

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:19
First Dose M/F: NA / NA
Lab: NCTR

C Number:	MG96006
Lock Date:	Not Entered.
Cage Range:	All
Date Range:	All
Reasons For Removal:	All
Removal Date Range:	All
Treatment Groups:	All
Study Gender:	Both
PWG Approval Date	NONE

CD Rat Male
F1 0PPB

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male F1 0PPB	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	
		3	4	4	4	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		8	1	4	7	2	5	9	1	3	4	8	0	0	3	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	3	3	8	6	6	2	9	1	7	8	2	4	0	1	4	4	6	6	6	5	7	7	7	7	7	8	8	8	8	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	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5
	3	4	4	5	7	9	3	5	7	0	7	9	0	5	8	8	2	2	2	5	8	8	2	2	3	3	7	7	7	7	7	7	7
	1	1	4	4	6	4	2	9	3	0	4	0	3	6	1	7	4	5	6	4	0	1	8	9	0	1	3	4	5	6	7	7	7

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation			4																									
Inflammation, Suppurative			2																									
Intestine Large, Cecum	A	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Lymphoid																					3							
Intestine Large, Rectum	A	A	+	A	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	A	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	A	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	A	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+
Liver	+	+	+	+	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																					3							
Basophilic Focus																												
Bile Duct, Hyperplasia															2													
Biliar Tract, Fibrosis															2						1				1			
Clear Cell Focus																			X									
Degeneration, Cystic															1								1					
Eosinophilic Focus																							X					
Hematopoietic Cell Proliferation															2													
Hepatodiaphragmatic Nodule										X						X										X		X
Inflammation, Chronic Active										2	1								1			1	1		1		1	1

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:20

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male F1 0PPB	DAY ON TEST	0 3 8 3	0 4 1 3	0 4 4 3	0 4 7 8	0 5 2 6	0 5 5 6	0 5 9 2	0 6 1 9	0 6 3 1	0 6 4 7	0 6 8 2	0 7 0 4	0 7 3 0	0 7 4 6	0 7 4 6	0 7 5 6	0 7 5 6	0 7 5 6	0 7 5 6	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 8	0 7 5 8	0 7 5 8	0 7 5 8	0 7 5 8	0 7 5 8				
	ANIMAL ID	0 0 0 3 1	0 0 0 4 1	0 0 0 4 4	0 0 0 5 4	0 0 0 6 6	0 0 0 7 4	0 0 0 8 2	0 0 0 9 9	0 0 0 1 3	0 0 0 2 5	0 0 0 3 7	0 0 0 4 0	0 0 0 5 9	0 0 0 6 4	0 0 0 7 3	0 0 0 8 6	0 0 0 9 5	0 0 0 10 4	0 0 0 11 3	0 0 0 12 2	0 0 0 13 1	0 0 0 14 0	0 0 0 15 9	0 0 0 16 8	0 0 0 17 7	0 0 0 18 6	0 0 0 19 5	0 0 0 20 4	0 0 0 21 3	0 0 0 22 2	0 0 0 23 1	0 0 0 24 0	0 0 0 25 9	0 0 0 26 8			
	Left Lat Lobe, Developmental Malformation																																					
	Vacuolization Cytoplasmic																																					
Mesentery																																						
Oral Mucosa																																						
Pancreas	A	A	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration					1					1	2	2		2	1	2		3	3	2	3		2	2	2	3	2	2	2	2	3	4	3					
Salivary Glands	A	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Stomach, Forestomach	+	A	+	A	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema																																						
Epithelium, Hyperplasia																																						
Keratin Cyst					X																																	
Stomach, Glandular	A	A	+	A	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiovascular System																																						
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy		3	2	2	1	2			1	2			2	2		3	2	1		2	1	3	1	1	2	1			1	1	2	1	3	1				
Metaplasia, Osseous																																						
Endocrine System																																						
Adrenal Cortex	+	A	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Accessory Adrenal Cortical Nodule					X																																	
Angiectasis																																						
Degeneration, Cystic																																						

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:20
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 0PPB	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				
		3	4	4	4	5	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
		8	1	4	7	2	5	9	1	3	4	8	0	0	3	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5				
		3	3	3	8	6	6	2	9	1	7	8	2	4	0	1	4	6	6	6	5	7	7	7	7	7	7	8	8	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	0	0	0	0	0	0	0	0	0	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	2	2	2	3	3	3	3	4	4	4	4	4	5	5	5	5	5	5	5	5	5				
	3	4	4	5	7	9	3	5	7	0	7	9	0	5	8	8	2	2	2	5	8	8	2	2	3	3	7	7	7	7				
	1	1	4	4	6	4	2	9	3	0	4	0	3	6	1	7	4	5	6	4	0	1	8	9	0	1	3	4	5	6				
Hyperplasia	1										2										2		1											
Hypertrophy																																		
Vacuolization Cytoplasmic																							1		1		1		1		2		1	
Adrenal Medulla	+	A	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+				
Bilateral, Hyperplasia																																		
Hyperplasia											1										1		1											
Islets, Pancreatic	A	A	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Hyperplasia											1										2													
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Hyperplasia											3										2													
Pituitary Gland	+	A	+	+	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
Pars Distalis, Cyst											X												X											
Pars Distalis, Hyperplasia																					1													
Thyroid Gland	A	+	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				
C Cell, Hyperplasia																							1											
Cyst, Squamous											X		X		X																			
General Body System																																		
Tissue NOS																																		
Degeneration, Cystic																																		
Infiltration Cellular, Plasma Cell																																		
Genital System																																		
Coagulating Gland																																		
	A	A	+	+	A	+	+	+	+	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:21

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 0PPB

CD Rat Male F1 0PPB	DAY ON TEST	0 3 8 3 1	0 4 1 3 1	0 4 4 3 4	0 4 7 8 4	0 5 2 6 6	0 5 5 6 4	0 5 9 2 2	0 6 1 9 3	0 6 3 7 0	0 6 4 1 4	0 6 8 2 0	0 7 0 4 3	0 7 3 7 6	0 7 4 1 7	0 7 4 4 4	0 7 5 5 5	0 7 5 5 6	0 7 5 5 6	0 7 5 5 6	0 7 5 5 5	0 7 5 5 7	0 7 5 5 7	0 7 5 5 7	0 7 5 5 7	0 7 5 5 8	0 7 5 5 8	0 7 5 5 8	0 7 5 5 8	0 7 5 5 8	0 7 5 5 8		
	ANIMAL ID	0 0 0 3 1	0 0 0 4 1	0 0 0 4 4	0 0 0 5 4	0 0 0 6 6	0 0 0 7 4	0 0 0 8 2	0 0 0 9 9	0 0 0 1 5	0 0 0 1 7	0 0 0 2 0	0 0 0 3 4	0 0 0 3 7	0 0 0 3 6	0 0 0 4 1	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 6	0 0 0 4 5	0 0 0 4 4	0 0 0 4 4	0 0 0 5 2	0 0 0 5 2	0 0 0 5 3	0 0 0 5 3	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7		
		0 0 0 3 1	0 0 0 4 1	0 0 0 4 4	0 0 0 5 4	0 0 0 6 6	0 0 0 7 4	0 0 0 8 2	0 0 0 9 9	0 0 0 1 5	0 0 0 1 7	0 0 0 2 0	0 0 0 3 4	0 0 0 3 7	0 0 0 3 6	0 0 0 4 1	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 6	0 0 0 4 5	0 0 0 4 4	0 0 0 4 4	0 0 0 5 2	0 0 0 5 2	0 0 0 5 3	0 0 0 5 3	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7		
		0 0 0 3 1	0 0 0 4 1	0 0 0 4 4	0 0 0 5 4	0 0 0 6 6	0 0 0 7 4	0 0 0 8 2	0 0 0 9 9	0 0 0 1 5	0 0 0 1 7	0 0 0 2 0	0 0 0 3 4	0 0 0 3 7	0 0 0 3 6	0 0 0 4 1	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 6	0 0 0 4 5	0 0 0 4 4	0 0 0 4 4	0 0 0 5 2	0 0 0 5 2	0 0 0 5 3	0 0 0 5 3	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7		
		0 0 0 3 1	0 0 0 4 1	0 0 0 4 4	0 0 0 5 4	0 0 0 6 6	0 0 0 7 4	0 0 0 8 2	0 0 0 9 9	0 0 0 1 5	0 0 0 1 7	0 0 0 2 0	0 0 0 3 4	0 0 0 3 7	0 0 0 3 6	0 0 0 4 1	0 0 0 4 4	0 0 0 4 5	0 0 0 4 6	0 0 0 4 6	0 0 0 4 5	0 0 0 4 4	0 0 0 4 4	0 0 0 5 2	0 0 0 5 2	0 0 0 5 3	0 0 0 5 3	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7	0 0 0 5 7		
Developmental Malformation			X		X										X				X					X		X		X	X				
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																				3							3						
Hypospermia																			4							4							
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Abscess																																	
Duct, Dilatation			3		2				1		3		3		3			2		3					3								
Infiltration Cellular, Lymphocyte					2				2																					2	2		
Inflammation, Chronic Active																				1													
Inflammation, Suppurative			1		2	3			1	4		4		4		2		4		4		2	3		2			2					
Prostate, Dorsal/Lateral Lobe	+	A		+	A			+		+	+			+	+		+	+				+			+		+		+			+	
Cyst																																	
Inflammation, Chronic Active																							1										
Inflammation, Suppurative	1		1			1	2		1				1	1		2		1		2	2	1			2	2		1		2			
Prostate, Ventral Lobe	+	+	+	+	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia															1			3												1			
Infiltration Cellular, Lymphocyte																				1													
Inflammation, Chronic Active																						1											
Inflammation, Suppurative													1												2								
Rete Testes	+	A	+	+	A	+	+	+	+	+	A	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Dilatation																																	
Fibrosis																				1													
Seminal Vesicle	A	A	+	A	A	+	+	+	+	+	A	A	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:21
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 0PPB	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										
		3	4	4	4	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7										
		8	1	4	7	2	5	9	1	3	4	8	0	0	3	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5										
		3	3	3	8	6	6	2	9	1	7	8	2	4	0	1	4	6	6	6	5	7	7	7	7	7	7	7	8	8	8	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	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5										
	3	4	4	5	7	9	3	5	7	0	7	9	0	5	8	8	2	2	2	5	8	8	2	2	3	3	7	7	7	7	7	7										
	1	1	4	4	6	4	2	9	3	0	4	0	3	6	1	7	4	5	6	4	0	1	8	9	0	1	3	4	5	6	7	7										
Atrophy	2																2						1				2															
Lumen, Dilatation																	4																									
Testes	+	A	+	+	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+											
Seminif Tub, Degeneration	4																2		1				1		4		1		1		1		1									
Hematopoietic System																																										
Bone Marrow	A	A	+	+	A	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+											
Hypocellularity																	3																									
Myeloid Cell, Hyperplasia																	2		1				2																			
Lymph Node	+																				+		+						+		+				+							
Axillary, Hyperplasia, Lymphoid																																										
Degeneration, Cystic																	4																									
Inguinal, Degeneration, Cystic																					3																					
Inguinal, Hyperplasia, Lymphoid																																										
Inguinal, Infiltration Cellular, Plasma Cell																																										
Lumbar, Degeneration, Cystic																									4				4				4				2					
Lumbar, Hyperplasia, Lymphoid																																										
Lumbar, Infiltration Cellular, Plasma Cell																													4				2									
Mediastinal, Infiltration Cellular, Plasma Cell																																										
Renal, Degeneration, Cystic																																										
Lymph Node, Mandibular	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+											
Degeneration, Cystic																	2				4																					
Hyperplasia, Lymphoid	2																2								2				2		2				2		2		3		2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1 0PPB

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1 0PPB

DAY ON TEST

ANIMAL ID

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

Mediastinum, Inflammation, Suppurative

Mediastinum, Necrosis

Metaplasia, Osseous

Nose

Inflammation, Chronic Active

Inflammation, Suppurative

Mucosa, Hyperkeratosis

Trachea

Special Senses System

Eye

Bilateral, Cataract

Cataract

Hemorrhage

Inflammation, Suppurative

Harderian Gland

Infiltration Cellular, Lymphocyte

Zymbal's Gland

Urinary System

Kidney

Cyst

Medulla, Cyst

Nephropathy

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:22
First Dose M/F: NA / NA
Lab: NCTR

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

4

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:22
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 0PPB

CD Rat Male F1 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
		8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	
	7	2	3	3	7	7	7	2	2	2	2	2	2	7	7	7	7	7	7	7	
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9	
*TOTALS																					
Alimentary System																					
Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51	
Dilatation																				1 4.0	
Inflammation, Suppurative																				1 2.0	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Hyperplasia, Lymphoid																				1 3.0	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Angiectasis																	2	2		3 2.3	
Basophilic Focus						X														1	
Bile Duct, Hyperplasia																		1		2 1.5	
Biliar Tract, Fibrosis				1																4 1.3	
Clear Cell Focus																				1	
Degeneration, Cystic																			1 1	4 1.0	
Eosinophilic Focus				X									X							3	
Hematopoietic Cell Proliferation							1													2 1.5	
Hepatodiaphragmatic Nodule										X	X									6	
Inflammation, Chronic Active			1	1	1															1 13 1.1	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:23
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 0PPB

CD Rat Male F1 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2		
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7			
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7			
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9		
	*TOTALS																					
Left Lat Lobe, Developmental Malformation	X																				1	
Vacuolization Cytoplasmic	2																		1	12	1.4	
Mesentery																					1	
Oral Mucosa	+																				3	
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46		
Acinar Cell, Degeneration	3	4	2	3	2	1	3	1	1		2	1	3		4	4	3	2	2	40	2.3	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
Edema																					1	4.0
Epithelium, Hyperplasia	2																				2	2.5
Keratin Cyst																					1	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Cardiovascular System																						
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51		
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51		
Cardiomyopathy	2	3	1	1	1	2	1	1	2	1	1	3	2	1				1	1	42	1.6	
Metaplasia, Osseous																					1	2.0
Endocrine System																						
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47		
Accessory Adrenal Cortical Nodule	X																				3	
Angiectasis	1																				1	1.0
Degeneration, Cystic	2																		1	2	4	1.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:23
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 0PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7	7
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9
	*TOTALS																			
Hyperplasia	1 1 1																			
Hypertrophy	2 2 1																			
Vacuolization Cytoplasmic	1 2 1 1																			
Adrenal Medulla	+ + + + + + + + + + + + + + + + + +																			
Bilateral, Hyperplasia	1																			
Hyperplasia	1 1 1 3																			
Islets, Pancreatic	+ + + + + + + + + + + + + + + + + +																			
Hyperplasia	1 1 1 1																			
Parathyroid Gland	+ + + + + + + + + + M + + + + + + + +																			
Hyperplasia	2 2																			
Pituitary Gland	+ + + + + + + + + + + + + + + + + +																			
Pars Distalis, Cyst																				
Pars Distalis, Hyperplasia	1 1 1 1 2 2																			
Thyroid Gland	+ + + + + + + + + + + + + + + + + +																			
C Cell, Hyperplasia	1 2 1 1 1																			
Cyst, Squamous	X X																			
General Body System																				
Tissue NOS																				
Degeneration, Cystic																				
Infiltration Cellular, Plasma Cell																				
Genital System																				
Coagulating Gland	+ + + + + + + + + + + + + + + + + +																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:23

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 0PPB

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 0PPB**

CD Rat Male F1 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
		8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2			
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7	7	7			
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9				
																					*TOTALS			
Atrophy																					4	1.8		
Lumen, Dilatation																					2	4.0		
Testes		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48			
Seminif Tub, Degeneration		4			1														2		1.8			
Hematopoietic System																								
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46			
Hypocellularity																					1	3.0		
Myeloid Cell, Hyperplasia		2					1													6	1.7			
Lymph Node		+	+	+	+								+	+						14				
Axillary, Hyperplasia, Lymphoid		4																				1	4.0	
Degeneration, Cystic																					1	4.0		
Inguinal, Degeneration, Cystic																					1	3.0		
Inguinal, Hyperplasia, Lymphoid		3																				1	3.0	
Inguinal, Infiltration Cellular, Plasma Cell		3																				1	3.0	
Lumbar, Degeneration, Cystic		4					3		4										3	8	3.5			
Lumbar, Hyperplasia, Lymphoid		3	4	4																3	3.7			
Lumbar, Infiltration Cellular, Plasma Cell		3	4	4	4														4	7	3.6			
Mediastinal, Infiltration Cellular, Plasma Cell																	3						1	3.0
Renal, Degeneration, Cystic												3											1	3.0
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Degeneration, Cystic		3								2							1		1			10	1.9	
Hyperplasia, Lymphoid		2			2		2	2	2	2	1	2	2	3	2	2					2	2	27	2.1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:24
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 0PPB	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
ANIMAL ID	8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7	7
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9
	*TOTALS																			
Infiltration Cellular, Plasma Cell	3	2	4	2	3	2	2	3	2		2		3	2		1		2		
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Degeneration, Cystic																3				
Hyperplasia, Lymphoid				2																
Inflammation, Granulomatous						2									2					
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Depletion Lymphoid																				
Hematopoietic Cell Proliferation	1	3	2	2		1			1	2		2	2	2	2	1		1	1	
Hyperplasia, Lymphoid										2		2					1			
Infiltration Cellular, Polymorphnuclr																				
Pigmentation	1				1		1	2		2			1		2	2		3		
Thymus	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	
Atrophy	4		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4		
Cyst							X													
Epithel Cell, Hyperplasia																1				
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinus, Degeneration	3		4	1		1		4	3	1		1	3	3	3			2	1	
Alveolus, Hyperplasia							1													
Ectasia																				
Lactation																				
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:25
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	1	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7	7	7	7
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	3	4	5	6	7	8	9	9
	*TOTALS																					
Mediastinum, Inflammation, Suppurative																						1 4.0
Mediastinum, Necrosis																						1 4.0
Metaplasia, Osseous																						1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Inflammation, Chronic Active																						3 2.0
Inflammation, Suppurative																2						4 1.5
Mucosa, Hyperkeratosis												3										2 3.0
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Special Senses System																						
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Bilateral, Cataract																						2
Cataract																						1
Hemorrhage																						1 4.0
Inflammation, Suppurative																						1 4.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Infiltration Cellular, Lymphocyte						1					1											3 1.0
Zymbal's Gland																						1
Urinary System																						
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Cyst		X		X	X	X	X					X	X	X	X							20
Medulla, Cyst																						1
Nephropathy	2	2		3	3	2	2	1	1	2	1	2	2	2	2	1	1	2	1	3		42 1.8

