 | 6 | 7 | 6 | 2 | 4 | 0 | 7 | 4 | 3 | 6 | 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 | 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 | 1 | 1 | 1 | 1 | 1 |   |
|                  | 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 | 2 | 2 | 2 | 3 | 3 |   |
|                  | 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 |   |

|                           |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Fibroma                   | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Fibrosarcoma              | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Keratoacanthoma           | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Leukemia Mononuclear      | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Squamous Cell Carcinoma   |   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Subcut Tiss, Fibrosarcoma | X |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Musculoskeletal System

|                 |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone            | + | + | + |  | + | + | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + |   | + | + | + | + |   |   |   |
| Skeletal Muscle | + | M | + |  | M | + | + | + | + | M | M | + |   | M | + | M | + | M | + | M | + | + | + | + |   | M | + | + | + | + |

Nervous System

|                      |   |   |   |  |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
|----------------------|---|---|---|--|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|
| Brain                | + | + | + |  | + | + | + | + | + | + | + | + |  | + | + | + | + | + | M | + | + | + | + | + |  | + | + | + | + |
| Leukemia Mononuclear | X |   |   |  |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
| Brain, Cerebrum      |   |   |   |  |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |
| Medulloblastoma Nos  |   |   |   |  |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |

Respiratory System

|                                      |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Larynx                               | + | + | + |  | + | M | + | M | + | + |   | + | + | + | + | + | M | M | + | M | + | + |   | M | + | M | + | + |   |   |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Lung                                 | + | + |   |  | + | M | + | M | + | + | M | + | + |   | + | + | + | + | + | M | M |   | M | + | + |   | + | + | M | + |
| Alveolar/Bronchiolar Carcinoma       |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                 | X |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                                 | + | + | + |  | + | + | + | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + |   | + | + | + |   |   |   |

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

M ..Missing tissue  
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First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |   |   |   |
|                                    | 4           | 7 | 7 | 0 | 4 | 7 | 7 | 7 | 7 | 6 | 7 | 4 | 6 | 0 | 5 | 6 | 5 | 6 | 7 | 3 | 3 | 7 | 7 | 7 | 4 | 0 | 7 | 7 | 3 | 6 | 6 |
| ANIMAL ID                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| 2                                  | 3           | 8 | 9 | 7 | 3 | 8 | 3 | 8 | 2 | 3 | 3 | 4 | 9 | 1 | 6 | 2 | 1 | 0 | 7 | 7 | 2 | 3 | 2 | 2 | 9 | 0 | 3 | 7 | 2 | 4 |   |
| 2                                  | 7           | 8 | 4 | 9 | 7 | 7 | 7 | 7 | 8 | 7 | 1 | 9 | 4 | 5 | 9 | 7 | 7 | 3 | 4 | 4 | 6 | 7 | 6 | 2 | 4 | 0 | 7 | 4 | 3 | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 |   |
| 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 | 2 | 2 | 2 | 3 | 3 |   |
| 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 |   |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Septum, Polyp                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Trachea                            | +           | + | + |   | + | M | + | M | M | + | M | + | + |   | + | + | + | + | + | M | M | + | M | + | + |   | + | + | M | + | + |
| <b>Special Senses System</b>       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                                | +           | + | + |   | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | M | + | + | + | + | + |   | + | + | + | + | + |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                    | M           |   | + |   |   | M | + | M | M | M | M | + |   |   | M | M |   |   |   | + | + | M |   |   | + |   |   | + | M | M |   |
| Lacrimal Gland                     | +           | + |   |   | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | M | + | + | + | + |   | + | + | + | + | + |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                             | +           | + | + |   | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urethra                            |             | + |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Urinary Bladder                    | +           |   | + |   | + | + | + | + | + | + | + | + | + |   | + | + | + | + | M | + | + | + | + |   | + |   | + | M | + | + | + |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>SYSTEMIC LESIONS</b>            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ                     | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear               |             |   |   | X | X |   |   | X |   |   | X | X |   | X |   | X | X | X | X | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:09

First Dose M/F: NA / NA

Lab: NORTHROP

**F 344/N Rat Male  
10 MG/M3 24 MO**

| 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 |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 6 | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 4 |
|             | 0 | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 | 7 |
|             | 3 | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 9 |   |
| 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 |   |
|             | 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 | 1 | 1 | 1 | 1 | 1 |   |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |   |
|             | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

**Alimentary System**

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus                 | + | + | + | + | + | + | + | + | M | + | + | + | + |   | + | + |  | + | + |   | + | + | + | + | M | + | + | + | + | + | + | + | + |   |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large, Cecum    | A | + | + | + | A | + | I | A | + | A | + | + | + |   | A | + |  | + | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large, Colon    | A | + | + | + | A | + | I | A | + | A | + | + | + |   | A | + |  | A | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large, Rectum   | + | + | + | + | A | + | I | A | + | A | + | + | + |   | A | + |  | + | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Small           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Small, Duodenum | A | + | + | + | A | + | I | A | + | + | + | + | + |   | A | + |  | + | A |   | + | + | + | + | + | + |   | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Small, Ileum    | A | + | A | + | A | + | I | A | + | A | + | + | + |   | A | + |  | + | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Small, Jejunum  | A | + | + | + | A | + | I | A | + | A | + | + | + |   | A | + |  | + | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear      |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Liver                     | + | + | + | + | + | + | + | A | + | + | + | + | + |   | + | + |  | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hepatocellular Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear      | X | X | X | X | X |   | X |   |   | X | X |   | X | X |   |   |  |   |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |  |
| Mesentery                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pancreas                  | + | + | + | + | A |   | + | M | + | + | + | + | + |   | + | + |  | A |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:10

First Dose M/F: NA / NA

Lab: NORTHROP

|                                    |           | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------------------------------------|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |
|                                    |           | 6           | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 4 |
|                                    |           | 0           | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 |
|                                    |           | 3           | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 |   |
| 3                                  | 3         | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |   |
| 2                                  | 3         | 4           | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |   |

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|---|--|---|---|--|---|---|---|---|---|---|---|---|---|---|---|
| Duct, Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear            | X | X |   | X |   |   | X |   |   |   | X |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Salivary Glands                 | + | + | + | + | A | + | + | M | M | + |   | + | + |  | A | + |  | + | + |  | + | + | + | + |   | + | + | + |   | + |   |
| Fibrosarcoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear            |   |   |   | X |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Forestomach            | + | + | + | + | A | + | I | A | + |   | + | + |   |  | A | + |  | + | A |  | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear            |   |   |   | X |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Papilloma         |   |   |   |   |   |   |   |   |   |   | X |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Submucosa, Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Stomach, Glandular              | + | + | + | + | A | + | I | A | + | + | + | + | + |  | A | + |  | + | A |  | + | + | + | + | + | + | + | + | + | M | + |
| Leukemia Mononuclear            |   |   |   | X |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| <b>Cardiovascular System</b>    |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Heart                           | + | + | + | + | + | + | + | + | M | + | + | + | + |  | + | + |  | + | + |  | + | + | + | + | M | + | + | + | + | + |   |
| Leukemia Mononuclear            |   |   | X | X |   |   | X |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   | X |   |
| <b>Endocrine System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Adrenal Gland, Cortex           | + | + | + | + |   | + |   | A | + | + | + | + | + |  | A | + |  | + | + |  | + | + | + | + | + | + | + | + | + | + |   |
| Adenoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear            |   |   |   | X |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   | X |   |   |   |   |   |   |   |   |
| Adrenal Gland, Medulla          | + | + | + | + | + | + | + | A | + | + | + |   | + |  | A | + |  | + | + |  | + | + | + | M | + | + | + | + | + | + |   |
| Leukemia Mononuclear            |   |   |   | X |   |   |   |   |   |   |   |   | X |  |   |   |  |   |   |  |   | X |   |   |   |   |   |   |   |   |   |
| Pheochromocytoma Nos            |   |   |   |   | X |   | X |   |   |   | X | X |   |  | X |   |  |   |   |  |   | X |   |   |   | X | X |   |   |   |   |
| Islets, Pancreatic              |   |   | + |   |   |   |   |   |   |   |   |   |   |  |   |   |  |   |   |  |   |   |   |   |   |   |   |   |   |   | + |

\* ..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

Experiment Number: 05083-01  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: Wollastonite calcium silicates  
 CAS Number: 13983-17-0

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:33:10  
 First Dose M/F: NA / NA  
 Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |
|------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|                                    | ANIMAL ID   | 6 | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 |   |   |
|                                    |             | 0 | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 | 8 | 7 | 9 |   |   |
|                                    |             | 3 | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 7 | 9 | 9 | 9 |   |   |
| Adenoma                            |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | X |   |
| Parathyroid Gland                  |             | + | + | + | + | + | + | + | M | + | + | + | + |   | + | + |   | + | + |   | + | + | M | M |   | + | M | + | M | + | M | + | + | + |   |   |
| Pituitary Gland                    |             | I | M | + | + | + | + | + | A | + | + | + | + |   | M | + |   | + | A |   | + | + | + | M | + | + | + | + | + | + | + | + | + | + |   |   |
| Adenoma                            |             |   |   |   | X | X |   | X |   | X | X | X | X |   | X | X |   |   |   |   | X | X |   |   | X | X |   | X | X |   | X | X |   | X |   |   |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pars Distalis, Adenoma             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                      |             | + | + | + | + | + | + | + | A | M | + | + | + | + |   | A | + |   | + | A |   | + | + | M | + | M | + | M | + | + | + | + | + | + |   |   |
| Adenoma                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| C Cell, Adenoma                    |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Follicular Cel, Carcinoma          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| <b>General Body System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tissue NOS                         |             |   |   |   |   | + |   |   |   |   |   |   |   |   |   | A |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroma                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |
| Fibrosarcoma                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear               |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epididymis                         |             | + | + | + | + | + | + | + | + | + | + | + | + |   | A | + |   | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear               |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Penis                              |             |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Preputial Gland                    |             | M | + | + |   | A | M | + | + | + | M |   | + |   |   | M | M |   | M |   | + | + | M | + | + | M | + | M | + | M | + | M | M | M |   |   |
| Prostate                           |             | + | + | + | + |   | + | + | + | + | + | + | + |   |   | M | + |   | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear               |             |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:10