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:25
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	7	2	3	3	7	7	7	2	2	2	2	2	7	7	7	7	7	7	7	7	7
	8	9	0	1	5	6	7	5	6	7	8	9	2	3	4	5	6	7	8	9	9
	*TOTALS																				
Transit Epithe, Hyperplasia	2					2														3	2.7
Urethra																			+	2	
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Dilatation																				1	4.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:25
First Dose M/F: NA / NA
Lab: NCTR

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

Page 20

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:26

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST

ANIMAL ID

[illegible]

Mesentery

Fat, Necrosis

Oral Mucosa

Keratin Cyst

Pancreas

Acinar Cell, Degeneration

Salivary Glands

Stomach, Forestomach

Edema

Necrosis

Stomach, Glandular

Cyst

Cardiovascular System

Blood Vessel

Heart

Atrium, Dilatation

Cardiomyopathy

Endocrine System

Adrenal Cortex

Accessory Adrenal Cortical Nodule

Angiectasis

Hyperplasia

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:26
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F1 2PPB	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	1	1	3	4	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	9	8	9	5	9	9	9	0	1	3	3	5	8	9	0	1	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	6
	6	8	6	2	4	8	7	6	0	7	8	9	0	8	6	4	6	7	3	6	6	6	7	7	7	7	7	7	7	7	7	8	8	1	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5	6		
	0	0	3	5	9	3	3	4	4	5	8	8	0	6	8	0	2	6	8	2	2	8	8	8	8	8	3	3	7	8	3	3	0		
	4	5	3	7	0	8	9	0	1	8	3	4	4	3	6	4	4	0	6	7	8	9	2	3	4	5	2	3	9	0	2	2	2		
	Hypertrophy							2						1																					
	Metaplasia, Osseous							4																											
	Vacuolization Cytoplasmic							2						1						4							1								
	Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	Angiectasis																																		
	Hyperplasia																			1							1								
	Islets, Pancreatic	A	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
	Hyperplasia							1							1	1		1			1	1	1	1					1		1				
	Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	M	+	I	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	Hyperplasia																			1										2		2			
	Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	Pars Distalis, Cyst																																		
	Pars Distalis, Hyperplasia										2										2					2		1							
	Pars Intermed, Cyst																																		
	Pars Intermed, Hyperplasia																				2														
	Thyroid Gland	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	C Cell, Hyperplasia														1										1									1	
	General Body System																																		
	NONE																																		
	Genital System																																		
	Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
	Atrophy							2																											
																3																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1 2PPB

[illegible]

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST

ANIMAL ID

[illegible]

Inflammation, Chronic Active

Inflammation, Suppurative

Rete Testes + + + + + + + + + + + M + + + M + + + + + M M + + + + M + +

[illegible]

Atrophy	2	2	2	2
---------	---	---	---	---

Epithelium, Hyperplasia	4
-------------------------	---

Inflammation, Suppurative

Lumen, Dilatation

Testes +

Malformation

Seminif Tub, Degeneration

Hematopoietic System

[illegible]

Erythroid Cell, Hyperplasia	2
-----------------------------	---

Myeloid Cell, Hyperplasia	1	2	2	4	4	2	2
---------------------------	---	---	---	---	---	---	---

Lymph Node	+	+	+	+	+	+	+
------------	---	---	---	---	---	---	---

Axillary, Hyperplasia, Lymphoid

Degeneration, Cystic

Lumbar, Degeneration, Cystic	4	4
------------------------------	---	---

Lumbar, Hyperplasia, Lymphoid

Lumbar, Infiltration Cellular, Plasma Cell

Mediastinal, Infiltration Cellular, Plasma Cell

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST

ANIMAL ID

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

Renal, Infiltration Cellular, Plasma Cell

Infiltration Cellular, Plasma Cell

Inflammation, Granulomatous

Pigmentation

Epithel Cell, Hyperplasia

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:28

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST

ANIMAL ID

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

Integumentary System

Mammary Gland	+	+	+	M	+	+	+	M	+	M	M	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration		1					3								1	3		2		2					2			3	1
Alveolus, Hyperplasia																							3						
Atypical Focus																								X					
Ectasia																											2		
Lactation									1				1				1				2						2		2
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst Epithelial Inclusion																										X			
Epidermis, Necrosis																	2												
Hyperkeratosis																													
Inflammation, Chronic Active				4												4	2		3			4		4		4			

Musculoskeletal System

[illegible]

Nervous System

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:28
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1 2PPB

	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
	1	1	3	4	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	9	8	9	5	9	9	9	0	1	3	3	5	8	9	0	1	3	4	5	5	5	5	5	5	5	5	6
	6	8	6	2	4	8	7	6	0	7	8	9	0	8	6	4	6	7	3	6	6	6	7	7	7	7	8	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	6
	0	0	3	5	9	3	4	4	5	8	8	0	6	8	0	2	6	8	2	2	8	8	8	8	3	3	7	3
	4	5	3	7	0	8	9	0	1	8	3	4	4	3	6	4	4	0	6	7	8	8	3	4	5	2	0	2
Cyst					X			X						X					X		X	X			X	X	X	X
Nephropathy				1	2		1	1		1		1		2	2	4	1		1	2	1	1	1	1	1	1	2	3
Pelvis, Inflammation, Suppurative							2																					
Transit Epithe, Hyperplasia							2																					
Urethra							+																					
Urinary Bladder	A	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:28
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	2	1	2	2	1	3	2	3	2	2	2	3	2	2	2	2	3	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8
	3	4	8	9	0	0	1	2	3	4	5	6	0	1	2	3	4	5	6
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis								1											5 1.8
Basophilic Focus													X						3
Bile Duct, Hyperplasia			1				1	1				1					1		9 1.0
Biliar Tract, Fibrosis																			2 1.0
Degeneration, Cystic															1				3 1.0
Eosinophilic Focus	X				X			X					X						5
Hematopoietic Cell Proliferation																			1 2.0
Hepatodiaphragmatic Nodule																			1
Infiltration Cellular, Lymphocyte																	1		3 1.3
Inflammation, Chronic Active				1				1											5 1.2
Necrosis																			1 2.0
Oval Cell, Hyperplasia																			1 2.0
Vacuolization Cytoplasmic															2				4 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:29
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 2PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	3	7	7	8	3	3	3	3	3	3	3	3	8	8	8	8	8	8	8
	3	4	8	9	0	0	1	2	3	4	5	6	8	1	2	3	4	5	6	
	*TOTALS																			
Mesentery	+																			
Fat, Necrosis	4																			
Oral Mucosa	2																			
Keratin Cyst	1																			
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinar Cell, Degeneration		2	3	2	2	3	2	2	2	3	4	2	2	1	2	1	2	2	4	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Edema	3																			
Necrosis	2																			
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst	X																			
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrium, Dilatation	3																			
Cardiomyopathy	2	2				1	1	3	2	1	1	1	1	1	2	1		2		
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accessory Adrenal Cortical Nodule	X																			
Angiectasis	2																			
Hyperplasia	2										4							3		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:29
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 2PPB**

CD Rat Male F1 2PPB		DAY ON TEST																				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1		
ANIMAL ID		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8		
		3	4	8	9	0	0	1	2	3	4	5	6	0	1	2	3	4	5	6		
		*TOTALS																				
Hypertrophy		1																			3	1.3
Metaplasia, Osseous																					1	4.0
Vacuolization Cytoplasmic		2		1						2				3			2			9	2.0	
Adrenal Medulla		+	+	+	M	+	+	+	+	+	+	M	+	+	+	+	+	+	+	48		
Angiectasis		4																			1	4.0
Hyperplasia		1		2																4	1.3	
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Hyperplasia						2			2										1	13	1.2	
Parathyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46		
Hyperplasia						2			2											5	1.8	
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Pars Distalis, Cyst																					1	
Pars Distalis, Hyperplasia																					6	2.3
Pars Intermed, Cyst																					1	
Pars Intermed, Hyperplasia																					1	2.0
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
C Cell, Hyperplasia		1																			4	1.0
General Body System																						
NONE																						
Genital System																						
Coagulating Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Atrophy																					2	2.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:29
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 2PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	2	1	2	2	1	3	2	3	2	2	2	3	2	2	2	2	2	3	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8	8
	3	4	8	9	0	1	2	3	3	4	5	6	0	1	2	3	4	5	6	
	*TOTALS																			
Developmental Malformation	X																			
Lumen, Dilatation	X																			
Epididymis	3																			
Atrophy	+																			
Granuloma Sperm	4																			
Hypospermia	4																			
Penis	1																			
Preputial Gland	+																			
Abscess	1																			
Atrophy	2																			
Duct, Dilatation	2																			
Infiltration Cellular, Lymphocyte	2																			
Inflammation, Suppurative	3																			
Prostate, Dorsal/Lateral Lobe	+																			
Atrophy	1																			
Cyst	1																			
Inflammation, Chronic Active	2																			
Inflammation, Suppurative	1																			
Prostate, Ventral Lobe	+																			
Atrophy	1																			
Degeneration	1																			
Hyperplasia	1																			
Infiltration Cellular, Lymphocyte	2																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:30
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 2PPB**

CD Rat Male F1 2PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1		
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8	8		
	3	4	8	9	0	0	1	2	3	4	5	6	0	1	2	3	4	5	6			
	*TOTALS																					
Inflammation, Chronic Active																					2	2.0
Inflammation, Suppurative																					3	2.3
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	44		
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46		
Atrophy																					4	2.0
Epithelium, Hyperplasia																					1	4.0
Inflammation, Suppurative																					1	1.0
Lumen, Dilatation	4	2	3																		5	2.8
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Malformation																					1	
Seminif Tub, Degeneration																					19	1.7
Hematopoietic System																						
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Erythroid Cell, Hyperplasia																					1	2.0
Myeloid Cell, Hyperplasia																					7	2.4
Lymph Node		+	+				+		+	+				+	+				+	16		
Axillary, Hyperplasia, Lymphoid																					1	2.0
Degeneration, Cystic																					2	3.5
Lumbar, Degeneration, Cystic		4	4				3		3	3				2	2				3	4	11	3.3
Lumbar, Hyperplasia, Lymphoid																					2	2.5
Lumbar, Infiltration Cellular, Plasma Cell																					5	2.6
Mediastinal, Infiltration Cellular, Plasma Cell																					1	2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:30
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 2PPB

CD Rat Male F1 2PPB	DAY ON TEST																				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
		2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8		
	3	4	8	9	0	0	1	2	3	4	5	6	0	1	2	3	4	5	6		
*TOTALS																					
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Acinus, Degeneration				4					3	2	4	1			3	4	2	4	1	19	2.4
Alveolus, Hyperplasia			2					1						1						4	1.8
Atypical Focus																				1	
Ectasia	3	3																		3	2.7
Lactation	3	3			2															9	1.9
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Cyst Epithelial Inclusion																				1	
Epidermis, Necrosis																				1	2.0
Hyperkeratosis						3														1	3.0
Inflammation, Chronic Active			4			4		4	4		4		4			4				14	3.8
Musculoskeletal System																					
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Skeletal Muscle																				1	
Nervous System																					
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Compression			2			1			1											7	2.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hydrocephalus																				3	1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:31
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 2PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8
	3	4	8	9	0	0	1	2	3	4	5	6	0	1	2	3	4	5	6
	*TOTALS																		
Peripheral Nerve																			
Spinal Cord																			
Respiratory System																			
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolar Epith, Hyperplasia																			
Congestion																			
Infiltration Cellular, Histiocyte																			
Inflammation, Chronic Active																			
Metaplasia, Osseous																			
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Exudate																			
Inflammation, Suppurative																			
Metaplasia, Squamous																			
Polyp, Inflammatory																			
Vomeronas Org, Dilatation																			
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Special Senses System																			
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Urinary System																			
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:31
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 2PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	2	1	2	2	1	3	2	3	2	2	2	2	3	2	2	2	2	3	1	
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	3	7	7	8	3	3	3	3	3	3	3	8	8	8	8	8	8	8	8
	3	4	8	9	0	1	2	3	4	5	6	0	1	2	3	4	5	6		
	*TOTALS																			
Cyst	X				X				X			X		X			X			18
Nephropathy	4		1	1	1	2	1	2	2	1	1	1	1	1	2	1	2	1	1	41 1.5
Pelvis, Inflammation, Suppurative			2																	2 2.0
Transit Epithe, Hyperplasia			2																	2 2.0
Urethra														+						2
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:31

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

[illegible]

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperkeratosis			2					2						2												
Intestine Large, Cecum	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Lymphoid																1										
Inflammation, Chronic Active																2										
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	A	+	+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	A	+	A	+	+	+	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																										
Basophilic Focus						X													X							
Bile Duct, Hyperplasia									1		1		1		1								1			
Biliar Tract, Fibrosis																										
Cyst Multilocular																				X						
Degeneration, Cystic		1																								1
Eosinophilic Focus									X										X		X					
Focal Cellular Change																										
Hematopoietic Cell Proliferation																						1				
Hepatodiaphragmatic Nodule			X														X	X							X	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

1 ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1 10PPB

CAS Number: 57-63-6

Lab: NCTR

Page 39

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:32
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:33

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

[illegible]

Prostate, Ventral Lobe

Atrophy

Hyperplasia

Infiltration Cellular, Lymphocyte

Inflammation, Chronic Active

Inflammation, Suppurative

Rete Testes

Dilatation

Fibrosis

Seminal Vesicle

Atrophy

Lumen, Dilatation

Testes

Interstit Cell, Hyperplasia

Seminif Tub, Degeneration

Hematopoietic System

Bone Marrow

Erythroid Cell, Hyperplasia

Hypocellularity

Myeloid Cell, Hyperplasia

Lymph Node

Axillary, Hyperplasia, Lymphoid

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

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

Axillary, Infiltration Cellular, Plasma Cell

Lumbar, Degeneration, Cystic

Lumbar, Hyperplasia, Lymphoid

Lumbar, Infiltration Cellular, Plasma Cell

Mediastinal, Infiltration Cellular, Plasma Cell

Pancreatic, Degeneration, Cystic

Renal, Degeneration, Cystic

Thoracic, Degeneration, Cystic

Lymph Node, Mandibular

Degeneration, Cystic

Hyperplasia, Lymphoid

Infiltration Cellular, Plasma Cell

Lymph Node, Mesenteric

Degeneration, Cystic

Hyperplasia, Lymphoid

Infiltration Cellular, Plasma Cell

Inflammation, Granulomatous

Spleen

Capsule, Cyst

Depletion Lymphoid

Hematopoietic Cell Proliferation

Hyperplasia, Lymphoid

Hyperplasia, Stromal

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

[illegible]

Pigmentation

Red Pulp, Hyperplasia

Thymus

Atrophy

Cyst

Epithel Cell, Hyperplasia

Integumentary System

Mammary Gland

Acinus, Degeneration

Alveolus, Hyperplasia

Duct, Dilatation

Duct, Ectasia

Duct, Hyperplasia

Duct, Inflammation, Chronic Active

Ectasia

Lactation

Skin

Abscess

Cyst Epithelial Inclusion

Fibrosis

Foreign Body

Inflammation, Chronic Active

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:34

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

[illegible]

Musculoskeletal System

Bone, Femur

Skeletal Muscle

Nervous System

Brain, Brain Stem

Compression

Hemorrhage

Brain, Cerebellum

Angiectasis

Brain, Cerebrum

Hydrocephalus

Peripheral Nerve

Spinal Cord

Respiratory System

Lung

Alveolar Epith, Hyperplasia

Infiltration Cellular, Histiocyte

Inflammation, Chronic Active

Metaplasia, Osseous

Nose

Inflammation, Chronic Active

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:35
First Dose M/F: NA / NA
Lab: NCTR

ANIMAL ID

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

Inflammation, Suppurative

Mucosa, Keratin Cyst

Vomeronas Org, Dilatation

Trachea

Special Senses System

Eye

Harderian Gland

Acinus, Degeneration

Degeneration

Infiltration Cellular, Lymphocyte

Urinary System

Kidney

Capsule, Inflammation, Chronic Active

Cyst

Hydronephrosis

Medulla, Cyst

Mineralization

Nephropathy

Pelvis, Inflammation, Suppurative

Polycystic Kidney

Renal Tubule, Hyperplasia

Transit Epithe, Hyperplasia

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:35
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1 10PPB

CD Rat Male F1 10PPB	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------------------	-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:35
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																			3 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperplasia, Lymphoid																			1 1.0
Inflammation, Chronic Active																			1 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Ileum	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis											2								1 2.0
Basophilic Focus																		X	3
Bile Duct, Hyperplasia			2															1	7 1.1
Biliar Tract, Fibrosis											1								1 1.0
Cyst Multilocular																			1
Degeneration, Cystic		2															1	1	5 1.2
Eosinophilic Focus	X	X									X					X	X		8
Focal Cellular Change											X								1
Hematopoietic Cell Proliferation																			1 1.0
Hepatodiaphragmatic Nodule																			4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	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	0	0	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	8	9	4	4	4	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6	6
	*TOTALS																			
Inflammation, Chronic																				1 1.0
Inflammation, Chronic Active				1		1							1		1					8 1.1
Mixed Cell Focus																				1
Necrosis																				2 2.0
Tension Lipidosis	1																			3 3.0
Vacuolization Cytoplasmic														2			1	1		10 1.4
Mesentery																				2
Fat, Necrosis																				2 3.5
Oral Mucosa																				4
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Acinar Cell, Degeneration	3	2	3	2	2		1	2	2	1		1	1	3	4	3	2	2	2	40 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Suppurative																				1 2.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Keratin Cyst				X																1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy	1	1	1	1	2	2	1	1	1	1	1	1		2	2	2		1		40 1.4
Endocardium, Hyperplasia																				1 3.0
Endocrine System																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:36
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 10PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3	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	0	0	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6	6
	*TOTALS																			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Accessory Adrenal Cortical Nodule			X				X													2
Angiectasis		2								3										3 2.0
Degeneration, Cystic																				4 1.8
Hyperplasia						1				1	2	2								7 1.7
Hypertrophy																				1 1.0
Vacuolization Cytoplasmic						1			1					2						10 1.6
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia																				5 1.6
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia														1			1	1		5 1.0
Parathyroid Gland	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	46
Hyperplasia			2						1			1								6 1.3
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Cyst						X								X						5
Pars Distalis, Hyperplasia	2		1			2	3	3				2		1					2	12 1.8
Pars Intermed, Hyperplasia										2										1 2.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C Cell, Hyperplasia			1						1				2	1						6 1.2
Cyst, Squamous		X				X		X	X	X		X			X					16
Follicular Cel, Hyperplasia																				1 2.0

General Body System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6
	*TOTALS																		
Tissue NOS	1																		
Genital System																			
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																			2 3.5
Developmental Malformation	X	X							X			X		X	X				11
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy									3										5 2.2
Hypospermia									4										6 4.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Abscess														4					1 4.0
Atrophy		2				2	2		1										5 1.8
Duct, Dilatation			2	2	2									3	3				15 2.5
Hyperplasia, Basal Cell																			1 3.0
Infiltration Cellular, Lymphocyte							2	2		1						2		2	10 1.7
Inflammation, Chronic Active									2										2 2.0
Inflammation, Suppurative			2	2	3									1	3	2			23 2.7
Keratin Cyst																			1
Prostate, Dorsal/Lateral Lobe			+						+										50
Atrophy																			1 3.0
Infiltration Cellular, Lymphocyte																1			1 1.0
Inflammation, Chronic Active		1				2	1												4 1.3
Inflammation, Suppurative	1			2	1			1	1		2	2	2	1	2		2	1	2 39 1.6

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:37
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:37
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6	6
	*TOTALS																			
Axillary, Infiltration Cellular, Plasma Cell	4																			
Lumbar, Degeneration, Cystic	4 3 3																			
Lumbar, Hyperplasia, Lymphoid	3 1																			
Lumbar, Infiltration Cellular, Plasma Cell	3 4 2																			
Mediastinal, Infiltration Cellular, Plasma Cell	2																			
Pancreatic, Degeneration, Cystic	3																			
Renal, Degeneration, Cystic	4 4																			
Thoracic, Degeneration, Cystic	4																			
Lymph Node, Mandibular	+ + + + + + + + + + + + + + + + + +																			
Degeneration, Cystic	1 2																			
Hyperplasia, Lymphoid	2 1 2 2 3 2 2 3 2 2 2 2 2 2 2 2 1 2																			
Infiltration Cellular, Plasma Cell	2 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2 3																			
Lymph Node, Mesenteric	+ + + + + + + + + + + + + + + + + +																			
Degeneration, Cystic	1																			
Hyperplasia, Lymphoid	2																			
Infiltration Cellular, Plasma Cell	1																			
Inflammation, Granulomatous	1 1 2 2 2 2 1																			
Spleen	+ + + + + + + + + + + + + + + + + +																			
Capsule, Cyst	X																			
Depletion Lymphoid	1																			
Hematopoietic Cell Proliferation	2 1 2 2 1 2 2 2 1																			
Hyperplasia, Lymphoid	2																			
Hyperplasia, Stromal	4																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST

ANIMAL ID

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

*TOTALS

Pigmentation	1				1				2	2				1	1				2	2				22	2.0
Red Pulp, Hyperplasia																				4	1	4.0			
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46				
Atrophy	4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	44	3.9			
Cyst																				1					
Epithel Cell, Hyperplasia																				2	2.0				
Integumentary System																									
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47				
Acinus, Degeneration				4	3			1			3	1	3	3			4			3	4	2	24	2.7	
Alveolus, Hyperplasia													1								6	1.8			
Duct, Dilatation																				1	1.0				
Duct, Ectasia																				1	4.0				
Duct, Hyperplasia								1								1	2	1.0							
Duct, Inflammation, Chronic Active																				1	3.0				
Ectasia													1	1				7	2.0						
Lactation				3											1	2				10	2.0				
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Abscess																				1	4.0				
Cyst Epithelial Inclusion											X								2						
Fibrosis													2								1	2.0			
Foreign Body																				1					
Inflammation, Chronic Active	4	4	4	4	4					4	4				4	4	4				21	3.9			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

CD Rat Male F1 10PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
		8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	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	0	0	0	0	0	0	0	0	
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	4	9	9	9	
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6		*TOTALS
Musculoskeletal System																					
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																					1
Nervous System																					
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression																					9 2.7
Hemorrhage																					1 1.0
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																3					1 3.0
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus																					1 2.0
Peripheral Nerve																					1
Spinal Cord																					0
Respiratory System																					
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Alveolar Epith, Hyperplasia																1				4	4 2.0
Infiltration Cellular, Histiocyte									1	1			3		1			1		3	13 1.6
Inflammation, Chronic Active																					2 2.0
Metaplasia, Osseous				1																	3 1.0
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic Active																	2				1 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:38
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 10PPB**

CD Rat Male F1 10PPB		DAY ON TEST																							
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
		5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6					
		8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	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	0	0	0	0	0	0					
		5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7					
		8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9					
		5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6					
		*TOTALS																							
Inflammation, Suppurative		1										2										7	2.4		
Mucosa, Keratin Cyst																						2			
Vomeronas Org, Dilatation		4										2										3	3.0		
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Special Senses System																									
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47					
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48					
Acinus, Degeneration																						4	1.3		
Degeneration																						1	3.0		
Infiltration Cellular, Lymphocyte																						1	2.0		
Urinary System																									
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48					
Capsule, Inflammation, Chronic Active												4										1	4.0		
Cyst						X	X					X	X					X	X			21			
Hydronephrosis																						1	1.0		
Medulla, Cyst												X										1			
Mineralization																						1	1.0		
Nephropathy		2	1	2	1	2	2	1	1	1	1	2	2	1	2	1	2	2	2	1	46	1.7			
Pelvis, Inflammation, Suppurative				2	1																			2	1.5
Polycystic Kidney																						1	4.0		
Renal Tubule, Hyperplasia																						1	1.0		
Transit Epithe, Hyperplasia				2	2																			5	2.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 10PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	1	1	1	1	1	2	2	2	2	2	2	2	3	3	3	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	0	0	0	0	0	0
	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	8	8	8	3	4	4	4	4	8	8	8	8	9	4	4	4	9	9	9
	5	6	7	9	0	1	2	3	6	7	8	9	0	3	4	5	4	5	6
	*TOTALS																		
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
	49																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:41
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1 50PPB**

CD Rat Male F1 50PPB	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	
		2	2	4	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		3	5	1	0	8	3	4	5	6	8	8	8	0	0	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	8	7	0	5	6	7	3	1	2	5	9	2	3	7	0	6	6	6	6	6	6	7	7	7	7	7	7	7	7	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0		0	0	0	1	1	1	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5		
1		1	4	6	2	8	9	1	1	1	5	6	7	0	0	7	0	4	4	4	4	4	9	9	9	9	0	4	4	4	4	
	2	6	2	2	2	2	8	1	8	9	1	1	1	5	3	2	1	2	3	4	5	6	7	8	9	0	2	3	4	5	6	
Prostate, Dorsal/Lateral Lobe	+					+										+	+				+					+						
Inflammation, Chronic Active																																
Inflammation, Suppurative			4	1	2	2		2	2	1	1	1	2	2		2			1	2	2		2	1	2	1	1		1	1	2	2
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																				1						1						
Infiltration Cellular, Lymphocyte	2																				1											
Inflammation, Chronic Active																									2		1					
Inflammation, Suppurative			3					1													1											
Rete Testes	+	+	+	+	+	M	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	
Dilatation																									2			2				
Fibrosis																																
Seminal Vesicle	A	+	+	+	+	A	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy										2			3		2																	
Inflammation, Suppurative			4																													
Lumen, Dilatation																					4		2									
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminif Tub, Degeneration							2	4		1							1	2	2				1		2		4					
Hematopoietic System																																
Bone Marrow	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Erythroid Cell, Hyperplasia															2	2																
Hypocellularity																																
Myeloid Cell, Hyperplasia				1				3				2		2																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:42
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1 50PPB

CD Rat Male F1 50PPB	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	
		2	2	4	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		3	5	1	0	8	3	4	5	6	8	8	8	0	0	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	8	7	0	5	6	7	3	1	2	5	9	2	3	7	0	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0		0	0	0	0	1	1	1	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	
1		1	4	6	2	8	9	1	1	5	6	7	0	0	7	0	4	4	4	4	4	4	9	9	9	9	0	4	4	4	4	4
2		6	2	2	2	2	8	1	8	9	1	1	1	5	3	2	1	2	3	4	5	6	7	8	9	0	2	3	4	5	6	
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle			+										+																			
Nervous System																																
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression				2	2																											
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hydrocephalus																																
Infiltration Cellular																																
Peripheral Nerve			+										+																			
Spinal Cord			A										A																			
Respiratory System																																
Lung	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar Epith, Hyperplasia																									1						1	
Artery, Mineralization																											1	1				
Infiltration Cellular, Histiocyte						1						1								1			2	2							1	
Infiltration Cellular, Lymphocyte																																
Inflammation, Chronic Active															1																	
Metaplasia, Osseous																																
Nose	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Foreign Body																																
Inflammation, Suppurative										3					4							1										

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:43
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

CD Rat Male F1 50PPB	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	
		2	2	4	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		3	5	1	0	8	3	4	5	6	8	8	8	0	0	3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	8	7	0	5	6	7	3	1	2	5	9	2	3	7	0	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	3	3	3	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5	5	5	5	
	1	1	4	6	2	8	9	1	1	5	6	7	0	0	7	0	4	4	4	4	4	4	9	9	9	9	0	4	4	4	4	4	4	
	2	6	2	2	2	2	8	1	8	9	1	1	1	5	3	2	1	2	3	4	5	6	7	8	9	0	2	3	4	5	6	6	6	
Pelvis, Inflammation, Suppurative		3																																
Renal Tubule, Hyperplasia																																		
Urethra		+																																
Urinary Bladder	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hemorrhage		2	3																															
Inflammation, Suppurative		3	2																															
Transit Epi the, Hyperplasia			2																															

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:43
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	5
	8	8	8	8	8	8	2	1	1	1	2	2	2	2	2	2	2	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	8	8
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	9	4	5	0	0
	4	5	6	7	4	6	8	9	0	1	5	6	7	8	9	9	0	0	1
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																			3 1.3
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Dilatation																			1 3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis			2				2												4 1.8
Basophilic Focus			X	X		X	X	X		X	X				X		X	X	17
Biliar Tract, Fibrosis							1												1 1.0
Clear Cell Focus																			1
Degeneration, Cystic								1		1	1		1	2	1				8 1.1
Eosinophilic Focus		X	X	X			X	X					X	X	X	X		X	15
Hematopoietic Cell Proliferation			2									1						1	3 1.3
Hepatodiaphragmatic Nodule								X	X										6
Infiltration Cellular, Lymphocyte																			1 1.0
Inflammation, Chronic Active						1				1				1			1	1	9 1.1
Mixed Cell Focus											X								1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:44
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	5	
	8	8	8	8	8	8	2	1	1	1	2	2	2	2	2	2	2	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	8	8	
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	9	4	5	0	0
	4	5	6	7	4	6	8	9	0	1	5	6	7	8	9	9	0	0	1
	*TOTALS																		
Inflammation, Suppurative	1 3.0																		
Endocrine System																			
Adrenal Cortex	+ + + + + + + + + + + + + + + + + + + 50																		
Accessory Adrenal Cortical Nodule	1																		
Angiectasis	2 2 1 3 1.7																		
Atrophy	1 4.0																		
Cyst	1 4.0																		
Degeneration, Cystic	2 4 2.5																		
Hyperplasia	1 1 2 6 1.5																		
Hypertrophy	3 1.7																		
Pigmentation	1 4.0																		
Vacuolization Cytoplasmic	1 1 2 1 1 1 11 1.3																		
Adrenal Medulla	+ + + + + + + + + + + + + + + + + + + 49																		
Hyperplasia	1 1 1 2 3 13 1.8																		
Islets, Pancreatic	+ + + + + + + + + + + + + + + + + + + 49																		
Hyperplasia	1 1 7 1.0																		
Parathyroid Gland	+ + + + + + + + + + + M + + + + + + + 46																		
Hyperplasia	3 1 1 2 2 9 1.9																		
Pituitary Gland	+ + + + + + + + + + + + + + + + + + + 50																		
Pars Distalis, Cyst	X X 6																		
Pars Distalis, Hyperplasia	4 1 3 1 2 17 2.1																		
Pars Intermed, Cyst	1																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically M ..Missing tissue 1-4 ..Lesion qualified as:
 X ..Lesion present A ..Autolysis precludes evaluation 1) Minimal 3) Moderate
 I ..Insufficient tissue BLANK ..Not examined microscopically 2) Mild 4) Marked

CD Rat Male
F1 50PPB

CAS Number: 57-63-6

*TOTALS

Page 71

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	8	8	2	1	1	1	2	2	2	2	2	2	2	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	8	8	8
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	9	4	5	0	0	0
	4	5	6	7	4	6	8	9	0	1	5	6	7	8	9	9	9	0	1	1
	*TOTALS																			
Lymph Node	+	+					+						+		+			+		15
Axillary, Hyperplasia, Lymphoid	3																			1 3.0
Axillary, Infiltration Cellular, Plasma Cell	3						3													2 3.0
Inguinal, Hyperplasia, Lymphoid																				1 3.0
Inguinal, Infiltration Cellular, Plasma Cell																				2 4.0
Lumbar, Degeneration, Cystic	4	2											2		2					9 3.0
Lumbar, Hyperplasia, Lymphoid																				1 2.0
Lumbar, Infiltration Cellular, Plasma Cell	4	3					3													5 3.4
Popliteal, Infiltration Cellular, Plasma Cell	4																			1 4.0
Renal, Degeneration, Cystic	2																	4		3 2.7
Renal, Hyperplasia, Lymphoid																				1 2.0
Renal, Infiltration Cellular, Plasma Cell	3																			2 3.5
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Degeneration, Cystic			2				3					3		2		2				11 2.2
Hyperplasia, Lymphoid	2	2	4	2	2	2	2	2		2	2	2	1	2	2			2	3	29 2.1
Infiltration Cellular, Plasma Cell	2	2				3	2	2	3	2	3	3		2	2		1	3	4	32 2.4
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperplasia, Lymphoid														2	2					3 2.0
Inflammation, Granulomatous						3						1	1							9 1.6
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Depletion Lymphoid																				1 4.0
Hematopoietic Cell Proliferation	2			2		2	1				2	1	1	1	2	2	1	1	2	24 1.5
Hyperplasia, Stromal										4										2 4.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1 50PPB