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 24 MO | 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 |   |   |  |
| ANIMAL ID                          | 6           | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 4 |   |  |
|                                    | 0           | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 | 7 |  |
|                                    | 3           | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 |  |
|                                    | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |  |
|                                    | 2           | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |  |
| Seminal Vesicle                    | +           | + | + | + | M | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Leukemia Mononuclear               |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Testes                             | +           | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Interstitial Cell, Adenoma         |             | X | X |   | X |   |   |   |   | X |   |   |   |   | X |   |   |   |   |   |   |   |   | X | X | X | X | X |   |   |   |  |
| Leukemia Mononuclear               | X           |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Hematopoietic System</b>        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bone Marrow                        | +           |   |   | + |   |   | + | A | + | + | + | + |   |   |   |   |   | + |   | + |   | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear               |             |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Lymph Node                         | +           | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + |   | M | + | M | + | + | + | + | M | + | + | + | + |  |
| Bronchial, Leukemia Mononuclear    |             | X | X | X |   |   | X |   |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |  |
| Lymph Node, Mandibular             | +           | + | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |  |
| Leukemia Mononuclear               |             | X | X | X |   |   | X |   |   | X | X |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |  |
| Lymph Node, Mesenteric             | M           | + | M | + | M | M | + | M | M | M | + |   |   | + | M | M | + | + | M | + | M |   | M | M | M | M | M | + | M | M | + |  |
| Leukemia Mononuclear               |             | X |   | X |   |   | X |   |   |   | X |   |   | X |   |   |   | X |   |   | X |   |   |   |   |   | X |   |   |   |   |  |
| Spleen                             | +           | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | + | A |   | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear               | X           | X | X | X | X |   | X | X |   | X | X |   | X | X |   | X | X |   |   |   |   | X |   |   |   |   | X |   |   |   |   |  |
| Thymus                             | M           | + | M | M | + | + | M | M | M | M |   | M | + |   | M | M | + | + | M |   | M | + | M | + | M | + | M | + | + | + | + |  |
| Leukemia Mononuclear               |             | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   |   |  |
| Thymoma Nos                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Integumentary System</b>        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Mammary Gland                      | M           | + | M | + | + | M | M | + | M | + |   |   |   |   | M |   |   | M | + | M |   | + | M | M | M | + | M | + | + | + |   |  |
| Skin                               | +           | + | + | + | + | + | + | + |   | + | + | + | + |   | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |

\* ..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



Experiment Number: 05083-01  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: Wollastonite calcium silicates  
 CAS Number: 13983-17-0

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:33:11  
 First Dose M/F: NA / NA  
 Lab: NORTHROP

|                                            | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| <b>F 344/N Rat Male<br/>10 MG/M3 24 MO</b> | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                            | 6           | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 |   |   |   |
|                                            | 0           | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 | 7 | 7 | 9 |   |   |   |   |   |
|                                            | 3           | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 7 | 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 | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |
|                                            | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |   |   |
|                                            | 2           | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 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 |   |

|                                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Fibroma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibrosarcoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Keratoacanthoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Squamous Cell Carcinoma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Subcut Tiss, Fibrosarcoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Skeletal Muscle                      | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| <b>Nervous System</b>                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain                                | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Leukemia Mononuclear                 |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Brain, Cerebrum                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Medulloblastoma Nos                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Respiratory System</b>            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Larynx                               | + | + | + | + | + | + | + | + | M | + | + | + |   | M |   | + |   |   |   | + | + |   | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |   |   |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Lung                                 | + | + | + | + | + | + | + |   | M | + | + | + | + |   | + | + |   | + | + |   | + | + | M | + | M |   | M | + | + | + | + | + | + | + | + | + | + | + |   |
| Alveolar/Bronchiolar Carcinoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                 | X | X | X | X |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |
| Nose                                 | + | + | + | + | + | + | + | + | + | + | + | + | + | A |   | + | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |

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

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Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:11

First Dose M/F: NA / NA

Lab: NORTHROP

| 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
|                              | 6 | 6 | 4 | 6 | 7 | 7 | 7 | 6 | 3 | 6 | 7 | 7 | 0 | 6 | 7 | 0 | 6 | 2 | 0 | 6 | 5 | 7 | 6 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| F 344/N Rat Male             | 0 | 5 | 2 | 6 | 5 | 8 | 3 | 2 | 7 | 8 | 1 | 8 | 1 | 9 | 2 | 8 | 9 | 4 | 2 | 9 | 1 | 6 | 3 | 4 | 7 | 8 | 3 | 6 | 8 | 8 | 7 | 7 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| 10 MG/M3 24 MO               | 3 | 5 | 2 | 8 | 1 | 7 | 6 | 7 | 4 | 1 | 6 | 8 | 5 | 4 | 3 | 7 | 4 | 9 | 3 | 4 | 2 | 9 | 7 | 9 | 4 | 8 | 7 | 5 | 7 | 7 | 9 | 9 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| 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 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                              | 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 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                              | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                              | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 3 | 4 | 3 | 4 | 4 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Leukemia Mononuclear         |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Septum, Polyp                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Trachea                      | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + |   | + | + |   | + | + | M | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>Special Senses System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Eye                          | + | + | + | + | + | + | + | + | M | A | + | + | + |   | A | + |   | + | + |   | + | + | + | + | + | + | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Leukemia Mononuclear         |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Harderian Gland              | + | M | + |   | M | M | M | M | M |   |   |   |   |   |   | M | + |   |   | M |   |   | M | M | + | M | M | M | + | M | M | M | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Lacrimal Gland               | + | + | + | + |   | + | + | + | + | + | + | + | + |   | + |   |   | + | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |   |  |  |
| Leukemia Mononuclear         |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>Urinary System</b>        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Kidney                       |   | + | + | + | + | + | + | + | A | + | + |   | + | + |   | A | + |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |  |  |
| Leukemia Mononuclear         |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Urethra                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Urinary Bladder              | + | + | + | + | + | + | + | + | A | + | + |   | + |   |   | A | + |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |  |
| Leukemia Mononuclear         |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>SYSTEMIC LESIONS</b>      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Multiple Organ               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |
| Leukemia Mononuclear         | X | X | X | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:11

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

| DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 6       | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |
|             | 5       | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 |
|             | 5       | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 |
| 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 | 1 | 1 |
|             | 1       | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 |
|             | 6       | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 |
|             | 5       | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 |
|             | *TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Alimentary System

|                           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                 | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 63 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Cecum    | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 57 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Colon    | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 54 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Rectum   | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 58 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Duodenum | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 58 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Ileum    | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 54 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Small, Jejunum  | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + | 55 |
| Leukemia Mononuclear      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Liver                     | + | + | + | + | + | + | + | + | + | + | + | + |   | + | + | + | 69 |
| Hepatocellular Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear      | X |   |   |   |   | X |   |   |   |   | X | X |   |   | X | X | 26 |
| Mesentery                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreas                  | + | + | + | + | + | A | + | + | + | + | + | + | + | M | + | + | 60 |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:11

First Dose M/F: NA / NA

Lab: NORTHROP

**F 344/N Rat Male  
10 MG/M3 24 MO**

| DAY ON TEST                     | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | *TOTALS |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------|
|                                 | 6 | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |   |           |         |
|                                 | 5 | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 | 0 | 0         |         |
|                                 | 5 | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 | 0 | 0         |         |
|                                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0         |         |
|                                 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0         |         |
|                                 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 1 | 1         |         |
|                                 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 | 6 | 6         |         |
|                                 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | 5 | 6         |         |
| Duct, Adenoma                   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1         |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6         |         |
| Salivary Glands                 | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + |   | 58        |         |
| Fibrosarcoma                    | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| Stomach, Forestomach            | + | + | + | + | + | A | + | + | + |   | + | + | + | M | + | + |   | 61        |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| Squamous Cell Papilloma         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| Submucosa, Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | 1         |         |
| Stomach, Glandular              | + | + | + | + | + | A | + | + | + | + | + | + | A | M | + | + |   | 62        |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| <b>Cardiovascular System</b>    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |         |
| Heart                           | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |   | 66        |         |
| Leukemia Mononuclear            |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | X |   | 8         |         |
| <b>Endocrine System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |           |         |
| Adrenal Gland, Cortex           | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + |   | 65        |         |
| Adenoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1         |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3         |         |
| Adrenal Gland, Medulla          | + | + | + | + | + | + | M | M | + | + | + | + | + | M |   |   |   | 61        |         |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4         |         |
| Pheochromocytoma Nos            |   |   | X |   | X | X |   |   |   |   |   |   |   |   |   |   |   | 17        |         |
| Islets, Pancreatic              | + |   |   | + |   |   |   |   |   |   | + |   |   |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:11

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

| DAY ON TEST                | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|----------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                            | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                            | 6         | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |         |
|                            | 5         | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 |         |
|                            | 5         | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 |         |
|                            | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                            | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |         |
|                            | 1         | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 |         |
|                            | 6         | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 |         |
|                            | 5         | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 |         |
| Adenoma                    |           |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   | 11      |
| Parathyroid Gland          | +         | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 55      |
| Pituitary Gland            | +         | + | + | + | + | + | M | M | + | I | M | + | + | I | + | M | 53      |
| Adenoma                    |           |   | X | X | X |   |   |   | X |   |   | X |   |   |   |   | 30      |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Pars Distalis, Adenoma     |           |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1       |
| Thyroid Gland              | +         | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 56      |
| Adenoma                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| C Cell, Adenoma            |           |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 3       |
| Follicular Cel, Carcinoma  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>General Body System</b> |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Tissue NOS                 |           |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   | 9       |
| Fibroma                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3       |
| Fibrosarcoma               |           |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   | 3       |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2       |
| <b>Genital System</b>      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Epididymis                 | +         | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 67      |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Penis                      |           |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   | 2       |
| Preputial Gland            |           |   | M | M | + |   | M | + | + | M | + | M | M | + | M | + | 31      |
| Prostate                   | +         | M | + | + | + | A | + | + | + | + | + | + | + | M | + | + | 64      |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:12

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

|                                 | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
|---------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
|                                 | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |    |         |
|                                 | 6           | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |    |         |
|                                 | 5           | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 |    |         |
|                                 | 5           | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 |    |         |
| 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 | 1 | 1 |    |         |
|                                 | 1           | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 |    |         |
|                                 | 6           | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 |    |         |
|                                 | 5           | 6 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2  | *TOTALS |
| Seminal Vesicle                 | +           | + | + | + |   | A | + | + | + | + | + | + | + | M |   | + | 59 |         |
| Leukemia Mononuclear            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Testes                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 65 |         |
| Interstit Cell, Adenoma         |             |   |   | X | X | X |   |   | X |   | X |   | X |   | X |   | 28 |         |
| Leukemia Mononuclear            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 3  |         |
| <b>Hematopoietic System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Bone Marrow                     | +           | + |   |   | + |   | + | + | + | + |   |   | + | M | + | + | 44 |         |
| Leukemia Mononuclear            |             |   |   |   |   |   |   |   |   |   |   |   |   |   | X | X | 4  |         |
| Lymph Node                      | +           | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 57 |         |
| Bronchial, Leukemia Mononuclear |             |   |   |   |   | X |   |   |   |   |   | X |   |   |   | X | 15 |         |
| Lymph Node, Mandibular          | +           | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 64 |         |
| Leukemia Mononuclear            |             |   |   |   |   | X |   |   |   |   |   | X |   |   |   | X | 19 |         |
| Lymph Node, Mesenteric          | +           | M | M | + | M | + | M | + | + | + |   | M |   | M | + | + | 27 |         |
| Leukemia Mononuclear            | X           |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 15 |         |
| Spleen                          | +           | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 67 |         |
| Leukemia Mononuclear            | X           |   |   |   |   | X |   |   |   |   | X | X |   |   | X | X | 34 |         |
| Thymus                          | M           | M | + | + | M | M | + | M | + | + | + | + | + | M | M | + | 37 |         |
| Leukemia Mononuclear            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 4  |         |
| Thymoma Nos                     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| <b>Integumentary System</b>     |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Mammary Gland                   | M           | + | + | + |   | M | M | M |   | M | + | + | + | M | + | + | 29 |         |
| Skin                            | +           | + |   | + | + | + | + | + | + | + | + | + | + | M | + | + | 66 |         |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:12