CAS Number: 57-63-6

Lab: NCTR

Page 74

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:45
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	8	8	2	1	1	1	2	2	2	2	2	2	2	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	8	8	8
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	9	4	5	0	0	0
	4	5	6	7	4	6	8	9	0	1	5	6	7	8	9	9	0	0	1	1
	*TOTALS																			
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																				2
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression	1				4															4 2.3
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus					2															1 2.0
Infiltration Cellular																		1		1 1.0
Peripheral Nerve																				2
Spinal Cord																				0
Respiratory System																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Alveolar Epith, Hyperplasia																3				3 1.7
Artery, Mineralization																				2 1.0
Infiltration Cellular, Histiocyte							1		2				1		1	3				11 1.5
Infiltration Cellular, Lymphocyte																	2			1 2.0
Inflammation, Chronic Active																				1 1.0
Metaplasia, Osseous																1				1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Foreign Body								X												1
Inflammation, Suppurative		1				4		3									1			7 2.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:46
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	5
	8	8	8	8	8	8	2	1	1	1	2	2	2	2	2	2	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	7	7	8	8	
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	4	5	0	0	
	4	5	6	7	4				1	5	6	7	8	9	9	0	0	1	
	*TOTALS																		
Mucosa, Keratin Cyst	X																		
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Epithelium, Hyperplasia																			1 2.0
Infiltration Cellular, Lymphocyte																			1 2.0
Special Senses System																			
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Bilateral, Retina, Degeneration																	4		1 4.0
Cataract															X				1
Cornea, Inflammation, Chronic Active																			1 2.0
Inflammation, Chronic Active																4			1 4.0
Inflammation, Suppurative						4													2 4.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Acinus, Degeneration																			1 1.0
Infiltration Cellular, Lymphocyte					1														5 1.0
Lacrimal Gland																			2
Ectopic Harderian																			1 3.0
Zymbal's Gland																			2
Urinary System																			
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst	X	X		X			X	X			X				X	X			19
Mineralization		1										2							4 1.5
Nephropathy	2	2	3	2	2	2	2	2	1	2	3	3	1	3	2	2	1	1	2 40 1.8

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:46
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1 50PPB

CD Rat Male F1 50PPB	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	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5	5
		8	8	8	8	8	8	2	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	3	6	6	6	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
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	8	8	8	8	8	8	8	8	8	8
	9	9	9	9	0	0	4	4	5	5	9	9	9	9	9	9	9	9	9	4	5	0	0	0	0	0	0	0	0	0	0
	4	5	6	7	4	6	8	9	0	1	5	6	7	8	9	9	9	9	0	0	1										
																												*TOTALS			
Pelvis, Inflammation, Suppurative																												1	3.0		
Renal Tubule, Hyperplasia																												1	1.0		
Urethra																												2			
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hemorrhage																												2	2.5		
Inflammation, Suppurative																												2	2.5		
Transit Epithe, Hyperplasia																												1	2.0		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1/2PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

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	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	1	3	4	6	0	1	1	2	4	4	5	8	9	1	2	3	3	4	5	5	5	5	5	5	5	5	6	6
	5	0	4	9	9	3	0	9	3	2	6	6	1	5	9	5	7	6	7	6	6	7	7	7	7	8	8	8	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	1	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6
	5	6	7	8	0	5	5	6	6	8	9	1	5	8	2	4	6	7	8	3	3	8	8	3	8	8	3	3	3
	5	8	9	7	7	0	3	0	7	7	7	5	5	5	6	0	2	2	9	0	1	6	7	4	5	1	2	3	6

[illegible]

2) Mild 4) Marked

CD Rat Male
F1/2PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male F1/2PPB TO CTL	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	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		8	1	3	4	6	0	1	1	2	4	4	5	8	9	1	2	3	3	4	5	5	5	5	5	5	5	6	6	6
		5	0	4	9	9	3	0	9	3	2	6	6	1	5	9	5	7	6	7	6	6	7	7	7	7	8	8	8	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	1	1	1	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	5	5	5	5	6	6	6	
	5	6	7	8	0	5	5	6	6	8	9	1	5	8	2	4	6	7	8	3	3	8	8	3	3	8	3	3	3	
	5	8	9	7	7	0	3	0	7	7	7	5	5	5	6	0	2	2	9	0	1	6	7	4	5	1	2	3	5	
Infiltration Cellular, Lymphocyte																														
Inflammation, Chronic Active						1										1		1	1		2			1	1					
Mixed Cell Focus																														
Necrosis																					2								1	
Vacuolization Cytoplasmic											2		1	1									2				1			
Mesentery													+																	
Fat, Necrosis													4																	
Oral Mucosa							+					+		+		+														
Keratin Cyst																														
Pancreas	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration	3	2	1	1	2	1	1		2		2		1	3	1	4	2	3	2	2	2	3	2	3	1	2	4	2	2	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration																														
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema																					2									
Epithelium, Hyperplasia					2		1													2										
Hyperplasia, Basal Cell																													4	
Inflammation, Suppurative					3																									
Ulcer					2																									
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema																				2										

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:47
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

	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	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	8	1	3	4	6	0	1	1	2	4	4	5	8	9	1	2	3	3	4	5	5	5	5	5	5	5	5	5
	5	0	4	9	9	3	0	9	3	2	6	6	1	5	9	5	7	6	7	6	6	7	7	7	8	8	8	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	1	1	1	1	1	1	1	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5	5
	5	6	7	8	0	5	5	6	6	8	9	1	5	8	2	4	6	7	8	3	3	8	8	3	8	8	8	3
	5	8	9	7	7	0	3	0	7	7	5	5	5	6	0	2	2	9	0	1	6	7	4	5	1	2	3	5
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrium, Dilatation						3					2																	
Atrium, Thrombosis																												
Cardiomyopathy	2		1	1	3	1	1		2	4	2	1	2	2	1			1	3		1	2		1	1	1	2	3
Inflammation, Suppurative					2																							
Metaplasia, Osseous																												
Ventricle, Dilatation																												
Endocrine System																												
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Accessory Adrenal Cortical Nodule																	X											
Angiectasis																					2							
Atrophy																												
Degeneration, Cystic		1											2				2									1		
Hyperplasia																									1			
Hypertrophy																	2									1		
Vacuolization Cytoplasmic						2	1		1														1	1		1		
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+
Atrophy																												
Hyperplasia										1				1	1		1						1		1			
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia		1	1					1					1													1		1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:48
First Dose M/F: NA / NA
Lab: NCTR

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

CD Rat Male
F1/2PPB TO CTL

Lab: NCTR

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:49
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:49

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

1 ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:51
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

CD Rat Male F1/2PPB TO CTL	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	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		8	1	3	4	6	0	1	1	2	4	4	5	8	9	1	2	3	3	4	5	5	5	5	5	5	5	6	6	6	
		5	0	4	9	9	3	0	9	3	2	6	6	1	5	9	5	7	6	7	6	6	7	7	7	7	8	8	8	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	5	6	7	8	0	1	5	5	6	6	8	9	1	5	8	2	4	6	7	8	3	3	8	8	3	3	8	8	3	3	
	5	8	9	7	7	0	3	0	7	7	7	5	5	5	6	0	2	2	9	0	1	6	7	4	5	1	2	3	5	6	
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinus, Degeneration										1												1									
Infiltration Cellular, Lymphocyte						1																									
Zymbal's Gland														+																	
Inflammation, Suppurative														4																	
Urinary System																															
Kidney	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst		X					X		X		X		X			X		X		X				X		X	X	X	X	X	
Hydronephrosis						3															2										
Inflammation, Suppurative																															
Medulla, Cyst																								X							
Mineralization						3																									
Nephropathy	1	1	3	2	4	1	1		1		2	2	2	1	1	1	1	2	2	2	1	1	2	2	2	1	3	4	3	2	
Pelvis, Hemorrhage						3																									
Pelvis, Inflammation, Suppurative						3														4											
Polycystic Kidney																															
Renal Tubule, Hyperplasia																															
Transit Epithe, Hyperplasia										1																					
Urethra						+																									
Hemorrhage						3																									
Urinary Bladder	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Dilatation																															

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:51
First Dose M/F: NA / NA
Lab: NCTR

Hemorrhage
Inflammation, Chronic Active
Inflammation, Suppurative
Transit Epithe, Hyperplasia

Page 88

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:51
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	3	2	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																			2 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Dilatation																			1 4.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Dilatation																			1 4.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Dilatation																			1 4.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Dilatation																			1 4.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Dilatation																			1 2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Basophilic Focus						X													3
Bile Duct, Hyperplasia																			3 1.0
Biliar Tract, Fibrosis										1					1	1	1		6 1.0
Capsule, Fibrosis																			1 1.0
Degeneration, Cystic					1		1					1							9 1.1
Eosinophilic Focus			X										X	X			X		11
Hepatodiaphragmatic Nodule											X								2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:52
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/2PPB TO CTL**

CD Rat Male F1/2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7																			
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6																			
		1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	1																			
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																				
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7																				
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9																				
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3																				
																				*TOTALS																			
Infiltration Cellular, Lymphocyte																				1		1	1.0																
Inflammation, Chronic Active																				1		1	1.1																
Mixed Cell Focus																					X		1																
Necrosis																							2	1.5															
Vacuolization Cytoplasmic																				1	1	2	8	1.4															
Mesentery																								1															
Fat, Necrosis																							1	4.0															
Oral Mucosa																				+			5																
Keratin Cyst																				X			1																
Pancreas																				+	+	+	+	+	+	+	+	+	+	+	+	+	49						
Acinar Cell, Degeneration																				1	3	3	2	2	1	1	3	2	4	2	1	1	2	2	2	3	1	46	2.0
Salivary Glands																				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Acinus, Degeneration																												2									1	2.0	
Stomach, Forestomach																				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Edema																																					1	2.0	
Epithelium, Hyperplasia																																					4	2.3	
Hyperplasia, Basal Cell																																					1	4.0	
Inflammation, Suppurative																																					1	3.0	
Ulcer																																					1	2.0	
Stomach, Glandular																				+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Edema																																						1	2.0

Cardiovascular System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:52
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	8	9	0	1	2	3
	*TOTALS																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrium, Dilatation																				2 2.5
Atrium, Thrombosis							4													1 4.0
Cardiomyopathy	1	2	1		1	2	2	2	2	2		1	2	2		1		2	1	40 1.7
Inflammation, Suppurative																				1 2.0
Metaplasia, Osseous							2													1 2.0
Ventricle, Dilatation							4													1 4.0
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Accessory Adrenal Cortical Nodule							X													2
Angiectasis	2		2																1	4 1.8
Atrophy							3													1 3.0
Degeneration, Cystic								1										1		6 1.3
Hyperplasia																				1 1.0
Hypertrophy							3						2							4 2.0
Vacuolization Cytoplasmic										1	1		2		2		2			11 1.4
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy							3													1 3.0
Hyperplasia	1			1		1		1				1	2							12 1.1
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia		1	1							1	1									10 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:52
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	8	9	0	1	2	3
	*TOTALS																			
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia						2				1				2						8 2.1
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Cyst				X	X				X											6
Pars Distalis, Hyperplasia					1	1						2				3		2	1	8 2.0
Pars Intermed, Cyst																				1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C Cell, Hyperplasia																				2 1.0
Cyst, Squamous						X	X			X		X					X			11
Infiltration Cellular, Lymphocyte																				1 1.0
General Body System																				
Tissue NOS																				1
Genital System																				
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																				1 2.0
Developmental Malformation				X		X			X				X		X					14
Hemorrhage																				1 4.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	2																			4 2.3
Hyperplasia																				1 4.0
Hypospermia	4								2											4 3.5
Infiltration Cellular, Lymphocyte							1													1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:53
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3
	*TOTALS																		
Penis																			1
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																			6 1.7
Cyst																			1
Duct, Dilatation		3	3		2		3	4									2	3	12 2.8
Infiltration Cellular, Lymphocyte	1			1		1				1									9 1.2
Inflammation, Chronic Active											1								2 1.5
Inflammation, Suppurative		4	3		3		2	4	1			2	1			2	3	3	25 2.6
Prostate, Dorsal/Lateral Lobe				+			+	+		+	+	+	+				+		50
Cyst																			1
Hemorrhage																			1 4.0
Inflammation, Chronic Active			1			1													4 1.5
Inflammation, Suppurative	1	2			1				2					1	1	2	1	1	34 1.6
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage																			1 4.0
Hyperplasia												2	3					4	7 2.3
Infiltration Cellular, Lymphocyte			1			1													2 1.0
Inflammation, Chronic Active				2															6 2.2
Inflammation, Suppurative																			3 2.7
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	47
Dilatation														1					2 2.0
Fibrosis	3																		1 3.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:53
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	3	2	2	2	2	2	2	2	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3	3
	*TOTALS																			
Atrophy																				
Dilatation																				
Hemorrhage																				
Lumen, Dilatation																				
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Granuloma Sperm																				
Seminif Tub, Degeneration	4	1		2		1	1	4						1		1		2		
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hypocellularity																				
Myeloid Cell, Hyperplasia																				
Lymph Node	+	+		+	+	+	+	+				+	+		+	+			+	
Axillary, Hyperplasia, Lymphoid																				
Axillary, Infiltration Cellular, Plasma Cell																				
Inguinal, Hyperplasia, Lymphoid																				
Inguinal, Infiltration Cellular, Plasma Cell																				
Lumbar, Degeneration, Cystic		3			3	2	2	2						3				2		
Lumbar, Hyperplasia, Lymphoid																				
Lumbar, Infiltration Cellular, Plasma Cell	4	4		3		2	2				3		3					2		
Renal, Degeneration, Cystic																				
Renal, Hyperplasia, Lymphoid																				
Renal, Infiltration Cellular, Plasma Cell																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:53
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	2	1
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	8	9	0	1	2	3
	*TOTALS																			
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic						4	3	2						1						6 3.0
Hyperplasia, Lymphoid	2	3		3	1					1	2	2	2		2	2	2	2	2	24 2.0
Infiltration Cellular, Plasma Cell	2	3	2	4	2	3	2	2	2	1		2			2	2	2	3	2	39 2.2
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic																				1 2.0
Hyperplasia, Lymphoid								2												1 2.0
Inflammation, Granulomatous						2	2				2	2	2					2		14 1.7
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Depletion Lymphoid																				2 3.0
Hematopoietic Cell Proliferation			2													1	2			16 2.2
Hyperplasia, Lymphoid		2			2		2											2		5 1.8
Infiltration Cellular, Polymorphnuclr																				1 4.0
Pigmentation			2									1	3				1			18 1.9
Thymus	+	+	+	+	+	+	+	+	+	+	M	+	+	M	+	+	+	+	+	46
Atrophy	4	4	4	4	4	4	4	4	4	4		4	4		4	4	4	3	4	42 3.9
Cyst, Squamous																				1
Degeneration, Cystic																				1 3.0
Epithel Cell, Hyperplasia													2							2 2.0
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Acinus, Degeneration	2	1											4	2	3	4	4	1	1	24 2.7

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:54
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/2PPB TO CTL**

CD Rat Male F1/2PPB TO CTL		DAY ON TEST																				ANIMAL ID			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
		6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6					
		1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	2	1				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
		3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9				
		8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3	*TOTALS				
Alveolus, Hyperplasia		1																				2	2.0		
Ectasia																						3	1.3		
Lactation																						5	2.0		
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Cyst Epithelial Inclusion		X																				2			
Dermis, Fibrosis		3																				1	3.0		
Dermis, Inflammation, Chronic Active		2																				1	2.0		
Dermis, Necrosis		3																				1	3.0		
Hyperkeratosis																						2	2.0		
Inflammation, Chronic Active		4	4	4	4			4	4		4	4	4	4	4	4	4		4	4	28	4.0			
Inflammation, Pyogranulomat																						1	4.0		
Inflammation, Suppurative																						1	4.0		
Musculoskeletal System																									
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Skeletal Muscle		+																				2			
Nervous System																									
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Compression																						7	2.6		
Hemorrhage																						1	2.0		
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				
Hydrocephalus																						2	2.0		
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1/2PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:54
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	3	2	2	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3	3
	*TOTALS																			
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinus, Degeneration																				2 1.0
Infiltration Cellular, Lymphocyte	2			1																3 1.3
Zymbal's Gland																				1
Inflammation, Suppurative																				1 4.0
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst	X		X	X		X			X			X	X	X		X	X	X	X	25
Hydronephrosis																				2 2.5
Inflammation, Suppurative							3													1 3.0
Medulla, Cyst																				1
Mineralization																				1 3.0
Nephropathy	1	1	2	2	1	1	4	1	1	1	1	4	1	2	1	2	2	2	2	47 1.8
Pelvis, Hemorrhage																				1 3.0
Pelvis, Inflammation, Suppurative																				2 3.5
Polycystic Kidney							4													1 4.0
Renal Tubule, Hyperplasia							2													1 2.0
Transit Epithe, Hyperplasia																				1 1.0
Urethra																				1
Hemorrhage																				1 3.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Dilatation												4			4					2 4.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:55
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	1	2	2	2	2	1	3	2	2	2	2	2	3	2	2	2	2	2	1
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	3	8	8	8	8	8	3	3	3	4	4	4	8	8	8	9	9	9	9
	8	1	2	3	4	5	7	8	9	0	1	2	7	8	9	0	1	2	3
*TOTALS																			
Hemorrhage	1 3.0																		
Inflammation, Chronic Active	1 2.0																		
Inflammation, Suppurative	1 3.0																		
Transit Epithe, Hyperplasia	2 1.5																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:55
First Dose M/F: NA / NA
Lab: NCTR

[illegible]

Esophagus	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	A	A	+	A	+	+	+	+	+	A	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia, Lymphoid																	2											
Inflammation, Chronic Active					2																							
Inflammation, Suppurative							4																					
Intestine Large, Colon	+	+	A	A	+	A	A	+	+	+	A	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	A	A	+	A	A	+	+	+	+	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	A	A	+	A	A	+	+	+	+	A	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	A	A	+	A	A	+	+	+	A	A	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	A	A	+	A	A	+	+	+	A	A	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic Active					2																							
Liver	+	+	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Basophilic Focus									X	X		X		X	X										X	X	X	
Bile Duct, Hyperplasia							2					2				1		1		2								
Biliar Tract, Fibrosis																		1										
Degeneration, Cystic							2		2		1				2									1		1		
Eosinophilic Focus												X																
Hematopoietic Cell Proliferation								1																			1	
Hepatodiaphragmatic Nodule											X								X									
Infiltration Cellular, Lymphocyte																									1			
Inflammation, Chronic Active					1												1		1		1		1		1		2	

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:56
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

CD Rat Male F1/10PPB TO CTL	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
	2	2	3	4	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	1	4	8	5	1	1	7	5	6	7	2	3	2	3	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5
	9	1	6	4	2	1	6	9	9	9	7	5	0	9	6	3	6	6	6	6	6	6	6	7	7	7	7	7	7
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	1	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5
	0	1	3	4	6	7	1	1	3	5	3	4	4	6	8	8	9	3	3	3	4	9	9	9	9	9	3	3	4
7	3	2	6	9	0	3	7	4	1	6	7	8	5	0	4	5	7	8	9	0	1	2	3	4	5	8	9	0	1
Inflammation, Suppurative				4																									
Necrosis				4	1											1													
Tension Lipidosis																4													
Vacuolization Cytoplasmic								2						1	2		2		1	2	1	1	1		1		2		
Mesentery										+																			
Fat, Necrosis																													
Oral Mucosa										+																			
Gingival, Inflammation, Chronic Active								2																					
Pancreas	+	+	A	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinar Cell, Degeneration		2					2		1		2	2	4		2		1	3	2	2	2	1	4	2	1		2	3	1
Salivary Glands	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Stomach, Forestomach	+	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Edema														4															
Epithelium, Hyperplasia																											2		
Inflammation, Suppurative															2														
Ulcer															3														
Stomach, Glandular	+	+	A	A	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiovascular System																													
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrium, Dilatation														2															
Cardiomyopathy			2	2	1		3	2		2	1	1	2	2	1	1	2	2	1	2		1	2	1	1	1	2	1	2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

DAY ON TEST

ANIMAL ID

[illegible]

Cyst, Squamous

General Body System

NONE

Genital System

Coagulating Gland

Developmental Malformation

Inflammation, Chronic Active

Inflammation, Suppurative

Ductus Deferens

Inflammation, Suppurative

Epididymis

Atrophy

Hypospermia

Infiltration Cellular, Lymphocyte

Penis

Dilatation

Preputial Gland

Abscess

Atrophy

Duct, Dilatation

Infiltration Cellular, Lymphocyte

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

1 ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:57
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/10PPB TO CTL**

CD Rat Male F1/10PPB TO CTL	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		
	2	2	3	4	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	1	4	8	5	1	1	7	5	6	7	2	3	2	3	4	4	4	5	5	5	5	5	5	5	5	5	5	5		
	9	1	6	4	2	1	6	9	9	7	5	0	9	6	3	6	6	6	6	6	6	7	7	7	7	7	7	7	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	0	0	1	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5		
	0	1	3	4	6	7	1	1	3	5	3	4	4	6	8	8	9	3	3	3	4	9	9	9	9	9	3	3	4	
7	3	2	6	9	0	3	7	4	1	6	7	8	5	0	4	5	7	8	9	0	1	2	3	4	5	8	9	0	1	8
Inflammation, Suppurative				2		3		3	4	4	3	1		2	3		2	4	3						2	2	3	2	1	
Prostate, Dorsal/Lateral Lobe	+	+		A																									+	
Infiltration Cellular, Lymphocyte					1																									
Inflammation, Chronic Active																										1				
Inflammation, Suppurative			1				4	3	1	3	3	3	2	2	2	3	3	1	3	3	2	2	1	3	2	2		2	2	1
Prostate, Ventral Lobe	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																			1			2	2		3					
Infiltration Cellular, Lymphocyte																	1									1				
Inflammation, Chronic Active																								3						
Inflammation, Suppurative							4				3				1												1			
Rete Testes	+	+	+	A	+	A	+	+	+	+	+	+	M	M	+	+	M	+	M	+	+	+	+	+	M	+	+	+	+	
Dilatation										1																			2	
Fibrosis								1																					2	
Seminal Vesicle	+	+	A	A	+	+	+	+	+	+	+	A	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																										1				
Inflammation, Suppurative							4																							
Lumen, Dilatation																							2			4				
Testes	+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Seminif Tub, Degeneration		1			2		1	4	2		1			1	1		1	3		1	1	4		3	4		2	1	4	
Hematopoietic System																														
Bone Marrow	+	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hypocellularity																													2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:58

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

DAY ON TEST

ANIMAL ID

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

Infiltration Cellular, Plasma Cell

Inflammation, Granulomatous

Spleen

Hematopoietic Cell Proliferation

Hyperplasia, Stromal

Infiltration Cellular, Polymorphnuclr

Necrosis

Pigmentation

Thymus

Atrophy

Epithel Cell, Hyperplasia

Integumentary System

Mammary Gland + + A A + A +

Acinus, Degeneration

Alveolus, Hyperplasia

Atypical Focus

Duct, Hyperplasia

Ectasia

Lactation

[illegible]

Abscess

Cyst Epithelial Inclusion

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:55:59

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

CD Rat Male F1/10PPB TO CTL		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	
		2	2	3	4	5	5	5	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		1	4	8	5	1	1	7	5	6	7	2	3	2	3	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	
		9	1	6	4	2	1	6	9	9	9	7	5	0	9	6	3	6	6	6	6	6	6	7	7	7	7	7	7	7	7	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	
		0	0	0	0	0	0	1	2	2	2	3	3	3	3	3	3	3	4	4	4	4	4	4	4	4	4	5	5	5	5	5
		0	1	3	4	6	7	1	1	3	5	3	4	4	6	8	8	9	3	3	3	4	9	9	9	9	9	3	3	4	4	8
		7	3	2	6	9	0	3	7	4	1	6	7	8	5	0	4	5	7	8	9	0	1	2	3	4	5	8	9	0	1	8
Inflammation, Chronic Active		2																														
Metaplasia, Osseous		1																														
Thrombosis		4																														
Nose		+	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic Active		2																														
Inflammation, Suppurative		1																														
Mucosa, Hyperkeratosis		4																														
Mucosa, Hyperplasia		4																														
Mucosa, Keratin Cyst		X																														
Trachea		+	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Special Senses System																																
Eye		+	+	A	A	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Retina, Degeneration		3																														
Harderian Gland		+	+	A	A	+	A	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Infiltration Cellular, Lymphocyte		2																														
Lacrimal Gland		+																														
Ectopic Harderian		X																														
Urinary System																																
Kidney		+	+	A	A	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst		X																														
Hydronephrosis		4																														
Inflammation, Suppurative		3																														

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:55:59
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

CD Rat Male F1/10PPB TO CTL	DAY ON TEST	0 2 1 9	0 2 4 1	0 3 8 6	0 4 5 4	0 5 1 2	0 5 1 1	0 5 7 6	0 6 5 9	0 6 6 9	0 6 7 7	0 7 2 5	0 7 3 9	0 7 2 6	0 7 3 6	0 7 4 6	0 7 4 6	0 7 5 6	0 7 5 6	0 7 5 6	0 7 5 6	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5 7	0 7 5
--------------------------------	-------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	-------------

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:55:59
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Hyperplasia, Lymphoid																			1 2.0
Inflammation, Chronic Active																			1 2.0
Inflammation, Suppurative																			1 4.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	41
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	41
Inflammation, Chronic Active																			1 2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Basophilic Focus		X		X							X								11
Bile Duct, Hyperplasia										1							1		7 1.4
Biliar Tract, Fibrosis			1																2 1.0
Degeneration, Cystic		1			1						1					1			10 1.3
Eosinophilic Focus		X	X										X	X					5
Hematopoietic Cell Proliferation							1				1					1			5 1.0
Hepatodiaphragmatic Nodule																			2
Infiltration Cellular, Lymphocyte																			1 1.0
Inflammation, Chronic Active																			7 1.1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F1/10PPB TO CTL

CAS Number: 57-63-6

*TOTALS

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	8	8	1	1	1	1	1	2	2	2	2	3	2	2	3	3
Endocardium, Hyperplasia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ventricle, Dilatation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9
	9	0	1	2	3	4	5	6	7	1	2	3	4	6	7	8	7	8	9
	*TOTALS																		
Endocardium, Hyperplasia																			
Ventricle, Dilatation																			
Endocrine System																			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Accessory Adrenal Cortical Nodule																			
Angiectasis																			
Degeneration, Cystic																			
Hyperplasia																			
Hypertrophy																			
Vacuolization Cytoplasmic																			
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+
Cyst	X																		
Hyperplasia	4																		
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia	1																		
Parathyroid Gland	+	+	+	+	+	M	+	+	M	+	+	+	+	+	+	+	M	+	+
Hyperplasia																			
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Cyst																			
Pars Distalis, Hyperplasia																			
Pars Intermed, Cyst																			
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	3	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	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9	9
	9	0	1	2	3	4	4	5	6	7	1	2	3	4	6	7	8	7	8	9
	*TOTALS																			
C Cell, Hyperplasia					1		3												7	1.3
Cyst, Squamous		X												X			X		11	
General Body System																				
NONE																				
Genital System																				
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Developmental Malformation			X		X			X												8
Inflammation, Chronic Active					3															1 3.0
Inflammation, Suppurative																				2 3.5
Ductus Deferens																				1
Inflammation, Suppurative																				1 4.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																				4 2.0
Hypospermia																				4 4.0
Infiltration Cellular, Lymphocyte																				1 1.0
Penis																				1
Dilatation																				1 3.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Abscess																				1 4.0
Atrophy												2								3 2.7
Duct, Dilatation		4			2		1		1								1	2		16 2.4
Infiltration Cellular, Lymphocyte	1	2					1						1		1		1			9 1.2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:01
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/10PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	3	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	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9	9
	9	0	1	2	3	4	5	6	7	1	2	3	4	6	7	8	7	8	9	9
	*TOTALS																			
Inflammation, Suppurative			2	2	2	2		2	2	3				1		2		3	2	28
Prostate, Dorsal/Lateral Lobe			+			+								+			+			49
Infiltration Cellular, Lymphocyte													2							2
Inflammation, Chronic Active					4															2
Inflammation, Suppurative	2	2		2			2	1	2	2	2		2		2	2		1		37
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia		2																		5
Infiltration Cellular, Lymphocyte									1							1				4
Inflammation, Chronic Active					4			1										1		4
Inflammation, Suppurative										1										5
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Dilatation																				2
Fibrosis																				2
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Atrophy																				1
Inflammation, Suppurative																				1
Lumen, Dilatation				3					4		4									5
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Seminif Tub, Degeneration		2		1		1	1				4		1	4	4	1		1	4	29
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Hypocellularity																				1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:01
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

CD Rat Male F1/10PPB TO CTL		DAY ON TEST																			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
ANIMAL ID		8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
		8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9	
		9	0	1	2	3	4	5	6	7	1	2	3	4	6	7	8	7	8	9	
		*TOTALS																			
Myeloid Cell, Hyperplasia		2		2				1												7	2.1
Lymph Node		+		+				+						+		+		+		14	
Axillary, Infiltration Cellular, Plasma Cell																				1	4.0
Hemal, Degeneration, Cystic																				1	4.0
Hemal, Inflammation, Chronic Active																				1	3.0
Hemal, Necrosis																				1	2.0
Inguinal, Hyperplasia, Lymphoid																3				1	3.0
Inguinal, Infiltration Cellular, Plasma Cell																4				1	4.0
Lumbar, Degeneration, Cystic				3		4						4		2		2				8	3.1
Lumbar, Hyperplasia, Lymphoid																3		3		6	2.7
Lumbar, Infiltration Cellular, Plasma Cell				3		4		4						3		2		4		10	3.4
Mediastinal, Infiltration Cellular, Plasma Cell																				1	2.0
Renal, Degeneration, Cystic		4														2				3	3.3
Renal, Hyperplasia, Lymphoid																2				1	2.0
Renal, Infiltration Cellular, Plasma Cell		3														3				3	3.3
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Degeneration, Cystic																				4	2.5
Hyperplasia, Lymphoid						2	3	2	2			3	2	1	2			2	1	26	2.0
Infiltration Cellular, Plasma Cell		3			3	4	3	2			3	3	2	4	2		2	2		32	2.6
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Degeneration, Cystic																				1	4.0
Hyperplasia, Lymphoid				2				2	2	2	2	2	2							5	2.0
Infiltration Cellular, Mast Cell														3						1	3.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:01
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/10PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7
	8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9
	9	0	1	2	3	4	5	6	7	1	2	3	4	6	7	8	7	8	9
	*TOTALS																		
Infiltration Cellular, Plasma Cell																			1 2.0
Inflammation, Granulomatous	2		2											2					10 1.8
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hematopoietic Cell Proliferation	2	2	1					1			1	2	1	1	1				19 1.8
Hyperplasia, Stromal											4								1 4.0
Infiltration Cellular, Polymorphnuclr																			1 2.0
Necrosis																			1 2.0
Pigmentation				2						2	2				1	2	1		18 2.1
Thymus	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	40
Atrophy	4		4	4	4	4	4	4	4	4	4	4	4	4	4	3	4	4	39 3.9
Epithel Cell, Hyperplasia										1									2 1.5
Integumentary System																			
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Acinus, Degeneration	2	4						2	1			4	3	1		1			17 2.4
Alveolus, Hyperplasia				2			1								1			4	6 2.0
Atypical Focus					X														1
Duct, Hyperplasia																			1 2.0
Ectasia				2	3					1									12 1.8
Lactation	1			3	3					3	2								14 2.4
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Abscess																			1 4.0
Cyst Epithelial Inclusion																			2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:02

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

CD Rat Male F1/10PPB TO CTL	DAY ON TEST	0 7 5 8	0 7 5 8	0 7 5 8	0 7 5 8	0 7 5 8	0 7 6 1	0 7 6 1	0 7 6 1	0 7 6 1	0 7 6 2	0 7 6 2	0 7 6 2	0 7 6 3	0 7 6 2	0 7 6 2	0 7 6 3	0 7 6 3	0 7 6 3	*TOTALS		
	ANIMAL ID	0 0 5 8 9	0 0 5 9 0	0 0 5 9 1	0 0 5 9 2	0 0 5 9 3	0 0 6 4 4	0 0 6 4 5	0 0 6 4 6	0 0 6 4 7	0 0 6 4 1	0 0 6 4 2	0 0 6 4 3	0 0 7 4 4	0 0 7 4 6	0 0 7 4 7	0 0 7 4 8	0 0 7 4 9				
	Dermis, Inflammation, Chronic Active														2						2	2.0
	Epidermis, Hyperplasia														2						1	2.0
	Hair Follicle, Hemorrhage																				1	2.0
Hyperkeratosis																			1	2.0		
Inflammation, Chronic Active		4	4	4	4	4			4	4	4	4			4	4	4		4	28	3.9	
Inflammation, Suppurative																				1	4.0	
Musculoskeletal System																						
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Nervous System																						
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Compression		2			3	2														10	2.5	
Gliososis																				1	1.0	
Hemorrhage																				3	1.3	
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Hydrocephalus					2															4	1.5	
Respiratory System																						
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Alveolar Epith, Hyperplasia				4		1					1		1			1				9	1.7	
Artery, Mineralization		1			1															3	1.0	
Infiltration Cellular, Histiocyte		1		2		1				2		1			1			1		17	1.6	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:02
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	
		8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	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	0	0	0	0	0	0	
		5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
		8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9	
		9	0	1	2	3	4	5	6	7	1	2	3	4	6	7	8	7	8	9	
		*TOTALS																			
Inflammation, Chronic Active																				1	2.0
Metaplasia, Osseous																		1		2	1.0
Thrombosis																				1	4.0
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Inflammation, Chronic Active																				3	1.7
Inflammation, Suppurative		2																		2	1.5
Mucosa, Hyperkeratosis																				1	4.0
Mucosa, Hyperplasia																				1	4.0
Mucosa, Keratin Cyst																				1	
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Special Senses System																					
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45	
Retina, Degeneration																				1	3.0
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Infiltration Cellular, Lymphocyte																				1	2.0
Lacrimal Gland																				1	
Ectopic Harderian																				1	
Urinary System																					
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47	
Cyst		X	X	X	X				X		X			X		X	X			24	
Hydronephrosis																				2	4.0
Inflammation, Suppurative																				1	3.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:02
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/10PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	8	8	8	8	8	1	1	1	1	2	2	2	2	3	2	2	3	3	3	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	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7
	8	9	9	9	9	4	4	4	4	9	9	9	9	4	4	4	9	9	9	9
	9	0	1	2	3	4	4	5	6	7	1	2	3	4	6	7	8	7	8	9
	*TOTALS																			
Nephropathy	2	2	2	2	2	1	2	1	2	3	2	2	3	1	4	2	2	2	2	2
Urethra						+								+				+		
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation																				
Hemorrhage																				
Inflammation, Suppurative																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:02
First Dose M/F: NA / NA
Lab: NCTR