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

| DAY ON TEST                          | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|
|                                      | 6 | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |                |
|                                      | 5 | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 |                |
|                                      | 5 | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 |                |
| 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 | 1 | 1 |                |
|                                      | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 |                |
|                                      | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 |                |
|                                      | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | <b>*TOTALS</b> |
| Fibroma                              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Fibrosarcoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Keratoacanthoma                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2              |
| Leukemia Mononuclear                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Squamous Cell Carcinoma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Subcut Tiss, Fibrosarcoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| <b>Musculoskeletal System</b>        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Bone                                 |   | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 67             |
| Skeletal Muscle                      |   | + | + |   | + | + | + | + | + | + | + | + | + | M | M | + | 56             |
| <b>Nervous System</b>                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Brain                                |   | + | + | + | + | + |   | + | + | + | + | + | + | + | + | + | 68             |
| Leukemia Mononuclear                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X | 4              |
| Brain, Cerebrum                      |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   | 1              |
| Medulloblastoma Nos                  |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 1              |
| <b>Respiratory System</b>            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Larynx                               |   | + | + | + | + | + | + | M | + | + | + | + | + | M | + | + | 55             |
| Carcinoma, Metastatic, Thyroid Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Lung                                 |   | + | + | + | + | + | + | M | + | + | + | + |   | + | + | + | 54             |
| Alveolar/Bronchiolar Carcinoma       |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1              |
| Leukemia Mononuclear                 |   |   |   |   |   |   | X |   |   |   |   | X |   |   |   | X | 14             |
| Nose                                 |   | + | + | + | + | + | A | + | + | + | + | + | + | M | + | + | 63             |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:12

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 24 MO

| DAY ON TEST                  | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |                |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|
|                              | 6 | 6 | 6 | 7 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 6 | 5 | 4 | 5 | 7 |                |
|                              | 5 | 2 | 8 | 8 | 6 | 2 | 7 | 7 | 8 | 8 | 8 | 0 | 6 | 2 | 6 | 6 |                |
|                              | 5 | 7 | 3 | 7 | 9 | 4 | 4 | 4 | 7 | 2 | 7 | 8 | 1 | 2 | 6 | 4 |                |
| 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 | 1 | 1 |                |
|                              | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 |                |
|                              | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 1 | 1 |                |
|                              | 5 | 6 | 7 | 8 | 9 | 0 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 | <b>*TOTALS</b> |
| Leukemia Mononuclear         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Septum, Polyp                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Trachea                      | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 58             |
| <b>Special Senses System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Eye                          | + | + | + | + | + | + | + | I | + | + | + | + | + | + | + | + | 66             |
| Leukemia Mononuclear         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| Harderian Gland              |   |   |   |   | M |   | M | + | + |   | M | M | M | + | M |   | 16             |
| Lacrimal Gland               | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 67             |
| Leukemia Mononuclear         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1              |
| <b>Urinary System</b>        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Kidney                       | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | 66             |
| Leukemia Mononuclear         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5              |
| Urethra                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2              |
| Urinary Bladder              | + | + | + | + | + | + | + | + | + | + |   | + | + | M | + | + | 60             |
| Leukemia Mononuclear         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2              |
| <b>SYSTEMIC LESIONS</b>      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |
| Multiple Organ               | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 78             |
| Leukemia Mononuclear         | X |   |   |   |   | X |   |   |   |   | X | X |   |   | X | X | 39             |

\* ..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







Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:13

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 12 MO | 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 |   |   |   |   |
|                                    | 7           | 6 | 6 | 0 | 7 | 0 | 5 | 4 | 7 | 5 | 7 | 0 | 7 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 0 | 7 | 3 | 7 | 7 |   |   |
| ANIMAL ID                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|                                    | 2           | 2 | 8 | 9 | 3 | 9 | 8 | 2 | 2 | 6 | 4 | 9 | 5 | 4 | 8 | 9 | 7 | 0 | 6 | 3 | 4 | 2 | 7 | 9 | 8 | 4 | 9 | 3 | 7 | 4 | 2 |   |
|                                    | 2           | 1 | 3 | 3 | 8 | 3 | 6 | 1 | 4 | 1 | 5 | 3 | 4 | 3 | 1 | 0 | 1 | 4 | 7 | 7 | 5 | 3 | 7 | 1 | 7 | 7 | 3 | 9 | 3 | 7 | 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 | 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 | 3 | 3 |   |
|                                    | 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 | 2 | 2 | 2 | 3 | 3 | 3 |   |
|                                    | 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 |   |
| Pars Distalis, Adenoma             |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thyroid Gland                      | +           | + | + |   | M | + |   | + |   | + |   |   | + | + | + | + | + | + | + | M | + | + |   | + | + | + |   | + | M | + | + |   |
| C Cell, Adenoma                    |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |
| C Cell, Carcinoma                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |
| Follicular Cel, Adenoma            | X           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |
| Follicular Cel, Carcinoma          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>General Body System</b>         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Tissue NOS                         | A           |   |   |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   | + |   |   |   |   | + |   |   | + |   |
| Fibroma                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |
| Fibrosarcoma                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |
| Sarcoma                            |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Genital System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Epididymis                         | +           | + | + |   | + |   | + |   | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Penis                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | + |
| Preputial Gland                    | +           | + | + |   | + |   | + |   | + |   | + |   | + | + | + | M | + | + | + | M | + | A |   | M | M | + |   | + | M | + | + |   |
| Carcinoma                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Prostate                           | +           | + | + |   | + |   | + |   | + |   | + |   | + | + | + | M | + | + | + | + | + | + | A |   | + | + | + |   | + | + | + | + |
| Seminal Vesicle                    | +           | + | + |   | + |   | + |   | + |   | + |   | + | A | + | M | + | + | + | + | + | + | M |   | + | + | + |   | + | + | + | + |
| Leukemia Mononuclear               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |
| Testes                             | +           | + | + |   | + |   | + |   | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Interstit Cell, Adenoma            | X           |   | X |   | X |   |   |   | X |   | X |   | X | X | 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





Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:14

First Dose M/F: NA / NA

Lab: NORTHROP

| DAY ON TEST             | 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 |   |   |
| <b>F 344/N Rat Male</b> | 7         | 6 | 6 | 0 | 7 | 0 | 5 | 4 | 7 | 5 | 7 | 0 | 7 | 7 | 7 | 6 | 7 | 5 | 7 | 7 | 7 | 5 | 6 | 7 | 7 | 0 | 7 | 3 | 7 | 7 |   |
| <b>10 MG/M3 12 MO</b>   | 2         | 2 | 8 | 9 | 3 | 9 | 8 | 2 | 2 | 6 | 4 | 9 | 5 | 4 | 8 | 9 | 7 | 0 | 6 | 3 | 4 | 2 | 7 | 9 | 8 | 4 | 9 | 3 | 7 | 4 | 2 |
|                         | 2         | 1 | 3 | 3 | 8 | 3 | 6 | 1 | 4 | 1 | 5 | 3 | 4 | 3 | 1 | 0 | 1 | 4 | 7 | 7 | 5 | 3 | 7 | 1 | 7 | 7 | 3 | 9 | 3 | 7 | 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 | 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 | 3 | 3 |
|                         | 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 | 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 | 6 | 7 | 8 | 9 | 0 | 1 |

|                                                       |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-------------------------------------------------------|---|---|---|--|---|--|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Osteosarcoma, Metastatic, Tissue Nos                  | X |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Pheochromocytoma Malignant, Metastatic, Adrenal Gland | X |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Squamous Cell Carcinoma, Metastatic, Skin             | X |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Nose                                                  | + | + | + |  | + |  | + |  | + |  | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Trachea                                               | + |   | + |  | M |  | + |  | + |  | + |   | + | + | + | + | + | + | M | + | + |   | A | + | + |   | + | M | + | + |
| <b>Special Senses System</b>                          |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Eye                                                   | + | + | + |  | + |  | + |  | + |  | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Metastatic, Zymbal'S Gland                 |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Harderian Gland                                       | + | + | + |  | M |  | + |  | M |  | + | + | + | + | + | + | + | + | M | + | + |   | + | M | + |   | + | + | + | + |
| Lacrimal Gland                                        | M | + | + |  | + |  | + |  | M |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Zymbal's Gland                                        |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Carcinoma                                             |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Urinary System</b>                                 |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Kidney                                                | + | + | + |  | + |  | + |  | + |  | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Urinary Bladder                                       | A | + | + |  | + |  | + |  | + |  | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear                                  | X |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>SYSTEMIC LESIONS</b>                               |   |   |   |  |   |  |   |  |   |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Multiple Organ                                        | + | + | + |  | + |  | + |  | + |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear                                  |   | X | X |  | X |  | X |  | X |  | X | X | X |   | X | X | X | X | 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







Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:15

First Dose M/F: NA / NA

Lab: NORTHROP

| 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 |
|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male | 7 | 6 | 6 | 7 | 6 | 5 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 7 | 6 | 6 | 7 | 7 | 3 | 7 | 6 | 3 | 6 | 7 | 7 | 7 |   |   |
| 10 MG/M3 12 MO   | 8 | 9 | 3 | 6 | 9 | 8 | 8 | 6 | 8 | 3 | 4 | 3 | 3 | 5 | 8 | 2 | 0 | 8 | 7 | 3 | 3 | 2 | 2 | 1 | 3 | 7 | 8 | 5 | 7 | 6 | 8 |   |   |
| ANIMAL ID        | 7 | 6 | 4 | 6 | 0 | 6 | 8 | 1 | 7 | 9 | 5 | 3 | 8 | 4 | 7 | 6 | 7 | 8 | 3 | 8 | 7 | 5 | 7 | 2 | 8 | 3 | 8 | 2 | 3 | 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 | 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 | 3 | 3 | 3 |   |
|                  | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |   |
|                  | 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 | 2 |   |   |

|                            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Pars Distalis, Adenoma     |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Thyroid Gland              | + | + | A | + | + | + | + | A | + | + | + | + | M | + | + |   | + | + | M | M | M | + | + | + | M | M | + | + | M | + | + |   |   |   |   |   |  |
| C Cell, Adenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| C Cell, Carcinoma          |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Follicular Cel, Adenoma    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Follicular Cel, Carcinoma  |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>General Body System</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Tissue NOS                 |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Fibroma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Fibrosarcoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Sarcoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Genital System</b>      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Epididymis                 | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Penis                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Preputial Gland            | + | M | M | + | + | + | M |   | + | + | + | + | M | + | + |   | + | M | + | M | M | + | + | + | M | + | M | M | M | + | + |   |   |   |   |   |  |
| Carcinoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Prostate                   | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Seminal Vesicle            | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Testes                     | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Interstit Cell, Adenoma    | X | X | X | X |   | X | X |   |   | X | X |   | X | 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