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

[illegible]

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:03

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:04
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:04
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

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
ANIMAL ID	4	5	5	5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	6	5	7	9	0	0	1	4	4	5	7	1	3	3	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	6	3	4	1	1	1	6	6	4	5	5	8	8	6	0	2	6	6	6	6	7	7	7	7	7	7	7	7	7	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	1	1	1	1	1	1	2	2	2	3	3	3	3	4	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5
	5	9	1	3	4	4	6	9	0	0	4	1	6	7	8	0	0	4	4	4	4	0	0	0	0	4	4	4	5	5	9
	0	2	0	1	7	8	2	2	1	6	3	7	4	1	8	0	4	6	7	8	9	1	2	3	4	7	8	9	0	1	8
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																															
Infiltration Cellular, Lymphocyte							1																				1				
Inflammation, Chronic Active										3					1																4
Inflammation, Suppurative		4											1								1										
Rete Testes	M	+	+	+	+	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Dilatation		1																		1									1		
Seminal Vesicle	+	+	+	+	+	+	+	+	A	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy							2	3		3							3														
Epithelium, Hyperplasia																															4
Inflammation, Suppurative										2																					4
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Polyarteritis																															
Seminif Tub, Degeneration	1	1	1	1	1			4					1	1			1								1	1			4		1
Hematopoietic System																															
Bone Marrow	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Erythroid Cell, Hyperplasia	4																														
Myeloid Cell, Hyperplasia		2								2		3			2																
Lymph Node												+		+	+	+							+		+					+	
Axillary, Hyperplasia, Lymphoid																															
Axillary, Infiltration Cellular, Plasma Cell																															
Inguinal, Degeneration, Cystic																															

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Species/Strain: Rat/CD

CAS Number: 57-63-6

Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

DAY ON TEST

ANIMAL ID

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:06
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/50PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Polyarteritis												2							1 2.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	45
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis									1										1 1.0
Basophilic Focus						X						X							6
Bile Duct, Hyperplasia					1		1				1								4 1.0
Cyst						X										X			2
Degeneration, Cystic					1				2			1	2						10 1.4
Eosinophilic Focus								X				X	X	X		X			10
Hematopoietic Cell Proliferation																			2 1.0
Hepatodiaphragmatic Nodule									X						X				3
Infiltration Cellular, Lymphocyte																		1	2 1.0
Inflammation, Chronic Active		1	1		1	1				1	1								12 1.1
Necrosis																			1 1.0
Tension Lipidosis																			2 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:07
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	1	2	3	4	1	2	3	4	2	
	*TOTALS																		
Vacuolization Cytoplasmic				2				1		2					1	1			12 1.6
Oral Mucosa									+									+	6
Keratin Cyst									X										1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration	1	2	2	1	4	2	1	2	4	2	1	1	2	2	1	2	1	2	46 2.1
Polyarteritis																			1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Epithelium, Hyperplasia																			2 2.5
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Tongue																			1
Inflammation, Chronic Active																			1 2.0
Cardiovascular System																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrium, Dilatation																			2 3.5
Cardiomyopathy	2	2	1	1	2	1			1	2	2	1	2	2	2	2	1	2	41 1.6
Metaplasia, Osseous																			1 2.0
Ventricle, Dilatation										3									1 3.0
Endocrine System																			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																			2 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:07
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/50PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2	2
	*TOTALS																			
Atrophy																				1 4.0
Degeneration, Cystic																		2		6 1.7
Hyperplasia	2		1		2					2	2				2			1	1	14 1.6
Hypertrophy			2							2				2		1				6 1.8
Vacuolization Cytoplasmic	1				1		1			1					2	1			1	15 1.3
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia	2		1		1														1	7 1.4
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia		1							1					1						7 1.0
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Bilateral, Hyperplasia				2																1 2.0
Hyperplasia			1			2				2							2			6 1.8
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Pars Distalis, Cyst																				1
Pars Distalis, Hyperplasia										2				2		2				10 2.0
Pars Intermed, Cyst																				1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
C Cell, Hyperplasia						1	1							2	2					7 1.6
Cyst, Squamous												X					X			8

General Body System

NONE

Genital System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:07
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2	2
	*TOTALS																			
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy																				2 2.0
Developmental Malformation				X						X										8
Inflammation, Suppurative				1																1 1.0
Lumen, Dilatation				2																3 2.7
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy					2				2	2	3	2								8 2.1
Hypospermia					4				4	4	4	4								8 3.8
Polyarteritis														2						1 2.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Abscess																			4	1 4.0
Atrophy	2									3	2									6 2.8
Duct, Dilatation							2								2		1			12 2.2
Infiltration Cellular, Lymphocyte										1	2									8 1.6
Inflammation, Chronic Active				4					1											3 2.3
Inflammation, Suppurative		2					4					2		1	4	3	2	1		23 2.4
Keratin Cyst																				2
Polyarteritis													2							1 2.0
Prostate, Dorsal/Lateral Lobe		+	+				+							+						50
Atrophy																				1 3.0
Degeneration																				1 2.0
Inflammation, Chronic Active																	2			3 2.3
Inflammation, Suppurative	2			3	2	2		1	1	1	2	2	2		3	1		3	2	35 1.7

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2	
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia					2	1														3 1.3
Infiltration Cellular, Lymphocyte																				2 1.0
Inflammation, Chronic Active			2																	4 2.5
Inflammation, Suppurative																				3 2.0
Rete Testes	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	46
Dilatation													2			1				5 1.2
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy			1																	5 2.4
Epithelium, Hyperplasia																				1 4.0
Inflammation, Suppurative																				2 3.0
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Polyarteritis													2							1 2.0
Seminif Tub, Degeneration			1	1	4			4	4	4	4		3		1	1				23 2.0
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Erythroid Cell, Hyperplasia																				1 4.0
Myeloid Cell, Hyperplasia	2		3	2																7 2.3
Lymph Node	+		+	+	+	+				+	+	+					+	+	+	19
Axillary, Hyperplasia, Lymphoid	4					4														2 4.0
Axillary, Infiltration Cellular, Plasma Cell	4					2														2 3.0
Inguinal, Degeneration, Cystic																	4			1 4.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:08
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5
	8	8	8	8	1	1	1	1	1	1	2	2	2	2	3	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2
	*TOTALS																		
Inguinal, Hyperplasia, Lymphoid	3																		1 3.0
Lumbar, Degeneration, Cystic	4		4		4	2	4			3	3	1				4	2	2	17 3.1
Lumbar, Hyperplasia, Lymphoid						3				3									4 2.8
Lumbar, Infiltration Cellular, Plasma Cell				2		3				4	2						3		9 3.0
Mediastinal, Degeneration, Cystic																			1 1.0
Mediastinal, Infiltration Cellular, Histiocyte																			1 3.0
Pancreatic, Hyperplasia, Lymphoid												2							1 2.0
Popliteal, Infiltration Cellular, Plasma Cell												4							1 4.0
Renal, Degeneration, Cystic	4									4						4			4 3.8
Renal, Infiltration Cellular, Plasma Cell										4									2 3.0
Thoracic, Infiltration Cellular, Plasma Cell																			1 3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic			2			3				1	2	2				2			15 1.9
Hyperplasia, Lymphoid		2	2	2		2	2	2	3			2			2	2	2	2	29 2.2
Infiltration Cellular, Plasma Cell	2	2	2	2	2	2	2		3	2	2	3	2		2	1	2	2	33 2.2
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Degeneration, Cystic																		3	2 3.0
Hyperplasia, Lymphoid	2			2														2	8 2.0
Inflammation, Granulomatous								1	2	3									7 2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Depletion Lymphoid																			2 3.0
Hematopoietic Cell Proliferation	1		3		2					1		2	1	1	2			1	21 1.8
Hyperplasia, Lymphoid					2														2 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:08
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F1/50PPB TO CTL**

CD Rat Male F1/50PPB TO CTL	DAY ON TEST																				ANIMAL ID										
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		7									
		5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		5									
		8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2		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										
		5	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	8										
		9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	0											
		9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2											
																						*TOTALS									
		Infiltration Cellular, Polymorphnuclr																			2		1	2.0							
		1	2		1					1				2	2	2	2		2	4		16	1.9								
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		47										
		3	4	4	4	4	3	4	4	4	4	4	4	4	4	4	4	4	4	4		47	3.9								
		Epithel Cell, Hyperplasia																				1	2.0								
Integumentary System																															
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		48									
		Acinus, Degeneration																												11	2.1
		1		1	2		2			2	3		2				1	3		2		14	1.9								
		Atypical Focus																											1		
		Duct, Dilatation																											1	4.0	
		Duct, Hyperplasia																			1		2							3	2.0
		Ectasia																												4	1.8
		Fibrosis																												1	4.0
		Lactation																			3									9	2.0
		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50									
		Abscess																												1	4.0
		Cyst Epithelial Inclusion																												4	
		4	4	4	4	4	4	4		4	4	4	4			4		4	4		29	4.0									
		Inflammation, Suppurative																												1	4.0
		Keratin Cyst																												1	
Musculoskeletal System																															

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:09

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:09
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F1/50PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	5	5
	8	8	8	8	1	1	1	1	1	2	2	2	2	2	3	2	2	2	2	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
	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	8	8
	9	0	0	0	5	5	5	5	5	0	0	0	0	0	5	5	5	5	0	0
	9	0	1	2	2	3	4	5	6	0	1	2	3	4	1	2	3	4	2	2
	*TOTALS																			
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Special Senses System																				
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Cataract										X										2
Inflammation, Chronic Active																				1 3.0
Retina, Degeneration																				1 4.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinus, Degeneration										1								2		5 1.8
Infiltration Cellular, Lymphocyte				1	2										1		1	2	2	8 1.4
Polyarteritis													1							1 1.0
Lacrimal Gland																				1
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst		X		X			X		X		X	X		X	X	X	X	X		23
Mineralization							2													4 1.3
Nephropathy	4	1	3	2	2	2	3	2	1	4	2	2	3	2	1	1	1	1	3	46 2.0
Pelvis, Inflammation, Suppurative																				1 2.0
Renal Tubule, Hyperplasia																				1 1.0
Transit Epithe, Hyperplasia	2																			2 2.0
Urethra																				1
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:11
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

	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
	1	4	4	5	5	5	5	5	5	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	4	5	5	5	4	4
	4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	9	9	0	0	0	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	1	1	2	2	3	3	3	4	4	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9
	2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	2	4	4	5	5
	1	4	9	6	8	5	5	5	3	2	4	0	0	2	5	6	7	0	9	0	1	1	2	9	0	4	9	5
Inflammation, Suppurative	2	2	2	1		2	2	1	2	2		1	4	3		1				2	1	2		2	1		1	2
Prostate, Ventral Lobe	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia				2		2														1								
Infiltration Cellular, Lymphocyte																												1
Inflammation, Chronic Active								1								1												
Inflammation, Suppurative						1							1															
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	M	M	+	+	+	+	+	+	M	+
Dilatation	3					1																						
Fibrosis																											2	
Seminal Vesicle	A	+	A	A	+	+	+	+	+	+	+	A	A	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+
Atrophy								3						4		3						1				3		
Inflammation, Chronic Active																												
Lumen, Dilatation										4																		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Seminif Tub, Degeneration	4											4			1	1	4			1			2		4		4	1
Hematopoietic System																												
Bone Marrow	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Myeloid Cell, Hyperplasia				1												4												
Lymph Node		+														+	+	+	+		+							+
Lumbar, Degeneration, Cystic															4		2			2		2						4
Lumbar, Hyperplasia, Lymphoid																				2								3
Lumbar, Infiltration Cellular, Plasma Cell																						2						

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:12
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male F3 0PPB	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																				
		1	4	4	5	5	5	5	5	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7																				
		5	2	2	2	2	6	8	9	9	0	3	4	4	6	7	0	0	0	4	4	4	4	4	4	4	5	5	5	4	4	4	4																			
		4	2	9	1	7	2	5	0	9	1	0	6	9	0	3	0	3	2	1	3	9	9	9	9	9	0	0	0	9	9	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	1	1	2	2	3	3	3	4	4	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9																			
	2	1	1	4	5	2	7	8	0	5	1	2	3	3	4	6	6	7	0	1	1	1	1	1	2	4	4	5	5	5	5	5	5																			
	1	4	9	6	8	5	5	5	3	2	4	0	0	2	5	6	7	0	9	0	1	2	9	0	4	9	0	2	3	4	4	4	5																			
Alveolus, Hyperplasia		2																												2																						
Ectasia		1																												2	1																					
Lactation		1																												2	1	2	1																			
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																				
Abscess		4																																																		
Cyst Epithelial Inclusion		X																												X																						
Fibrosis		4																																																		
Hyperkeratosis		2																																																		
Inflammation, Chronic		4																												4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Inflammation, Chronic Active		4																												4																						
Musculoskeletal System																																																				
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																				
Skeletal Muscle		+																												+																						
Degeneration		1																																																		
Nervous System																																																				
Brain, Brain Stem		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																				
Compression		2																												1	3	2	2																			
Hemorrhage		2																																																		
Brain, Cerebellum		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																				
Brain, Cerebrum		A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+																			
Hydrocephalus		2																																																		
Peripheral Nerve		+																												+																						

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F3 0PPB

CAS Number: 57-63-6

Lab: NCTR

Spinal Cord	A	A
Respiratory System		

[illegible][illegible]

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:12
First Dose M/F: NA / NA
Lab: NCTR

[illegible][illegible]

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5
	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
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1
*TOTALS																			

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hyperkeratosis																				3	2.3	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44		
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44		
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44		
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Angiectasis			1								2									3	1.7	
Basophilic Focus		X		X					X				X	X						9		
Bile Duct, Hyperplasia							1							2						8	1.9	
Biliar Tract, Cyst																				1		
Biliar Tract, Fibrosis			1													1				7	1.1	
Cyst																				1		
Cyst Multilocular															X					2		
Degeneration, Cystic		1				1			1		1	1						2		10	1.3	
Eosinophilic Focus			X			X						X			X			X		8		
Hematopoietic Cell Proliferation										1										1	1.0	
Hepatodiaphragmatic Nodule				X									X		X					8		
Hyperplasia, Regenerative																				1	4.0	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5
	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
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	2	5	6	7	8	9	9	0	1	
	*TOTALS																		
Infiltration Cellular, Lymphocyte	1 1																		
Inflammation, Chronic Active	1 1																		
Left Lat Lobe, Developmental Malformation	X																		
Mixed Cell Focus	X																		
Necrosis																			
Pigmentation																			
Tension Lipidosis	4																		
Vacuolization Cytoplasmic	1 1 2																		
Mesentery	+																		
Fat, Necrosis	4																		
Oral Mucosa																			
Inflammation, Suppurative																			
Pancreas	+ + + + + + + + + + + + + + + + + + +																		
Acinar Cell, Degeneration	1 2 1 3 3 3 2 2 1 3 2 2 2 2 2 2 4																		
Polyarteritis	2																		
Salivary Glands	+ + + + + + + + + + + + + + + + + + +																		
Stomach, Forestomach	+ + + + + + + + + + + + + + + + + + +																		
Epithelium, Hyperplasia																			
Hyperkeratosis																			
Stomach, Glandular	+ + + + + + + + + + + + + + + + + + +																		
Cardiovascular System																			
Blood Vessel	+ + + + + + + + + + + + + + + + + + +																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5	5
ANIMAL ID	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
	9	9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1	1
	*TOTALS																			
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrium, Dilatation																				2 3.0
Cardiomyopathy	2	1		3	1	1	1	1		2	1	1	2	2	1	1	2	3	2	40 1.7
Ventricle, Dilatation																				1 3.0
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Accessory Adrenal Cortical Nodule																				1
Angiectasis		2		2																3 2.0
Bilateral, Hyperplasia																				1 2.0
Degeneration, Cystic											1									2 1.0
Hyperplasia	1						1								1	1			2	7 1.1
Hypertrophy		2	2																	3 2.0
Vacuolization Cytoplasmic							1		2											7 1.6
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia	2		1	2					3	3			2		2		2			15 1.9
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Hyperplasia						1		1				1							1	7 1.0
Parathyroid Gland	+	I	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Hyperplasia																				4 1.8
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Pars Distalis, Cyst																				3
Pars Distalis, Hyperplasia							1	2								1				8 1.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:14
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3 0PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5	5
ANIMAL ID	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
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1	1
	*TOTALS																			
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
C Cell, Hyperplasia			1				1	2												4 1.3
Cyst, Squamous				X			X		X					X			X			12
General Body System																				
NONE																				
Genital System																				
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Atrophy																				1 3.0
Developmental Malformation				X																6
Inflammation, Chronic Active								2												1 2.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy								2												4 2.3
Hypospermia								4												4 4.0
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																				1 3.0
Duct, Dilatation	1		4											1			2	1		12 2.0
Infiltration Cellular, Lymphocyte						2			1		2				2	2		2		10 1.6
Inflammation, Chronic Active																				1 1.0
Inflammation, Suppurative	4		4	1	2		3			2	1			2			2			21 2.3
Prostate, Dorsal/Lateral Lobe			+	+										+						50
Cyst																				1
Inflammation, Chronic Active								4	1	2				2	1		1			11 1.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:14
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3 0PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5	
	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
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1	
	*TOTALS																			
Renal, Degeneration, Cystic	2																			
Renal, Infiltration Cellular, Plasma Cell	3																			
Lymph Node, Mandibular	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Degeneration, Cystic	2							2		2										4
Hyperplasia, Lymphoid		3		2			2		2	2	2	2	2		2	2				24
Infiltration Cellular, Plasma Cell		2	3			1	3	2		4				2			3	2	3	28
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Hyperplasia, Lymphoid																				2
Infiltration Cellular, Mast Cell																				1
Inflammation, Granulomatous	2					2								1					2	11
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Depletion Lymphoid																				1
Hematopoietic Cell Proliferation	2	2									2		2			2			1	13
Hyperplasia, Lymphoid																				2
Pigmentation	1	2		1	3	2	2	1	1	2	2	1	1	2	2				2	30
Polyarteritis																			2	1
Thymus	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	47
Atrophy	4	4	4	4	4	4	4	4		4	4	4	4	4	4	4	4	4	3	45
Epithel Cell, Hyperplasia		2			1									2	2			1	2	8
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42
Acinus, Degeneration	4	3	3	3	2		1		2	3	1	3	3	3	2		4		2	25