**Experiment Number:** 05083-01  
**Test Type:** CHRONIC  
**Route:** RESPIRATORY EXPOSURE WHOLE BODY  
**Species/Strain:** Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**  
**Test Compound:** Wollastonite calcium silicates  
**CAS Number:** 13983-17-0

**Date Report Requested:** 10/23/2014  
**Time Report Requested:** 12:33:15  
**First Dose M/F:** NA / NA  
**Lab:** NORTHROP

**F 344/N Rat Male**  
**10 MG/M3 12 MO**

| 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 |   |   |   |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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 | 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 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |
|             | 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 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 |

**Hematopoietic System**

|                                                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
|------------------------------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Bone Marrow                                                      | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | M | + | A | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |   |   |  |  |  |
| Leukemia Mononuclear                                             | X | X |   |   |   |   |   |   |   | X | X |   | X |   | X | X |   | X |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Lymph Node                                                       | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | M | + | A | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |   |   |  |  |  |
| Bronchial, Leukemia Mononuclear                                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Bronchial, Pheochromocytoma Malignant, Metastatic, Adrenal Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Pancreatic, Leukemia Mononuclear                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Lymph Node, Mandibular                                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | M | + | + | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |   |  |  |  |
| Leukemia Mononuclear                                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Lymph Node, Mesenteric                                           | + | M | + | M | M |   | + | + |   | + | + | + | M | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | M | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   |  |  |  |
| Leukemia Mononuclear                                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Spleen                                                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |  |
| Leukemia Mononuclear                                             | X | X |   |   |   |   |   |   | X | X | X |   | X |   | X | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Pheochromocytoma Malignant, Metastatic, Adrenal Gland            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Pheochromocytoma Nos, Metastatic, Adrenal Gland                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
| Thymus                                                           | + | M | M | M | M | M | + | A | M | + | + | + | M | M | M |   | + | + | M | M | M | + | + | + | M | M | + | M | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |  |  |  |
| Leukemia Mononuclear                                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |

**Integumentary System**

|               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |  |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Mammary Gland | + | + | + | M | + | + | + | + | + | + | + | M | M | + | M | + | + | + | + | M | M | M | M | M | M | M | + | M | + | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |  |  |
| 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:15

First Dose M/F: NA / NA

Lab: NORTHROP

|                                                  |           | 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 |   |   |   |   |
| <b>F 344/N Rat Male</b><br><b>10 MG/M3 12 MO</b> | ANIMAL ID | 7           | 6 | 6 | 7 | 6 | 5 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 7 | 6 | 6 | 7 | 7 | 3 | 7 | 6 | 3 | 6 | 7 |   |   |   |
|                                                  |           | 8           | 9 | 3 | 6 | 9 | 8 | 8 | 6 | 8 | 3 | 4 | 3 | 3 | 5 | 8 | 2 | 0 | 8 | 7 | 3 | 3 | 2 | 2 | 1 | 3 | 7 | 8 | 5 | 7 | 6 | 8 |   |
|                                                  |           | 7           | 6 | 4 | 6 | 0 | 6 | 8 | 8 | 1 | 7 | 9 | 5 | 3 | 8 | 4 | 7 | 6 | 7 | 8 | 3 | 8 | 7 | 5 | 7 | 2 | 8 | 3 | 8 | 2 | 3 | 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 | 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 | 3 | 3 | 3 |   |
|                                                  | 3         | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |   |
|                                                  | 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 | 2 | 3 |   |

|                                       |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|---------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Adenoma                               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Fibroadenoma                          |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Skin                                  |  | + | + | + | + | + | M | + | + | + | + | M | M | + | M | + |   |   | + | + | + | + | + | M | M | + | + | + | + | M | + | + | + |  |  |
| Keratoacanthoma                       |  |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |  |  |
| Leukemia Mononuclear                  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Papilloma                             |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Sebaceous Gland, Adenoma              |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Squamous Cell Carcinoma               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Squamous Cell Papilloma               |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>Musculoskeletal System</b>         |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Bone                                  |  | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |   | + | + | M | + | + | + | M | + | + | M | + | + | M | + | + | + |  |  |
| Skeletal Muscle                       |  | + | + | + | + | + | + | + | + | + | + | M | M | + | M | + |   |   | + | + | + | + | + | M | M | + | + | + | + | + | + | + | + |  |  |
| <b>Nervous System</b>                 |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Brain                                 |  | + | + | + | + | + | + | + | A | + | + | + | + | + | + |   |   | + | + | M | + | + | + | + | + | + | + | M | + | + | A | + | + |  |  |
| Leukemia Mononuclear                  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| <b>Respiratory System</b>             |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Larynx                                |  | + | + | + | + | + | + | + | A | + | + | + | + | M | + | + |   |   | + | + | M | M | M | + | + | + | M | M | + | + | M | + | + |  |  |
| Lung                                  |  | + | + | + | + | + | + | + | A | + | + | + | + | M | + | + |   |   | + | + | M | M | M | + | + | + | M | M | + | + | M | + | + |  |  |
| Carcinoma, Metastatic, Zymbal'S Gland |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Carcinoma                             |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
| Leukemia Mononuclear                  |  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |  |
|                                       |  |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:15

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 12 MO                    | 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 |   |   |   |   |   |  |
|                                                       | 7           | 6 | 6 | 7 | 6 | 5 | 7 | 3 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 6 | 7 | 3 | 7 | 7 | 6 | 6 | 7 | 7 | 3 | 7 | 6 | 3 | 6 | 7 |   |   |   |   |  |
|                                                       | 8           | 9 | 3 | 6 | 9 | 8 | 8 | 6 | 8 | 3 | 4 | 3 | 3 | 5 | 8 | 2 | 0 | 8 | 7 | 3 | 3 | 2 | 2 | 1 | 3 | 7 | 8 | 5 | 7 | 6 | 8 |   |   |   |  |
|                                                       | 7           | 6 | 4 | 6 | 0 | 6 | 8 | 8 | 1 | 7 | 9 | 5 | 3 | 8 | 4 | 7 | 6 | 7 | 8 | 3 | 8 | 7 | 5 | 7 | 2 | 3 | 8 | 2 | 3 | 8 | 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 | 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 | 3 |   |   |   |   |  |
|                                                       | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 |   |   |   |  |
|                                                       | 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 | 2 |   |   |   |  |
| Osteosarcoma, Metastatic, Tissue Nos                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pheochromocytoma Malignant, Metastatic, Adrenal Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Squamous Cell Carcinoma, Metastatic, Skin             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Nose                                                  | +           | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | + | + | M | + | + |   |   |  |
| Trachea                                               | +           | + | + | + | + | + | + | A | + | + | + | + | M | + | + |   |   |   |   | + | + | M | M | M | + | + | + | M | M | + | + | M | + | + |  |
| <b>Special Senses System</b>                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Eye                                                   | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + |   |  |
| Carcinoma, Metastatic, Zymbal'S Gland                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Harderian Gland                                       | +           | + | + | + | + | + | + | A | M | + | + | + | M | + | + |   |   |   |   | M | M | M | M | M | + | + | + | M | M | M | M | + | + | M |  |
| Lacrimal Gland                                        | +           | + | + | + | + | + | + | + | + | + | + | + | M | + | + |   |   |   |   | + | + | M | + | + | + | + | + | M | + | + | M | + | + | + |  |
| Zymbal's Gland                                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Carcinoma                                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Urinary System</b>                                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Kidney                                                | +           | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + |   |  |
| Urinary Bladder                                       | +           | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>SYSTEMIC LESIONS</b>                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Multiple Organ                                        | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Leukemia Mononuclear                                  | X           | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 12 MO

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 3 | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0 |
|             | 7 | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9 |
|             | 3 | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 3 |
| 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 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|             | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

\*TOTALS

Alimentary System

|                                                 |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |    |
|-------------------------------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                                       | M | + | + |  | + | + | + | + | + |   | + | + | + | + |   | 60 |
| Intestine Large, Cecum                          | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 51 |
| Intestine Large, Colon                          | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 52 |
| Intestine Large, Rectum                         | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 53 |
| Intestine Small, Duodenum                       | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 55 |
| Intestine Small, Ileum                          | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 52 |
| Intestine Small, Jejunum                        | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 53 |
| Liver                                           | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 63 |
| Adenoma                                         |   |   |   |  |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear                            |   |   |   |  |   |   |   | X | X | X |   |   |   | X |   | 30 |
| Pheochromocytoma Nos, Metastatic, Adrenal Gland |   |   |   |  |   |   | X |   |   |   |   |   |   |   |   | 1  |
| Pancreas                                        | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 58 |
| Leukemia Mononuclear                            |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands                                 | M | + | + |  | + | + | M | M | + | + |   | M | + | M | + | 51 |
| Stomach, Forestomach                            | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 63 |
| Fibroma                                         |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Glandular                              | + | + | + |  | + | + | M | + | + | + |   | + | + | + | + | 60 |
| Tongue                                          |   |   |   |  |   |   |   | + |   |   |   | + |   |   |   | 4  |
| Squamous Cell Papilloma                         |   |   |   |  |   |   | X |   |   |   |   |   |   |   |   | 1  |

Cardiovascular 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 12 MO

|                                       | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | *TOTALS |
|---------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
|                                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |         |
|                                       | 3           | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0  |         |
|                                       | 7           | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9  |         |
|                                       | 3           | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 3  |         |
| 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  |         |
|                                       | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3  |         |
|                                       | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  |         |
|                                       | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  |         |
| Heart                                 | M           | + | + |   | + | + | + | + | + |   | + | + | + | + |   | 63 |         |
| Leukemia Mononuclear                  |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 2  |         |
| <b>Endocrine System</b>               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Adrenal Gland                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 0  |         |
| Adrenal Gland, Cortex                 | +           | + | + |   | + | + | + | + | + |   | + | + | + | + |   | 63 |         |
| Adenoma                               |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 1  |         |
| Leukemia Mononuclear                  |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1  |         |
| Adrenal Gland, Medulla                | +           |   | + |   | + | + | + | + | + |   | + | + | + | + |   | 60 |         |
| Bilateral, Pheochromocytoma Nos       |             |   |   |   |   |   |   |   | X |   |   |   |   |   |   | 5  |         |
| Leukemia Mononuclear                  |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   | 1  |         |
| Pheochromocytoma Malignant            |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   | 3  |         |
| Pheochromocytoma Nos                  |             |   | X |   |   |   |   |   | X |   |   |   |   |   |   | 13 |         |
| Pheochromocytoma Nos, Multiple        |             |   |   |   | X |   |   |   |   |   |   |   |   |   |   | 2  |         |
| Islets, Pancreatic                    | +           |   | + |   |   |   |   | + |   |   |   |   |   |   |   | 8  |         |
| Adenoma                               |             |   | X |   |   |   |   | X |   |   |   |   |   |   |   | 5  |         |
| Carcinoma                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Parathyroid Gland                     | M           | + | + |   | + | + | + | + | + |   | M | + | + | + |   | 52 |         |
| Adenoma                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Pituitary Gland                       | +           | + | + |   | + | + | + | + | + |   | + | + | + | + |   | 56 |         |
| Adenoma                               |             | X |   |   | X |   |   | X | X |   |   | X |   |   |   | 29 |         |
| Carcinoma, Metastatic, Zymbal'S Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |         |
| Leukemia Mononuclear                  |             |   |   |   |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 12 MO

| DAY ON TEST                | ANIMAL ID |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | *TOTALS |
|----------------------------|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---------|
|                            | 0         | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |         |
|                            | 3         | 5 | 7 | 0 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0 |    |         |
|                            | 7         | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9  |         |
|                            | 3         | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 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  |         |
|                            | 3         | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3  |         |
|                            | 6         | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7  |         |
|                            | 3         | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8  |         |
| Pars Distalis, Adenoma     |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Thyroid Gland              | M         | + | + |   | + | + | A | + | + | + |   | M | + | + | + | 52 |         |
| C Cell, Adenoma            |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3       |
| C Cell, Carcinoma          |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 2       |
| Follicular Cel, Adenoma    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 3       |
| Follicular Cel, Carcinoma  |           |   |   |   |   |   |   |   |   |   |   |   |   | X |   |    | 2       |
| <b>General Body System</b> |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Tissue NOS                 |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 7       |
| Fibroma                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Fibrosarcoma               |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Sarcoma                    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| <b>Genital System</b>      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |         |
| Epididymis                 |           | + | + | + |   | + | + | M | + | + | + |   | + | + | + | +  | 65      |
| Penis                      |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Preputial Gland            |           | + | M | M |   | M | + | M | + | + | + |   | + | + | + | +  | 45      |
| Carcinoma                  |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Prostate                   |           | + | + | + |   | + | + | M | + | + | + |   | + | + | + | +  | 62      |
| Seminal Vesicle            |           | + | + | + |   | + | + | M | + | + | + |   | + | + | + | +  | 61      |
| Leukemia Mononuclear       |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 1       |
| Testes                     |           | + | + | + |   | + | + | M | + | + | + |   | + | + | + | +  | 65      |
| Interstit Cell, Adenoma    |           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    | 44      |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 12 MO

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|             | 3 | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0 |
|             | 7 | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9 |
|             | 3 | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 3 |
| 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 |
|             | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
|             | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
|             | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |

\*TOTALS

Hematopoietic System

|                                                                  |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   |    |
|------------------------------------------------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow                                                      | + | + | + |  | + | + | + | + | + |   | + | + | + | + |   | 59 |
| Leukemia Mononuclear                                             |   |   |   |  |   |   | X |   | X | X |   |   |   |   |   | 15 |
| Lymph Node                                                       | M | + | + |  | + | + | + | + | + |   | M | + | + | + |   | 56 |
| Bronchial, Leukemia Mononuclear                                  |   |   |   |  |   |   | X |   |   | X |   |   |   | X |   | 11 |
| Bronchial, Pheochromocytoma Malignant, Metastatic, Adrenal Gland |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pancreatic, Leukemia Mononuclear                                 |   |   |   |  |   |   |   |   | X |   |   |   |   |   |   | 3  |
| Lymph Node, Mandibular                                           | M | + | + |  | + | + | + | M |   | + |   | M | + | M | + | 52 |
| Leukemia Mononuclear                                             |   |   |   |  |   |   |   |   |   | X |   |   |   |   | X | 16 |
| Lymph Node, Mesenteric                                           | M | + | + |  | + | + | + | + |   | + |   | + | + | + | + | 48 |
| Leukemia Mononuclear                                             |   |   |   |  |   |   |   |   |   | X |   |   |   | X | X | 13 |
| Spleen                                                           | + | + | + |  | + | + | + | + | + | + |   | + | + | + | + | 64 |
| Leukemia Mononuclear                                             | X |   |   |  |   |   | X | X | X | X |   |   |   |   |   | 33 |
| Pheochromocytoma Malignant, Metastatic, Adrenal Gland            |   |   |   |  |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Pheochromocytoma Nos, Metastatic, Adrenal Gland                  |   |   |   |  |   | X |   |   |   |   |   |   |   |   |   | 1  |
| Thymus                                                           | M | + | + |  | M | + | M | + | M | + |   | + | + | M | M | 36 |
| Leukemia Mononuclear                                             |   |   |   |  |   |   |   |   |   | X |   |   |   |   |   | 3  |

Integumentary System

|               |   |   |   |  |   |   |   |   |   |   |  |   |   |   |   |    |
|---------------|---|---|---|--|---|---|---|---|---|---|--|---|---|---|---|----|
| Mammary Gland | M | + | + |  | + | + | M | M | + | M |  | + | + | + | + | 36 |
| Adenoma       |   |   |   |  | 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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3 12 MO

| DAY ON TEST                           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0              |    |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|----|
|                                       | 3 | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0 |                |    |
|                                       | 7 | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9 |                |    |
|                                       | 3 | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 3 |                |    |
| 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 |                |    |
|                                       | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |                |    |
|                                       | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |                |    |
|                                       | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |                |    |
|                                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | <b>*TOTALS</b> |    |
| Adenoma                               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X              | 1  |
| Fibroadenoma                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Skin                                  | + | + | + |   | + | + | + | + | + | M |   | + | + | + | + |   | 55             |    |
| Keratoacanthoma                       |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 3  |
| Leukemia Mononuclear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Papilloma                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Sebaceous GI, Adenoma                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Squamous Cell Carcinoma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Squamous Cell Papilloma               |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| <b>Musculoskeletal System</b>         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |    |
| Bone                                  | + | + | + |   | + | + | + | + | + | + |   | + | + | + | + |   | 61             |    |
| Skeletal Muscle                       | + | + | + |   | + | + | + | + | + | M |   | + | + | + | + |   | 55             |    |
| <b>Nervous System</b>                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |    |
| Brain                                 | M | + | + |   | + | + | + | + | + | + |   | + | + | + | + |   | 61             |    |
| Leukemia Mononuclear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X              | 2  |
| <b>Respiratory System</b>             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                |    |
| Larynx                                | M | + | + |   | + | + | + | + | + | + |   | M | + | + | + |   | 50             |    |
| Lung                                  | M | + | + |   | + | + | + | + | + | + |   | M | + | + | + |   | 54             |    |
| Carcinoma, Metastatic, Zymbal'S Gland |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Carcinosarcoma                        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |                | 1  |
| Leukemia Mononuclear                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X              | 15 |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:16

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3 12 MO                    | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|-------------------------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                                                       | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                                                       | 3           | 5 | 7 | 0 | 7 | 7 | 7 | 7 | 6 | 7 | 6 | 3 | 5 | 6 | 7 | 0 |         |
|                                                       | 7           | 1 | 8 | 9 | 8 | 8 | 1 | 4 | 9 | 5 | 7 | 7 | 9 | 4 | 8 | 9 |         |
|                                                       | 3           | 4 | 7 | 3 | 7 | 8 | 6 | 3 | 1 | 4 | 4 | 3 | 1 | 1 | 8 | 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 |         |
|                                                       | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |         |
|                                                       | 6           | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |         |
|                                                       | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |         |
|                                                       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Osteosarcoma, Metastatic, Tissue Nos                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Pheochromocytoma Malignant, Metastatic, Adrenal Gland |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Squamous Cell Carcinoma, Metastatic, Skin             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Nose                                                  | M           | + | + |   | + | + | + | + | + |   | + | + | + | + |   |   | 60      |
| Trachea                                               | M           | + | + |   | + | + | + | + | + |   | M | + | + | + |   |   | 52      |
| <b>Special Senses System</b>                          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Eye                                                   | +           | + | + |   | + | + | + | + | + |   | + | + | + | + |   |   | 65      |
| Carcinoma, Metastatic, Zymbal'S Gland                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Harderian Gland                                       | M           | + | + |   | M | + | + | M | + | + |   | + | + | + | M |   | 46      |
| Lacrimal Gland                                        | M           | + | + |   | + | + | + | + | + | + |   | + | + | + | + |   | 60      |
| Zymbal's Gland                                        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Carcinoma                                             |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>Urinary System</b>                                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Kidney                                                | +           | + | + |   | + | + | M | + | + | + |   | + | + | + | + |   | 62      |
| Urinary Bladder                                       | +           | + | + |   | + | + | M | + | + | + |   | + | + | + | + |   | 63      |
| Leukemia Mononuclear                                  |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>SYSTEMIC LESIONS</b>                               |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Multiple Organ                                        | +           | + | + |   | + | + | + | + | + | + |   | + | + | + | + |   | 67      |
| Leukemia Mononuclear                                  | X           |   |   |   |   |   | X | X | X | X |   |   |   | X | X |   | 37      |

\* ..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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:17

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |   |  |
|                                      | 7           | 7 | 3 | 7 | 0 | 7 | 0 | 7 | 7 | 7 | 7 | 5 | 7 | 3 | 7 | 7 | 7 | 5 | 3 | 0 | 7 | 7 | 5 | 4 | 6 | 7 | 6 | 7 | 5 | 7 | 6 |  |
| ANIMAL ID                            | 1           | 1 | 8 | 8 | 9 | 8 | 9 | 8 | 3 | 3 | 3 | 6 | 1 | 7 | 8 | 8 | 3 | 9 | 7 | 9 | 8 | 8 | 4 | 5 | 4 | 4 | 8 | 9 | 5 | 6 |   |  |
|                                      | 9           | 6 | 7 | 7 | 4 | 8 | 4 | 8 | 2 | 8 | 5 | 2 | 4 | 1 | 7 | 8 | 6 | 4 | 4 | 9 | 8 | 7 | 3 | 9 | 9 | 7 | 9 | 7 | 6 | 4 |   |  |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 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 |   |  |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |   |  |
|                                      | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |   |  |
| Heart                                | +           | + | + | + |   | + |   | + | + | + | + | + | + | M | + | + | + | + | M |   | + | + | + |   | + | + | + | + | + | + |   |  |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Endocrine System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Adrenal Gland, Cortex                | +           | + | + | + |   | + |   | + | + | + | + | + | + | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + | + | + |  |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Adrenal Gland, Medulla               | +           | + | + | M |   | + |   | + | + | + | + | + | + | + | + | + | + | + |   | + | + | + |   | + | + | + | + | + | + | + | + |  |
| Bilateral, Pheochromocytoma Benign   | X           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pheochromocytoma Benign              |             |   |   |   |   | X |   |   |   |   |   |   | X |   |   |   | X |   |   |   |   |   | X | X |   |   |   |   |   | X |   |  |
| Pheochromocytoma Benign, Multiple    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pheochromocytoma Malignant           |             |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Islets, Pancreatic                   |             |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Carcinoma                            |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Parathyroid Gland                    | +           | + | + | + |   | + |   | + | + | + | M | + | M | M | + | + | M | + | M |   | + | + | + |   | + | + | + | + | M | + | + |  |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Pituitary Gland                      | +           | + | I | + |   | + |   | + | + | + | + | + | + | M | + | + | + | + | M |   | + | + | + |   | M | + | + | + | + | + | + |  |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

\* ..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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:18