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:14

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3 0PPB

CD Rat Male F3 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4		
	ANIMAL ID	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		
	9	9	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1		
		9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	0	1	2	2		
		4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1		
Alveolus, Hyperplasia																					2	2.0
Ectasia																					3	1.3
Lactation																					7	1.4
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Abscess																					1	4.0
Cyst Epithelial Inclusion																					4	
Fibrosis																					1	4.0
Hyperkeratosis																					1	2.0
Inflammation, Chronic																					1	4.0
Inflammation, Chronic Active		4			4	4	4		4	4		4		4		4	4		4	20	4.0	
Musculoskeletal System																						
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Skeletal Muscle																					3	
Degeneration																					1	1.0
Nervous System																						
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Compression																					7	1.9
Hemorrhage																					1	2.0
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hydrocephalus																					1	2.0
Peripheral Nerve																					2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4
	0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5
	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
	9	9	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1
	9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	1	2	2	2
	4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1
	*TOTALS																		
Spinal Cord	0																		
Respiratory System																			
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Alveolar Epith, Hyperplasia		2			1					2									3 1.7
Infiltration Cellular, Histiocyte		2			1		1	1	1	2			1			2		1	19 1.2
Metaplasia, Osseous																			1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Chronic Active										2									2 2.0
Inflammation, Suppurative																			2 1.0
Mucosa, Keratin Cyst																			1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Special Senses System																			
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Inflammation, Chronic Active										2									1 2.0
Inflammation, Suppurative																			1 3.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Acinus, Degeneration										1	1								3 1.3
Infiltration Cellular, Lymphocyte																			2 1.5
Inflammation, Suppurative																			1 1.0
Lacrimal Gland																			1
Ectopic Harderian																			1
Zymbal's Gland																			1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:15
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3 0PPB

CD Rat Male F3 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	4
		0	0	9	9	9	9	3	2	4	5	5	5	5	5	5	4	3	2	5
		ANIMAL ID	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
		9	9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1
		9	9	0	0	0	1	3	4	5	9	0	0	0	0	0	0	1	2	2
		4	5	2	3	9	0	7	9	3	9	2	5	6	7	8	9	9	0	1
		*TOTALS																		
Urinary System																				
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst			X		X		X			X						X		X	X	18
Hydronephrosis														1						2 1.5
Nephropathy		2	3	2	2	1	2	2	1	2	3	2	1	1	2	2	1	1	1	4
Polyarteritis																			1	1 1.0
Urethra		+																		3
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Chronic Active																				1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:19
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

	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	0	0	0	0	0	0	0	0	0	0	0	0	0				
		3	3	4	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		3	4	3	2	8	9	1	2	3	3	4	5	6	6	6	6	7	7	8	2	2	3	3	4	4	4	4	5	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	4	5	
		1	7	4	7	6	6	8	8	0	8	6	3	0	6	6	3	0	6	6	3	4	0	0	4	0	4	9	9	9	0	0	9	0	9	0	9	0	9	0	9	0	9	0	9	0	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	1	2	3	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	
		5	6	2	5	7	0	0	1	1	1	2	2	3	3	3	4	4	4	4	8	9	0	0	1	1	2	4	4	5	8	9	9	9	9	9	9	9	9	9	9	9	9	9	9		
		6	3	8	7	4	1	6	2	3	6	1	6	3	4	5	1	3	9	6	3	2	4	7	8	1	6	7	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8	6	8	
Lacrimal Gland																																															
Ectopic Harderian																																															
Urinary System																																															
Kidney		+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst							X		X			X	X		X						X							X	X	X															X		
Hydronephrosis												3	2																																		
Nephropathy			1	2			1	1	3		1		2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	4	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	
Polyarteritis													2																																		
Transit Epithe, Hyperplasia			2																																												
Urethra																																															
Urinary Bladder		+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:19
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

CD Rat Male F3/2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
		9	9	3	2	2	2	4	4	4	4	4	4	5	5	5	5	9	7
	ANIMAL ID	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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
	0	0	4	4	4	4	5	5	5	5	5	6	6	6	6	0	0	1	
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6	
		*TOTALS																	
Alimentary System																			
Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	48
Hyperkeratosis																			4 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Edema																			1 4.0
Inflammation, Suppurative																			1 3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	44
Infiltration Cellular, Lymphocyte																			1 2.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	43
Intestine Small, Ileum	+	+	A	A	+	A	+	+	+	+	A	+	+	+	+	+	+	+	38
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	41
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Angiectasis																			1 2.0
Basophilic Focus	X		X					X			X				X				7
Bile Duct, Hyperplasia	1						1				1	1		1		1			9 1.0
Biliar Tract, Fibrosis		1										1							4 1.0
Capsule, Inflammation, Chronic Active																			1 2.0
Cyst									X										1
Degeneration, Cystic							1									2			7 1.4
Eosinophilic Focus															X		X		5
Hematopoietic Cell Proliferation																			1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:20
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

	DAY ON TEST																		ANIMAL ID		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4		
	9	9	3	2	2	2	2	4	4	4	4	5	5	5	5	5	5	9	7		
	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			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
	0	0	4	4	4	4	5	5	5	5	6	6	6	6	0	0	1	1			
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6			
Hepatodiaphragmatic Nodule																					2
Hyperplasia, Regenerative																					1 4.0
Infiltration Cellular, Lymphocyte																					2 1.5
Inflammation, Chronic Active																					7 1.3
Necrosis																					4 2.0
Tension Lipidosis																					1 2.0
Vacuolization Cytoplasmic																					7 2.1
Oral Mucosa																					8
Gingival, Inflammation, Chronic Active																					1 2.0
Keratin Cyst																					3
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			48
Acinar Cell, Degeneration																					39 2.1
Polyarteritis																					1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			49
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			48
Epithelium, Hyperplasia																					1 2.0
Hyperkeratosis																					1 2.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			46
Cardiovascular System																					
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			49
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			49
Atrium, Dilatation																					2 3.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:20
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

CD Rat Male F3/2PPB TO CTL		DAY ON TEST																		ANIMAL ID			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7				
		4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4				
		9	9	3	2	2	2	4	4	4	4	4	5	5	5	5	5	9	7				
		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				
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1				
		0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1				
		7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6				
																				*TOTALS			
Cardiomyopathy		1	1	1	1		1	1	1		2	1	1	2		1		2	2	37	1.5		
Endocardium, Hyperplasia						4														1	4.0		
Metaplasia, Osseous																				2	1.0		
Polyarteritis																				1	2.0		
Ventricle, Dilatation																				1	1.0		
Endocrine System																							
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49			
Angiectasis																				1	2.0		
Degeneration, Cystic																		2		4	1.5		
Hyperplasia															2					7	1.9		
Hypertrophy		2								2						2				5	1.8		
Vacuolization Cytoplasmic																1	1			8	1.4		
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	48			
Hyperplasia		1		1		1											1			9	1.0		
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48			
Hyperplasia							1		1		1	1								13	1.2		
Parathyroid Gland		M	+	+	+	+	M	M	+	M	+	+	+	+	+	+	+	+	+	44			
Bilateral, Hyperplasia																				1	1.0		
Cyst																			X	1			
Hyperplasia											2									2	2.0		
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48			
Inflammation, Suppurative																				1	4.0		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:21
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	9	3	2	2	2	4	4	4	4	4	5	5	5	5	5	5	9	7
	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1	1
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6	6
	*TOTALS																		
Necrosis																			
Pars Distalis, Cyst																			
Pars Distalis, Hyperplasia	3			2				2			1	2	3				2		
Pars Intermed, Cyst																			
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C Cell, Hyperplasia																			
Cyst, Squamous																			
Inflammation, Chronic Active																			
General Body System																			
NONE																			
Genital System																			
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy																			
Developmental Malformation																			
Lumen, Dilatation																			
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy	3															3			
Hypospermia	4							2								4			
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																			
Atrophy																			
Duct, Dilatation																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/2PPB TO CTL**

	DAY ON TEST																		ANIMAL ID		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4			
	9	9	3	2	2	2	4	4	4	4	4	4	5	5	5	5	5	9			
	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			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
	0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1			
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6			
																					*TOTALS
Infiltration Cellular, Lymphocyte	2													1			2	1		8	1.4
Inflammation, Chronic Active				1											1					4	1.5
Inflammation, Suppurative			3					2	1	1		2				2				19	2.4
Prostate, Dorsal/Lateral Lobe			+	M												+				48	
Atrophy																				1	2.0
Infiltration Cellular, Lymphocyte														1						2	1.0
Inflammation, Chronic Active							2	2							1					5	1.6
Inflammation, Suppurative	2	2			3	2			1	2	1	2	2				1	2		30	1.9
Prostate, Ventral Lobe	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+		48	
Atrophy																				1	2.0
Hyperplasia										1						2				3	1.3
Infiltration Cellular, Lymphocyte	1					1						1								4	1.3
Inflammation, Chronic Active							1	2									2			7	1.7
Inflammation, Suppurative																				1	4.0
Rete Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+		45	
Dilatation													1							3	1.7
Fibrosis	1																			2	1.5
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		44	
Atrophy																	2			5	2.2
Lumen, Dilatation			4		2															4	2.8
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		49	
Seminif Tub, Degeneration	4	1		1	1			4									4	1		20	2.3

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:21
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

CD Rat Male F3/2PPB TO CTL		DAY ON TEST																	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
ANIMAL ID		9	9	3	2	2	2	4	4	4	4	4	5	5	5	5	5	9	7
		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
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
		0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1
		7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6
		*TOTALS																	
Hematopoietic System																			
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hypocellularity				2															1 2.0
Myeloid Cell, Hyperplasia													3						6 2.0
Lymph Node			+			+			+	+					+		+		16
Inguinal, Degeneration, Cystic																			1 2.0
Inguinal, Infiltration Cellular, Plasma Cell																			1 2.0
Lumbar, Degeneration, Cystic			1			3									4				8 3.1
Lumbar, Hyperplasia, Lymphoid										3					4		2		4 2.8
Lumbar, Infiltration Cellular, Plasma Cell			4			4				3					4		4		8 3.4
Popliteal, Hyperplasia, Lymphoid																	3		2 2.5
Popliteal, Infiltration Cellular, Plasma Cell																	3		2 2.5
Renal, Degeneration, Cystic										2					4		2		6 3.0
Renal, Hyperplasia, Lymphoid										3									1 3.0
Renal, Infiltration Cellular, Plasma Cell										3							3		3 3.0
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Degeneration, Cystic		2		1	1		1						2					2	11 1.7
Hyperplasia, Lymphoid				2	1	2				2	2	2	2	2		1	2	1	27 1.9
Infiltration Cellular, Plasma Cell		2			1					4				2			2	3	26 2.2
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Hyperplasia, Lymphoid																			1 2.0
Infiltration Cellular, Mast Cell		2																	1 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:21
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/2PPB TO CTL**

CD Rat Male F3/2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4		
		9	9	3	2	2	2	4	4	4	4	4	5	5	5	5	5	9	7		
	ANIMAL ID	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		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
	0	0	4	4	4	4	5	5	5	5	5	6	6	6	6	0	0	1	1		
	7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6			
	*TOTALS																				
Inflammation, Granulomatous	1																			6	1.2
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Hematopoietic Cell Proliferation	2																			13	1.8
Hyperplasia, Lymphoid	3																			3	1.7
Infiltration Cellular, Polymorphnuclr																				1	4.0
Inflammation, Suppurative																				1	4.0
Necrosis																				1	4.0
Pigmentation	4 2 2 3 1 2 1 1 2 1 2 3 1																			28	2.0
Polyarteritis																				1	4.0
Thymus	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	45		
Atrophy	4	3	4	4		4	4	4	3	4	4	2	4	4	4	3	3	4	41 3.6		
Cyst	X X																			2	
Epithel Cell, Hyperplasia	2 2 2																			7	1.9
Polyarteritis																				1	3.0
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	42		
Acinus, Degeneration	3 1 3 3 2 1 4 3																			21	2.6
Alveolus, Hyperplasia	1 2 3 2																			6	2.3
Atypical Focus																				1	2.0
Cyst																				1	
Ectasia	2 4																			4	2.3
Galactocele	X X																			2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:22
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/2PPB TO CTL

CD Rat Male F3/2PPB TO CTL	DAY ON TEST																					
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4		
		9	9	3	2	2	2	4	4	4	4	4	4	5	5	5	5	5	9	7		
	ANIMAL ID	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			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
		0	0	4	4	4	4	5	5	5	5	5	6	6	6	0	0	1	1	1		
		7	8	3	4	7	8	4	5	6	7	8	6	7	9	3	4	5	6			
																					*TOTALS	
Lactation						3		2												6	2.0	
Polyarteritis																				1	2.0	
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Abscess																				1	4.0	
Cyst Epithelial Inclusion												X								4		
Fibrosis					4															1	4.0	
Inflammation, Chronic Active		4	4		4	4			4	4							4		4	17	4.0	
Musculoskeletal System																						
Bone																				1		
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Skeletal Muscle																				4		
Degeneration																				2	1.5	
Nervous System																						
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Compression					2	3				2							3			9	2.8	
Meninges, Inflammation, Suppurative																				1	3.0	
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Hydrocephalus																	2			2	2.0	
Peripheral Nerve																				4		
Spinal Cord																				0		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Male
F3/2PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:22
First Dose M/F: NA / NA
Lab: NCTR

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

[illegible]

Page 175

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:24
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

	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
	1	3	3	4	5	5	5	5	6	6	6	6	7	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	9	0	8	2	3	6	6	8	5	7	7	8	0	9	2	2	2	2	3	4	4	4	5	4	4	4	5	4	4	4
	8	2	9	4	9	5	8	2	6	4	4	6	9	9	1	0	4	3	7	9	9	9	0	9	8	8	0	9	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	1	2	3	3	3	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9	9
	2	4	8	1	8	3	6	3	4	4	6	7	7	8	8	9	9	0	1	1	1	4	4	5	5	8	8	8	9	9
	4	7	5	6	1	1	4	8	1	2	6	7	9	7	8	6	7	7	3	4	5	5	8	8	5	6	7	0	3	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Pars Distalis, Cyst								X															X			X				
Pars Distalis, Hyperplasia					2									2							2	2	1			1				
Pars Intermed, Cyst														X							X									
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C Cell, Hyperplasia												1																	1	
Cyst, Squamous											X			X		X				X	X		X			X				
Follicle, Cyst																														
Follicular Cel, Hyperplasia						2																								
General Body System																														
NONE																														
Genital System																														
Coagulating Gland	+	+	A	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy											3																			
Developmental Malformation												X								X			X	X		X				
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy											2											2								
Hypospermia											4									4		4								
Infiltration Cellular, Lymphocyte																														
Preputial Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Abscess																	4					4								
Atrophy						2					4																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:27
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4
	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Dilatation																			1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Dilatation																			1 3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Lymphoid Tiss, Hyperplasia																			1 2.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis			3																1 3.0
Basophilic Focus		X						X											5
Bile Duct, Hyperplasia					2	2	1					1	1			1			11 1.5
Biliar Tract, Cyst																			1
Biliar Tract, Fibrosis										1									7 1.1
Congestion																			1 3.0
Cytomegaly																			1 2.0
Degeneration, Cystic														1			1		6 1.2
Eosinophilic Focus					X							X		X					4
Hematopoietic Cell Proliferation																			2 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:27
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	1	1	7	8	
	*TOTALS																			
Hepatodiaphragmatic Nodule										X						X		X		4
Infiltration Cellular, Lymphocyte		1											1							4 1.0
Inflammation, Chronic Active							1													3 1.0
Karyomegaly																				1 2.0
Necrosis																				2 2.5
Oval Cell, Hyperplasia																				1 1.0
Tension Lipidosis				2																2 2.0
Vacuolization Cytoplasmic				1																6 1.7
Mesentery		+			+				+	+							+			6
Abscess											4									1 4.0
Fat, Necrosis		4			2				4											4 3.5
Oral Mucosa				+																4
Inflammation, Suppurative																				1 3.0
Keratin Cyst				X																3
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Acinar Cell, Degeneration	2	2	1		2		2	2	4	2	1	2	2	2	3	3	4		1	36 2.3
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Edema																				2 2.5
Epithelium, Hyperplasia																				2 2.0
Hyperkeratosis																				1 2.0
Inflammation, Chronic Active																				1 2.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:28
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