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |
|                                      | 7           | 7 | 3 | 7 | 0 | 7 | 0 | 7 | 7 | 7 | 7 | 5 | 7 | 3 | 7 | 7 | 7 | 5 | 3 | 0 | 7 | 7 | 5 | 4 | 6 | 7 | 6 | 7 | 5 | 7 |
| ANIMAL ID                            | 1           | 1 | 8 | 8 | 9 | 8 | 9 | 8 | 3 | 3 | 3 | 6 | 1 | 7 | 8 | 8 | 3 | 9 | 7 | 9 | 8 | 8 | 4 | 5 | 4 | 4 | 8 | 9 | 5 | 6 |
|                                      | 9           | 6 | 7 | 7 | 4 | 8 | 4 | 8 | 8 | 2 | 8 | 5 | 2 | 4 | 1 | 7 | 8 | 6 | 4 | 4 | 9 | 7 | 3 | 9 | 9 | 7 | 9 | 7 | 6 | 4 |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                      | 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 |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 |
|                                      | 1           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 1 | 2 | 3 | 4 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 |
| Lymph Node, Mesenteric               | M           | M | M | + |   |   |   |   | + | + | + | M | + | M | M | M | + | + | M | M |   |   |   |   |   |   |   |   |   |   |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Spleen                               | +           | + | + | + |   |   |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear                 |             |   | X |   |   |   | X | X | X |   |   | X | X | X | X | X |   |   | X | X | X |   | X |   |   |   |   | X |   |   |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Thymus                               | M           | + | + | + |   |   | + | + | + | M | M | M | M | + | M | M | + | M |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Integumentary System</b>          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Mammary Gland                        | M           | M | M | M |   |   | M |   | + | M | M | + | + | M | M | M | + | + | M | + |   |   |   |   |   |   |   |   |   |   |
| Fibrosarcoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skin                                 | +           | + | + | + |   |   | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Dermis, Adenoma                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibroma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Fibrosarcoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Keratoacanthoma                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Sarcoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| <b>Musculoskeletal System</b>        |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Bone                                 | +           | + | + | + |   |   | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Osteoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Osteosarcoma                         |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| Skeletal Muscle                      | +           | + | + | + |   |   | + | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |   |
| Rhabdomyosarcoma                     |             |   |   | 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







Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:18

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |   |
|                                      | 6           | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 5 | 6 | 6 | 6 | 4 | 7 | 7 | 7 | 7 | 7 | 0 | 6 | 7 | 7 | 6 |
|                                      | 2           | 3 | 8 | 3 | 5 | 4 | 5 | 3 | 0 | 8 | 4 | 2 | 0 | 8 | 6 | 9 | 6 | 2 | 0 | 4 | 7 | 4 | 8 | 3 | 8 | 8 | 5 | 8 | 0 | 3 | 1 |
|                                      | 8           | 8 | 9 | 9 | 6 | 3 | 6 | 7 | 0 | 7 | 3 | 6 | 4 | 7 | 5 | 1 | 5 | 8 | 7 | 6 | 7 | 7 | 8 | 7 | 8 | 7 | 0 | 2 | 5 | 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 | 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 |   |
|                                      | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 |   |
|                                      | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

Alimentary System

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus                       | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Cecum          | + | + | + | + | + | A | + | + | + | + | M | + | + | + | + | A | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Large, Colon          | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Adenocarcinoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Intestine Large, Rectum         | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Duodenum       | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Ileum          | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Intestine Small, Jejunum        | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Liver                           | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Hepatocyte, Adenoma             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear            |   |   | X |   | X | X |   |   |   |   |   |   | X |   | X | X | X |   | X |   |   |   |   |   |   | X |   | X |   | X |   | X |   |  |
| Pancreas                        | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Acinar Cell, Adenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Salivary Glands                 | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Sarcoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Stomach, Forestomach            | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Submucosa, Adenoma              |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Stomach, Glandular              | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | A | + | + | + | + | + | + | + | + | + | + | + | + | + |  |
| Submucosa, Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Cardiovascular 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:19

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |   |  |   |   |   |
|                                      | 6           | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 5 | 6 | 6 | 6 | 4 | 7 | 7 | 7 | 7 | 7 | 0 | 6 | 7 | 6 |   |  |   |   |   |
|                                      | 2           | 3 | 8 | 3 | 5 | 4 | 5 | 3 | 0 | 8 | 4 | 2 | 0 | 8 | 6 | 9 | 6 | 2 | 0 | 4 | 7 | 4 | 8 | 3 | 8 | 8 | 5 | 8 | 0 | 3 | 1 |  |   |   |   |
|                                      | 8           | 8 | 9 | 9 | 6 | 3 | 6 | 7 | 0 | 7 | 3 | 6 | 4 | 7 | 5 | 1 | 5 | 8 | 7 | 6 | 7 | 7 | 8 | 7 | 8 | 7 | 0 | 2 | 5 | 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 | 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 |  |   |   |   |
|                                      | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |  |   |   |   |
|                                      | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |  |   |   |   |
| Heart                                | +           | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M |   | + | + | + | + | + |   |   |   |   |   |   |  |   |   |   |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  | X |   |   |
| <b>Endocrine System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Adrenal Gland, Cortex                | +           | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | M |   | + | + | + | + | + |   |   |   |   |   |   |  |   |   |   |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   | X |   |
| Leukemia Mononuclear                 |             |   |   |   |   | X |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   | X |   |
| Adrenal Gland, Medulla               | +           | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | M | M |   | + | + | + | + | + |   |   |   |   |   |   |  |   |   |   |
| Bilateral, Pheochromocytoma Benign   |             |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   | X |   |
| Leukemia Mononuclear                 |             |   |   |   |   | X |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   | X |   |
| Pheochromocytoma Benign              | X           | X |   |   |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Pheochromocytoma Benign, Multiple    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Pheochromocytoma Malignant           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Islets, Pancreatic                   |             |   |   |   |   |   |   |   |   |   |   | + |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Carcinoma                            |             |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Parathyroid Gland                    | +           | M | + | + | + | + | + | + | + | + | M | + | + | + | I | + | + | + | M | M |   | + | M | + | + |   |   |   |   |   |   |  |   |   |   |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Pituitary Gland                      | +           | I | + | + | + | + | + | + | + | + | M | + | + | M | M | + | I | I | M |   | + | + | + | + | + |   |   |   |   |   |   |  |   |   |   |
| Adenoma                              | X           |   | X | X |   | X | X | X | X | X |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   |   |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:19

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |   |  |
| ANIMAL ID                            | 6           | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 5 | 6 | 6 | 6 | 4 | 7 | 7 | 7 | 7 | 7 | 0 | 6 | 7 | 7 | 6 |  |
|                                      | 2           | 3 | 8 | 3 | 5 | 4 | 5 | 3 | 0 | 8 | 4 | 2 | 0 | 8 | 6 | 9 | 6 | 2 | 0 | 4 | 7 | 4 | 8 | 3 | 8 | 8 | 5 | 8 | 0 | 3 | 1 |  |
|                                      | 8           | 8 | 9 | 9 | 6 | 3 | 6 | 7 | 0 | 7 | 3 | 6 | 4 | 7 | 5 | 1 | 5 | 8 | 7 | 6 | 7 | 7 | 8 | 7 | 8 | 7 | 0 | 2 | 5 | 0 | 0 |  |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  |
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 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 |  |
|                                      | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |   |  |
|                                      | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |  |
| Thyroid Gland                        | +           | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | M | + | M | + | + |   |   |   | + | + | + |   |  |
| Follicular Cel, Adenoma              |             |   |   |   |   |   |   |   | X |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |  |
| <b>General Body System</b>           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Tissue NOS                           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | A |   |   |   |   |   |   |   |   |   |   |   |  |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|                                      |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Genital System</b>                |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Epididymis                           | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |   |   |   | + | + | + |   |  |
| Preputial Gland                      | +           | + | + | M | + | + | + | + | + | M | M | + | M | M | + | M | M | M | M | M | + | M | M | M | + |   |   | + | + | M |   |  |
| Prostate                             | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |   |   |   | + | + | + |   |  |
| Seminal Vesicle                      | +           | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | M | + | + | + | + | + |   |   |   | + | + | + |   |  |
| Testes                               | +           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |   |   |   | A | + | + |   |  |
| Bilateral, Interstit Cell, Adenoma   |             |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Interstit Cell, Adenoma              |             | X |   |   | X |   | X |   |   |   |   |   |   |   |   | X | X |   |   |   |   |   |   |   |   |   |   |   |   |   | X |  |
| Tunic, Mesothelioma Benign           |             |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| <b>Hematopoietic System</b>          |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bone Marrow                          | +           | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + |   |   |   | + | + | + |   |  |
| Leukemia Mononuclear                 |             | X |   |   | X |   |   |   |   |   |   | X | X | X | X |   | X |   |   |   |   |   |   |   | X |   |   | X | X |   |   |  |
| Lymph Node                           | +           | + | + | + | M | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + |   |   |   | + | M | + |   |  |
| Bronchial, Leukemia Mononuclear      |             | X |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |   |   |   |   |   |   |   | X |   |   | X |   |   |   |  |
| Lymph Node, Mandibular               | +           | + | + | + | + | + | M | + | + | + | M | + | + | + | M | + | M | + | M | + | + | + | + |   |   |   |   | M | + | + |   |  |
| Leukemia Mononuclear                 |             | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:19

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
|                                      | 0<br>6<br>2<br>8      | 0<br>7<br>3<br>8      | 0<br>7<br>8<br>9      | 0<br>7<br>3<br>9      | 0<br>6<br>5<br>6      | 0<br>7<br>4<br>3      | 0<br>6<br>5<br>6      | 0<br>7<br>3<br>7      | 0<br>6<br>0<br>7      | 0<br>7<br>8<br>0      | 0<br>7<br>4<br>7      | 0<br>6<br>2<br>3      | 0<br>7<br>0<br>6      | 0<br>5<br>8<br>5      | 0<br>6<br>9<br>1      | 0<br>5<br>6<br>5      | 0<br>6<br>2<br>8      | 0<br>6<br>0<br>7      | 0<br>6<br>4<br>6      | 0<br>7<br>7<br>7      | 0<br>7<br>8<br>8      | 0<br>7<br>3<br>7      | 0<br>7<br>8<br>8      | 0<br>7<br>8<br>7      | 0<br>0<br>5<br>8      | 0<br>6<br>8<br>0      | 0<br>7<br>0<br>5      | 0<br>7<br>3<br>0      | 0<br>6<br>0<br>0      |                       |
| ANIMAL ID                            | 0<br>0<br>4<br>3<br>3 | 0<br>0<br>4<br>3<br>4 | 0<br>0<br>4<br>3<br>5 | 0<br>0<br>4<br>3<br>6 | 0<br>0<br>4<br>3<br>7 | 0<br>0<br>4<br>3<br>8 | 0<br>0<br>4<br>3<br>9 | 0<br>0<br>4<br>4<br>0 | 0<br>0<br>4<br>4<br>1 | 0<br>0<br>4<br>4<br>2 | 0<br>0<br>4<br>4<br>3 | 0<br>0<br>4<br>4<br>4 | 0<br>0<br>4<br>4<br>5 | 0<br>0<br>4<br>4<br>6 | 0<br>0<br>4<br>4<br>7 | 0<br>0<br>4<br>4<br>8 | 0<br>0<br>4<br>4<br>9 | 0<br>0<br>4<br>4<br>0 | 0<br>0<br>4<br>4<br>1 | 0<br>0<br>4<br>4<br>2 | 0<br>0<br>4<br>4<br>3 | 0<br>0<br>4<br>4<br>4 | 0<br>0<br>4<br>4<br>5 | 0<br>0<br>4<br>4<br>6 | 0<br>0<br>4<br>4<br>7 | 0<br>0<br>4<br>4<br>8 | 0<br>0<br>4<br>4<br>9 | 0<br>0<br>4<br>4<br>0 | 0<br>0<br>4<br>4<br>1 | 0<br>0<br>4<br>4<br>2 |
| Lymph Node, Mesenteric               | M                     | +                     | M                     | M                     | M                     | M                     | +                     | +                     | +                     | +                     | M                     | M                     | M                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | M                     | M                     |
| Leukemia Mononuclear                 |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     | X                     | X                     |                       | X                     |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       | X                     |                       |
| Spleen                               | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     |
| Leukemia Mononuclear                 |                       | X                     |                       |                       | X                     |                       |                       |                       |                       |                       | X                     |                       | X                     | X                     | X                     |                       | X                     |                       | X                     |                       |                       |                       | X                     |                       |                       |                       | X                     | X                     |                       |                       |
| Osteosarcoma, Metastatic, Bone       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |
| Thymus                               | M                     | +                     | M                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | M                     | M                     | +                     | M                     | M                     | +                     | M                     | +                     | M                     |                       | M                     | M                     | M                     | M                     | +                     | M                     |                       | M                     | +                     | +                     |
| <b>Integumentary System</b>          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Mammary Gland                        | M                     | M                     | +                     | M                     | +                     | M                     | M                     | M                     | M                     | M                     | M                     | M                     | M                     | +                     | M                     | +                     | +                     | M                     |                       | M                     | M                     | M                     | +                     | M                     | M                     |                       |                       | +                     | +                     | M                     |
| Fibrosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |
| Skin                                 | M                     | +                     | M                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     |                       | M                     | M                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | M                     |
| Dermis, Adenoma                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Fibroma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Fibrosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |
| Keratoacanthoma                      |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Sarcoma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| <b>Musculoskeletal System</b>        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Bone                                 | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | +                     | +                     | +                     | M                     |                       |                       | +                     | +                     | +                     | +                     |                       |                       | +                     | +                     | +                     |
| Osteoma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |
| Osteosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |
| Skeletal Muscle                      | M                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | +                     | M                     | +                     | +                     | +                     | M                     | +                     | +                     | M                     |                       | M                     | M                     | +                     | +                     | +                     | +                     |                       | +                     | +                     | M                     |                       |
| Rhabdomyosarcoma                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |

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

M ..Missing tissue  
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First Dose M/F: NA / NA

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| F 344/N Rat Male<br>10 MG/M3ASBESTOS | 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 |   |   |
|                                      | 6           | 7 | 7 | 7 | 6 | 7 | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 7 | 5 | 6 | 5 | 6 | 6 | 6 | 4 | 7 | 7 | 7 | 7 | 7 | 0 | 6 | 7 | 7 | 6 |
|                                      | 2           | 3 | 8 | 3 | 5 | 4 | 5 | 3 | 0 | 8 | 4 | 2 | 0 | 8 | 6 | 9 | 6 | 2 | 0 | 4 | 7 | 4 | 8 | 3 | 8 | 8 | 5 | 8 | 0 | 3 | 1 |
|                                      | 8           | 8 | 9 | 9 | 6 | 3 | 6 | 7 | 0 | 7 | 3 | 6 | 4 | 7 | 5 | 1 | 5 | 8 | 7 | 6 | 7 | 7 | 8 | 7 | 8 | 7 | 0 | 2 | 5 | 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 | 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 |
|                                      | 3           | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |
|                                      | 3           | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 |

Nervous System

|                      |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain                | + | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |  |
| Fibrous Histiocytoma |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |

Respiratory System

|                                          |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
|------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Larynx                                   | + | M | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |  |
| Lung                                     | + | M | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |  |
| Alveolar/Bronchiolar Adenoma             | X |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   | X | X |   |   |   |   |   |  |
| Alveolar/Bronchiolar Adenoma, Multiple   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Alveolar/Bronchiolar Carcinoma           |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Alveolar/Bronchiolar Carcinoma, Multiple |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Bronchiole, Carcinoma                    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Leukemia Mononuclear                     |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | X |   |  |
| Osteosarcoma, Metastatic, Bone           |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   |   |   |   |  |
| Sarcoma, Metastatic, Skin                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |  |
| Nose                                     | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | A | + | + | M | + | + | + | + | + | + | + | + | + | + | + |  |
| Trachea                                  | + | M | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + |  |

Special Senses System

|                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Eye             | + | + | + | + | + | + | + | + | + | + |   | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Harderian Gland | + | M | M | M | + | + | + | M | + | M | M | + | M | M | + | + | + | + | M | + | + | + | M | M | + | + | + | + | + | + |
| Lacrimal Gland  | + | + | + | + | + | + | + | + | + | + | 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



Experiment Number: 05083-01  
 Test Type: CHRONIC  
 Route: RESPIRATORY EXPOSURE WHOLE BODY  
 Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL  
 Test Compound: Wollastonite calcium silicates  
 CAS Number: 13983-17-0

Date Report Requested: 10/23/2014  
 Time Report Requested: 12:33:20  
 First Dose M/F: NA / NA  
 Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                                      | 6           | 7 | 0 | 6 | 3 | 3 | 0 | 3 | 7 | 7 | 3 | 6 | 7 | 7 | 0 | 3 |         |
|                                      | 4           | 3 | 9 | 0 | 7 | 7 | 9 | 7 | 1 | 0 | 7 | 3 | 3 | 2 | 9 | 8 |         |
|                                      | 9           | 0 | 4 | 7 | 4 | 4 | 4 | 4 | 9 | 1 | 4 | 5 | 8 | 9 | 4 | 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 | 4 | 4 |         |
|                                      | 4           | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 |         |
|                                      | 6           | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 |         |
|                                      | 5           | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 |         |

**Alimentary System**

|                                 |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus                       | + | + | + | M | M | M | + | M | + | + | + | + | + | + | + | 56 |
| Intestine Large, Cecum          | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 53 |
| Intestine Large, Colon          | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 54 |
| Adenocarcinoma                  |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Intestine Large, Rectum         | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 56 |
| Intestine Small, Duodenum       | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 56 |
| Intestine Small, Ileum          | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | 55 |
| Intestine Small, Jejunum        | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | 53 |
| Liver                           | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 63 |
| Hepatocyte, Adenoma             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear            |   | X | X |   |   |   |   |   |   |   |   | X |   |   |   | 26 |
| Pancreas                        | + | + | + | + | + | A | + | + | + | + |   | + | + | + | + | 54 |
| Acinar Cell, Adenoma            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear            |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Salivary Glands                 | M | + | M | M | M | M | + | M | + | + | + | M | + | + | + | 47 |
| Sarcoma                         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |
| Stomach, Forestomach            | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 63 |
| Submucosa, Adenoma              |   |   |   |   |   |   |   |   |   |   |   |   |   | X |   | 1  |
| Stomach, Glandular              | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 61 |
| Submucosa, Leukemia Mononuclear |   |   | X |   |   |   |   |   |   |   |   |   |   |   |   | 1  |

**Cardiovascular 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:20

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | DAY ON TEST |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|--------------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|                                      | 0           | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|                                      | 6           | 7 | 0 | 6 | 3 | 3 | 0 | 3 | 7 | 7 | 3 | 6 | 7 | 7 | 0 | 3 |         |
|                                      | 4           | 3 | 9 | 0 | 7 | 7 | 9 | 7 | 1 | 0 | 7 | 3 | 3 | 2 | 9 | 8 |         |
| ANIMAL ID                            |             | 9 | 0 | 4 | 7 | 4 | 4 | 4 | 4 | 9 | 1 | 4 | 5 | 8 | 9 | 4 | 7       |
|                                      |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0       |
|                                      |             | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 |         |
|                                      |             | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 |         |
|                                      |             | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 |         |
|                                      |             | 5 | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2       |
| Heart                                | +           | + |   | + | M | M |   | + | + |   | M | + | + | + | + | + | 60      |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| <b>Endocrine System</b>              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |         |
| Adrenal Gland, Cortex                | +           | + |   | + | + | + |   | + | + |   | + | + | + | + | M | + | 63      |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2       |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4       |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Adrenal Gland, Medulla               | +           | + |   | + | M | + |   | + | + |   | + | + | + | + | M | + | 61      |
| Bilateral, Pheochromocytoma Benign   |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 6       |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 5       |
| Osteosarcoma, Metastatic, Bone       |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Pheochromocytoma Benign              |             |   | X |   |   |   |   | X |   |   |   | X | X |   |   |   | 14      |
| Pheochromocytoma Benign, Multiple    |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Pheochromocytoma Malignant           |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1       |
| Islets, Pancreatic                   |             | + |   |   |   |   |   |   |   |   |   | + |   | + |   |   | 8       |
| Adenoma                              |             | X |   |   |   |   |   |   |   |   |   | X |   |   |   |   | 4       |
| Carcinoma                            |             |   |   |   |   |   |   |   |   |   |   | X |   | X |   |   | 5       |
| Parathyroid Gland                    | +           | + |   | + | M | M |   | M | + |   | M | + | M | + | + | + | 50      |
| Adenoma                              |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 2       |
| Pituitary Gland                      | +           | + |   | + | M | A |   | + | + |   | + | + | + | + | M | + | 51      |
| Adenoma                              | X           | X |   | X |   |   |   | X |   | X | X | X | X |   | X |   | 37      |
| Leukemia Mononuclear                 |             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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



Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:20

First Dose M/F: NA / NA

Lab: NORTHROP

F 344/N Rat Male  
10 MG/M3ASBESTOS

|                                    | DAY ON TEST    |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
|------------------------------------|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
|                                    | 0              | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0  |  |
|                                    | 6              | 7 | 0 | 6 | 3 | 3 | 0 | 3 | 7 | 7 | 3 | 6 | 7 | 7 | 0 | 3  |  |
|                                    | 4              | 3 | 9 | 0 | 7 | 7 | 9 | 7 | 1 | 0 | 7 | 3 | 3 | 2 | 9 | 8  |  |
|                                    | 9              | 0 | 4 | 7 | 4 | 4 | 4 | 4 | 9 | 1 | 4 | 5 | 8 | 9 | 4 | 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 | 4 | 4  |  |
|                                    | 4              | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1  |  |
|                                    | 6              | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5  |  |
|                                    | 5              | 6 | 6 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2  |  |
|                                    | <b>*TOTALS</b> |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
| Thyroid Gland                      | +              | + |   | + | M | M |   | M | + |   | M | + | M | + | + | +  |  |
| Follicular Cel, Adenoma            |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 4  |  |
| <b>General Body System</b>         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
| Tissue NOS                         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 3  |  |
| Osteosarcoma, Metastatic, Bone     |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |  |
| <b>Genital System</b>              |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
| Epididymis                         | +              | + |   | + | + | + |   | + | + |   | + | + | + | + | + | +  |  |
| Preputial Gland                    | +              | + |   | + | + | M |   | + | + |   | + | M | M | + | M | +  |  |
| Prostate                           | +              | + |   | + | + | + |   | + | + |   | + | + | + | + | + | +  |  |
| Seminal Vesicle                    | +              | + |   | + | + | + |   | + | + |   | + | + | + | + | + | +  |  |
| Testes                             | +              | + |   | + | + | + |   | + | + |   | + | + | + | + | + | +  |  |
| Bilateral, Interstit Cell, Adenoma |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |  |
| Interstit Cell, Adenoma            |                | X |   |   |   |   |   |   |   |   |   |   |   |   |   | 22 |  |
| Tunic, Mesothelioma Benign         |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 1  |  |
| <b>Hematopoietic System</b>        |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   |    |  |
| Bone Marrow                        | +              | + |   | + | + | + |   | + | + |   | + | + | + | + | + | +  |  |
| Leukemia Mononuclear               |                |   |   | X |   |   |   |   |   |   |   |   |   | X | X | 21 |  |
| Lymph Node                         | +              | + |   | + | M | M |   | M | + |   | M | + | M | M | + | +  |  |
| Bronchial, Leukemia Mononuclear    |                |   |   | X |   |   |   |   |   |   |   |   |   |   |   | 10 |  |
| Lymph Node, Mandibular             | M              | + |   | M | M | M |   | M | + |   | M | + | + | + | M | +  |  |
| Leukemia Mononuclear               |                |   |   |   |   |   |   |   |   |   |   |   |   |   |   | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

**P04: NEOPLASMS BY INDIVIDUAL ANIMAL**

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:20

First Dose M/F: NA / NA

Lab: NORTHROP

| F 344/N Rat Male<br>10 MG/M3ASBESTOS | DAY ON TEST           |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | *TOTALS |
|--------------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---------|
|                                      | 0<br>6<br>4<br>9      | 0<br>7<br>3<br>0      | 0<br>0<br>9<br>0      | 0<br>6<br>7<br>4      | 0<br>3<br>7<br>4      | 0<br>3<br>7<br>4      | 0<br>0<br>9<br>4      | 0<br>3<br>7<br>4      | 0<br>7<br>1<br>4      | 0<br>7<br>1<br>4      | 0<br>3<br>7<br>5      | 0<br>6<br>3<br>8      | 0<br>7<br>2<br>9      | 0<br>7<br>9<br>4      | 0<br>0<br>2<br>1      | 0<br>3<br>9<br>7      |         |
| ANIMAL ID                            | 0<br>0<br>4<br>6<br>5 | 0<br>0<br>4<br>6<br>6 | 0<br>0<br>4<br>6<br>7 | 0<br>0<br>4<br>6<br>8 | 0<br>0<br>4<br>6<br>9 | 0<br>0<br>4<br>7<br>0 | 0<br>0<br>4<br>7<br>1 | 0<br>0<br>4<br>7<br>2 | 0<br>0<br>4<br>7<br>3 | 0<br>0<br>4<br>7<br>4 | 0<br>0<br>4<br>7<br>5 | 0<br>0<br>4<br>7<br>6 | 0<br>0<br>4<br>7<br>7 | 0<br>0<br>4<br>7<br>8 | 0<br>4<br>1<br>5<br>1 | 0<br>4<br>1<br>5<br>2 |         |
| Lymph Node, Mesenteric               | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | 43                    |         |
| Leukemia Mononuclear                 |                       |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       | 12                    |         |
| Spleen                               | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | 65                    |         |
| Leukemia Mononuclear                 |                       |                       | X                     | X                     |                       |                       |                       |                       |                       |                       |                       | X                     | X                     | X                     |                       | 30                    |         |
| Osteosarcoma, Metastatic, Bone       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1                     |         |
| Thymus                               | +                     | +                     |                       | +                     | M                     | M                     |                       | M                     | M                     |                       | M                     | +                     | M                     | +                     | +                     | 35                    |         |
| <b>Integumentary System</b>          |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |
| Mammary Gland                        | M                     | M                     |                       | M                     | +                     | M                     |                       | +                     | M                     |                       | M                     | +                     | M                     | +                     | M                     | M                     | 22      |
| Fibrosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |
| Skin                                 | +                     | +                     |                       | +                     | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | 59      |
| Dermis, Adenoma                      |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |
| Fibroma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |
| Fibrosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3       |
| Keratoacanthoma                      |                       |                       | X                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 3       |
| Sarcoma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | X                     |                       |                       | 1       |
| <b>Musculoskeletal System</b>        |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |         |
| Bone                                 | +                     | +                     |                       | +                     | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | 64      |
| Osteoma                              |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |
| Osteosarcoma                         |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 1       |
| Skeletal Muscle                      | +                     | +                     |                       | +                     | +                     | +                     |                       | +                     | +                     |                       | +                     | +                     | +                     | +                     | +                     | +                     | 56      |
| Rhabdomyosarcoma                     |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       |                       | 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

Experiment Number: 05083-01

Test Type: CHRONIC

Route: RESPIRATORY EXPOSURE WHOLE BODY

Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Test Compound: Wollastonite calcium silicates

CAS Number: 13983-17-0

Date Report Requested: 10/23/2014

Time Report Requested: 12:33:21

First Dose M/F: NA / NA

Lab: NORTHROP

| DAY ON TEST | F 344/N Rat Male<br>10 MG/M3ASBESTOS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   | *TOTALS |
|-------------|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
|             | 0                                    | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |         |
|             | 6                                    | 7 | 0 | 6 | 3 | 3 | 0 | 3 | 7 | 7 | 3 | 6 | 7 | 7 | 0 | 3 |         |
|             | 4                                    | 3 | 9 | 0 | 7 | 7 | 9 | 7 | 1 | 0 | 7 | 3 | 3 | 2 | 9 | 8 |         |
|             | 9                                    | 0 | 4 | 7 | 4 | 4 | 4 | 4 | 9 | 1 | 4 | 5 | 8 | 9 | 4 | 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 | 4 | 4 |         |
|             | 4                                    | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 |         |
|             | 6                                    | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 |         |
|             | 5                                    | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 |         |

Nervous System

|                      |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   |    |
|----------------------|---|---|--|---|---|---|--|---|---|--|---|---|---|---|---|---|----|
| Brain                | + | + |  | + | A | + |  | + | + |  | + | + | + | + | + | + | 63 |
| Fibrous Histiocytoma |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear |   |   |  |   |   |   |  |   |   |  |   |   |   |   | X |   | 1  |

Respiratory System

|                                          |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   |    |
|------------------------------------------|---|---|--|---|---|---|--|---|---|--|---|---|---|---|---|---|----|
| Larynx                                   | + | + |  | + | M | M |  | M | + |  | M | + | M | + | + | + | 53 |
| Lung                                     | + | + |  | + | M | M |  | M | + |  | M | + | M | + | + | + | 54 |
| Alveolar/Bronchiolar Adenoma             |   |   |  |   |   |   |  |   |   |  |   |   |   |   | X |   | 10 |
| Alveolar/Bronchiolar Adenoma, Multiple   |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Alveolar/Bronchiolar Carcinoma           | X | X |  |   |   |   |  |   |   |  |   |   |   |   | X |   | 9  |
| Alveolar/Bronchiolar Carcinoma, Multiple |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Bronchiole, Carcinoma                    |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Leukemia Mononuclear                     |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   | X | 4  |
| Osteosarcoma, Metastatic, Bone           |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Sarcoma, Metastatic, Skin                |   |   |  |   |   |   |  |   |   |  |   |   |   |   | X |   | 1  |
| Nose                                     | + | + |  | + | M | + |  | M | + |  | + | + | + | A | + | + | 58 |
| Trachea                                  | + | + |  | + | M | M |  | M | + |  | M | + | M | + | + | + | 53 |

Special Senses System

|                 |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   |    |
|-----------------|---|---|--|---|---|---|--|---|---|--|---|---|---|---|---|---|----|
| Eye             | + | + |  | + | + | + |  | + | M |  | + | + | + | + | + | + | 62 |
| Harderian Gland | + | + |  | M | M | + |  | M | M |  | + | + | M | + | + | + | 34 |
| Lacrimal Gland  | + | + |  | + | M | + |  | M | + |  | + | + | + | + | + | + | 61 |

\* ..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

Experiment Number: 05083-01

Test Type: CHRONIC

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Species/Strain: Rat/F 344/N

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

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CAS Number: 13983-17-0

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First Dose M/F: NA / NA

Lab: NORTHROP

|                                      |             |         |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|--------------------------------------|-------------|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F 344/N Rat Male<br>10 MG/M3ASBESTOS | DAY ON TEST | 0       | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|                                      |             | 6       | 7 | 0 | 6 | 3 | 3 | 0 | 3 | 7 | 7 | 3 | 6 | 7 | 7 | 0 | 3 |
|                                      |             | 4       | 3 | 9 | 0 | 7 | 7 | 9 | 7 | 1 | 0 | 7 | 3 | 3 | 2 | 9 | 8 |
|                                      |             | 9       | 0 | 4 | 7 | 4 | 4 | 4 | 4 | 9 | 1 | 4 | 5 | 8 | 9 | 4 | 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 | 4 | 4 | 4 |
|                                      |             | 4       | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 1 | 1 | 1 |
|                                      |             | 6       | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 5 |
|                                      |             | 5       | 6 | 7 | 8 | 9 | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 1 | 2 |
|                                      |             | *TOTALS |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |

Urinary System

|                      |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   |    |
|----------------------|---|---|--|---|---|---|--|---|---|--|---|---|---|---|---|---|----|
| Kidney               | + | + |  | + | + | + |  | + | + |  | + | + | + | + | + | + | 65 |
| Leukemia Mononuclear |   |   |  |   |   |   |  |   |   |  |   |   |   |   | X |   | 2  |
| Sarcoma              |   |   |  |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |
| Urinary Bladder      | + | + |  | + | + | + |  | + | + |  | + | + | + | + | + | + | 65 |

SYSTEMIC LESIONS

|                      |   |   |   |   |   |   |  |   |   |  |   |   |   |   |   |   |    |
|----------------------|---|---|---|---|---|---|--|---|---|--|---|---|---|---|---|---|----|
| Multiple Organ       | + | + |   | + | + | + |  | + | + |  | + | + | + | + | + | + | 67 |
| Leukemia Mononuclear |   |   | X |   | X |   |  |   |   |  |   |   |   | X | X | X | 33 |
| Mesothelioma Benign  |   |   |   |   |   |   |  |   |   |  |   |   |   |   |   |   | 1  |

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

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I ..Insufficient tissue

M ..Missing tissue  
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**\*\* END OF REPORT \*\***

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