CD Rat Male F3/10 PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	
	ANIMAL ID	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	
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1		
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8	*TOTALS	
Cardiovascular System																					
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrium, Dilatation																				1 1.0	
Cardiomyopathy	2	2	1	1	2	1				1	2		1	1	2	1	2	2	2	1	38 1.7
Endocardium, Hyperplasia														2						1 2.0	
Ventricle, Dilatation																				1 1.0	
Endocrine System																					
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Accessory Adrenal Cortical Nodule							X												X	4	
Angiectasis																				1 2.0	
Degeneration, Cystic										2		4								5 1.8	
Hyperplasia				1																3 1.0	
Hypertrophy						2										1				4 2.5	
Vacuolization Cytoplasmic	1		1											1						9 1.4	
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia						1										2		2		8 1.6	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia					1		1		3		1									8 1.3	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Bilateral, Hyperplasia						3														1 3.0	
Hyperplasia	1								1					2	1				1	7 1.4	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Male
 F3/10 PPB TO CTL**

CD Rat Male F3/10 PPB TO CTL		DAY ON TEST																		*TOTALS		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
		3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4			4
ANIMAL ID		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			
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1			
		3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1			
		0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8		
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Pars Distalis, Cyst		X									X				X					6		
Pars Distalis, Hyperplasia		1				3			1	1				2		1		2	1	3	15	1.7
Pars Intermed, Cyst																				2		
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
C Cell, Hyperplasia								1											1	4	1.0	
Cyst, Squamous				X			X		X				X	X				X		13		
Follicle, Cyst			X																	1		
Follicular Cel, Hyperplasia																				1	2.0	
General Body System																						
NONE																						
Genital System																						
Coagulating Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48		
Atrophy																				1	3.0	
Developmental Malformation																X				6		
Epididymis		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Atrophy		2	3		3			3							3					7	2.6	
Hypospermia		4	4		4			4							4					8	4.0	
Infiltration Cellular, Lymphocyte			2			1														2	1.5	
Preputial Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Abscess																				2	4.0	
Atrophy			2																	3	2.7	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:28
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	1	1	7	8	8
	*TOTALS																			
Duct, Dilatation											2	3			2			2	11	2.4
Infiltration Cellular, Lymphocyte		2				1			1					1			1		9	1.2
Inflammation, Chronic Active																			1	2.0
Inflammation, Suppurative	3				2	2				3			3		2	2			3	24
Prostate, Dorsal/Lateral Lobe											+	+	+						50	
Cyst																	X	X	2	
Inflammation, Chronic Active							1												7	2.1
Inflammation, Suppurative	2	1	2	2	1	2		2	1	1				2	1	2	2	1	2	34
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia						2													2	2
Infiltration Cellular, Lymphocyte																			2	1.0
Inflammation, Chronic Active																		2	4	2.5
Inflammation, Suppurative				4															4	2.5
Rete Testes	+	+	+	M	+	M	+	+	+	+	+	+	+	+	+	+	+	M	+	43
Dilatation		3																	4	2.0
Fibrosis							3												1	3.0
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Atrophy																			4	2.0
Lumen, Dilatation																			3	3.3
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Polyarteritis																			1	3.0
Seminif Tub, Degeneration	4	4		4		4	4		1					4					17	2.7

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:29
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8
	*TOTALS																		

Hematopoietic System

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Myeloid Cell, Hyperplasia										2						1	2	12	2.0
Sinusoid, Dilatation																		1	4.0
Lymph Node				+				+		+	+							13	
Lumbar, Degeneration, Cystic								3			3							7	2.9
Lumbar, Hyperplasia, Lymphoid								3										2	2.5
Lumbar, Infiltration Cellular, Plasma Cell								3										5	2.6
Mediastinal, Degeneration, Cystic																		1	2.0
Popliteal, Hyperplasia, Lymphoid				3														2	3.0
Popliteal, Infiltration Cellular, Plasma Cell				3														2	3.0
Renal, Degeneration, Cystic										3								3	3.7
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic		2			2	2			2						1		1	11	1.8
Hyperplasia, Lymphoid		3	2	2	2		2	2		2	2		3		3	2	2	29	2.0
Infiltration Cellular, Plasma Cell	2	2	1		2	2	2	2		2	2		2	2		2	2	30	2.1
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia, Lymphoid																		1	2.0
Inflammation, Granulomatous						2			2			2			2	1	1	10	1.6
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Depletion Lymphoid																		1	2.0
Hematopoietic Cell Proliferation												1						8	1.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:29
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	4	4	4	4	4
	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8	8
	*TOTALS																			
Hyperplasia, Lymphoid	2																			
Hyperplasia, Stromal	4																			
Infiltration Cellular, Polymorphnuclr																				
Pigmentation	1	2		2	2		2					2	2		1		2			
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy	4	4	4	4	3	4	4	4	4	4	3	4	4	4	4	4	4	4	4	4
Cyst																				
Epithel Cell, Hyperplasia																				
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinus, Degeneration	1	4			1	4	4					2	2	3		4				
Alveolus, Hyperplasia	1																			
Atypical Focus																				
Ectasia	2																			
Fibrosis																				
Lactation	2																			
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion	X																			
Inflammation, Chronic Active	4																			
Musculoskeletal System																				
Bone																				
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:29
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:29
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/10 PPB TO CTL

	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		3	3	3	3	4	4	4	4	4	4	4	5	5	5	5	4	4	4	4	
ANIMAL ID		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	
		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	
		3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1	
		0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	1	7	
		*TOTALS																			
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Special Senses System																					
Ear		+																			1
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Inflammation, Chronic Active					2																1 2.0
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinus, Degeneration								1								2					3 1.3
Infiltration Cellular, Lymphocyte																					1 2.0
Lacrimal Gland																					2
Ectopic Harderian																					2
Zymbal's Gland																					2
Inflammation, Suppurative																					1 4.0
Urinary System																					
Kidney		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst			X	X		X	X		X	X	X	X					X	X		X	18
Hydronephrosis											1					3					3 2.0
Nephropathy		1	2	2	2	2	2	2	2	2	1	1		2	1	2	2	2	1		44 1.7
Pelvis, Inflammation, Suppurative																					1 2.0
Renal Tubule, Hyperplasia																					1 2.0
Transit Epithe, Hyperplasia					1			2													4 1.5
Urethra																					1
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:30
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
 F3/10 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	3	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	4	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	3	3	3	3	6	6	6	6	6	6	7	9	9	0	0	1	1	1	1
	0	5	6	9	1	2	3	4	5	8	0	7	8	0	1	0	1	7	8
*TOTALS																			
1 4.0																			
1 3.0																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:35
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
ANIMAL ID	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperkeratosis																			1 2.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Inflammation, Chronic Active																			1 4.0
Necrosis																			1 4.0
Polyarteritis																			1 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Inflammation, Chronic Active																			1 3.0
Necrosis																			1 3.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Inflammation, Chronic Active																			1 4.0
Necrosis																			1 4.0
Ulcer																			1 3.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis										2									5 1.8
Basophilic Focus																X	X		7
Bile Duct, Hyperplasia																			5 1.2
Biliar Tract, Cyst																			1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:35

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Male
F3/50 PPB TO CTL

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50 PPB TO CTL

CD Rat Male F3/50 PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
		9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4	
	ANIMAL ID	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	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	
	0	1	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1	
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4		
Hyperplasia						1									2			1		10	1.1
Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Hyperplasia		2	2										2			2	1			6	1.7
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Pars Distalis, Cyst	X																		X	6	
Pars Distalis, Hyperplasia	2	2	2	3							2		2		4	1		2		13	2.1
Pars Intermed, Cyst																				2	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
C Cell, Hyperplasia													2							3	1.7
Cyst, Squamous	X		X	X			X	X												9	
General Body System																					
Tissue NOS																				1	
Genital System																					
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy																				2	3.0
Developmental Malformation		X	X	X																9	
Inflammation, Suppurative																				1	4.0
Lumen, Dilatation													2							1	2.0
Ductus Deferens																				1	
Dilatation																				1	4.0
Inflammation, Chronic Active																				1	4.0
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:37
First Dose M/F: NA / NA
Lab: NCTR

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5		
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4		
ANIMAL ID	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		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1		
	0	1	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1		
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4		
*TOTALS																					
1																				3	1.3
2																				3	1.7
2																				5	1.8
2																				2	1.0
M + + + + + + + + + + + + + + + + + +																				44	
2																				2	2.0
+ + + + + + + + + + + + + + + + + +																				47	
2																				10	2.3
																				1	3.0
3																				6	2.5
1 3																					
+ + + + + + + + + + + + + + + + + +																				50	
4																				1	2.0
1																				19	2.5
2 2 3																					
+ + + + + + + + + + + + + + + + + +																				50	
2																				2	2.0
2																				2	2.0
2																				7	3.1
+ + +																				16	
																				1	1.0
																				1	3.0
																				1	3.0

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:37
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:37
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50 PPB TO CTL

CD Rat Male F3/50 PPB TO CTL		DAY ON TEST																			*TOTALS		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
		4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5			
		9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4			
ANIMAL ID		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			
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1			
		0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1			
		6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4			
Hyperplasia, Lymphoid		2																			2	2.0	
Infiltration Cellular, Plasma Cell																					1	2.0	
Infiltration Cellular, Polymorphnuclr																					3	3.0	
Necrosis																					2	2.0	
Pigmentation		2 1 1 2 1 1 3 4																			2 2	27	2.0
Thymus		+ + + + + + + + + + + + + + + + + + +																			45		
Atrophy		4 4 4 4 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4																			43	3.9	
Epithel Cell, Hyperplasia		2																			4	1.8	
Integumentary System																							
Mammary Gland		+ + + + + + + + + + + + + + + + + + +																			45		
Acinus, Degeneration		4 3 4 2 2 4																			2 3 3 3 3	26	2.8
Alveolus, Hyperplasia		1 1 2 3																			9	1.7	
Duct, Hyperplasia																					1	2.0	
Ectasia		2																			4	2.3	
Galactocele																					2		
Lactation		1 2																			8	1.9	
Skin		+ + + + + + + + + + + + + + + + + + +																			50		
Cyst Epithelial Inclusion		X																			2		
Inflammation, Chronic Active		4 4 4 4																			13	4.0	
Keratin Cyst																					1		
Musculoskeletal System																							
Bone, Femur		+ + + + + + + + + + + + + + + + + + +																			50		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:38
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Male
F3/50 PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	9	9	4	4	3	3	2	2	2	2	2	4	4	5	4	4
	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
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
	0	1	1	1	1	3	3	3	3	4	4	4	4	4	5	6	1	1	1
	6	1	2	3	4	1	2	3	4	0	1	2	5	6	9	0	2	3	4
*TOTALS																			

Nervous System

Brain																			1
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression																			2 3.5
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Gliosis																			1 2.0
Hydrocephalus																			3 1.0

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar Epith, Hyperplasia		1	1		2														4 1.3
Infiltration Cellular, Histiocyte		1	2		2	1						1							14 1.2
Infiltration Cellular, Lymphocyte																			1 4.0
Inflammation, Chronic Active																			1 3.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Infiltration Cellular, Lymphocyte																			1 3.0
Inflammation, Chronic Active																			1 2.0
Inflammation, Suppurative													1						3 2.3
Mucosa, Keratin Cyst																			1
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

Special Senses System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:39
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1 0PPB	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	
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		2	3	6	9	9	1	3	4	4	5	6	6	7	7	7	7	8	9	0	0	1	1	2	2	5	5	5	5	5	5	5	5	5	
		9	9	8	5	8	4	1	5	9	3	9	8	2	5	9	9	6	0	0	0	2	3	7	0	0	6	6	6	7	7	7	7	7	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5	5	
	7	8	0	3	4	5	7	8	0	1	3	3	4	4	5	5	6	7	9	0	1	2	2	2	0	0	0	5	0	0	0	0	0		
	7	1	9	7	5	7	6	8	2	0	0	1	0	1	2	4	8	5	4	2	5	3	8	9	5	6	7	9	6	7	7	7	8		
Mesentery																	+												+						
Fat, Necrosis																	2												2						
Oral Mucosa														+	+														+						
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Acinar Cell, Degeneration		3	2								1					2				3		2		3		2	2	1		1	2				
Lipomatosis																						2													
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Inflammation, Chronic														3																					
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Edema																	2																		
Hyperplasia										2							3																		
Inflammation										2																									
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cardiovascular System																																			
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Cardiomyopathy				1	1	2	1	1							2	1		1				2	2			1				2		1			
Endocrine System																																			
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Angiectasis			2			2																													
Atrophy																																			
Degeneration, Cystic					3		3	2	4	3	3	3	3	2	3	2	1	2	4	1	4	3			3	3	4	3	3	3	4	2			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Female
F1 0PPB

CAS Number: 57-63-6

Lab: NCTR

Page 218

CD Rat Female
F1 0PPB

CAS Number: 57-63-6

Lab: NCTR

CD Rat Female F1 0PPB	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					
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7					
		2	3	6	9	9	1	3	4	4	5	6	6	7	7	7	7	8	9	0	0	1	1	2	2	5	5	5	5	5	5					
		9	9	8	5	8	4	1	5	9	3	9	8	2	5	9	9	6	0	0	0	2	3	7	0	0	6	6	6	7	7	7				
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
	0	0	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	5	5					
	7	8	0	3	4	5	7	8	0	1	3	3	4	4	5	5	6	7	9	0	1	2	2	2	2	0	0	0	0	0	0					
	7	1	9	7	5	7	6	8	2	0	0	1	0	1	2	4	8	5	4	2	5	3	8	9	5	6	7	9	6	7	8					
Duct, Dilatation	2				2										3				2	2	2	1				3	2									
Duct, Hyperplasia, Squamous																																				
Inflammation	1				1	4			2	2	1	2	2	1	3	2	3	2	3			2	3			1	2	3	2	1	3	2				
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Atrophy	1	2	1	3	1	4	1			2	3	2	2	2	2	4	4	4	4	2	1	4	3	2	3	3	2	2	4	4	4					
Corpus Luteum, Cyst	X																																			
Cyst	X			X				X	X						X				X	X				X			X									
Hyperplasia, Sertoliform	1	1	1	1			2														1				1	2			1							
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Atrophy	2																																			
Dilatation	3																																			
Endometrium, Hyperplasia																																				
Endometrium, Hyperplasia, Cystic	1						3				2				1				2		1											2	3			
Hyperplasia, Atypical, Focal	1										1																						1			
Inflammation																																				
Metaplasia, Squamous	1																																1			
Pigmentation, Focal																																				
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+					
Inflammation	2				3	1			1			2			2			2			1			1			2									
Mucocyte, Hyperplasia	1	3	2	2	3	3			2			3	3	3	3			1	3	4				4	3	3	3	3	3	2	1	2	2			

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:40
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		2	3	6	9	9	1	3	4	4	5	6	6	7	7	7	7	8	9	0	0	1	1	2	2	5	5	5	5	5	5	5	5	5	5	
		9	9	8	5	8	4	1	5	9	3	9	8	2	5	9	9	6	0	0	2	3	7	0	0	6	6	6	7	7	7	7	7	7	7	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4	4	4	4	5	5	5	5	5	5	5	
	7	8	0	3	4	5	7	8	0	1	3	3	4	4	5	5	6	7	9	0	1	2	2	2	0	0	0	5	0	0	0	0	0	0		
	7	1	9	7	5	7	6	8	2	0	0	1	0	1	2	4	8	5	4	2	5	3	8	9	5	6	7	9	6	7	9	6	7	8	8	
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																				2																
Lymph Node								+			+									+		+							+	+				+		
Axillary, Degeneration, Cystic																																				
Axillary, Infiltration Cellular, Plasma Cell																																				
Deep Cervical, Infiltration Cellular, Plasma Cell																																				
Hyperplasia, Lymphoid												4																								
Infiltration Cellular, Plasma Cell																																				
Inguinal, Hyperplasia, Lymphoid												4																								
Inguinal, Infiltration Cellular, Plasma Cell																									3											
Lumbar, Degeneration, Cystic																			3		3											3	3			
Lumbar, Hyperplasia, Lymphoid																																	3			
Lumbar, Infiltration Cellular, Plasma Cell																																3	3			
Mediastinal, Hyperplasia, Lymphoid											2																									
Mediastinal, Pigmentation											2																									
Pancreatic, Pigmentation											2																									
Popliteal, Degeneration, Cystic																																				
Popliteal, Hyperplasia, Lymphoid																																				
Popliteal, Infiltration Cellular, Plasma Cell																																				
Renal, Degeneration, Cystic																																			2	
Renal, Infiltration Cellular, Plasma Cell																																			4	
Thoracic, Infiltration Cellular, Plasma Cell																																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:40
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female F1 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		2	3	6	9	9	1	3	4	4	5	6	6	6	7	7	7	7	7	8	9	0	0	1	1	2	2	5	5	5	5	5	5	5	5	5	
		9	9	8	5	8	4	1	5	9	3	9	8	2	5	9	9	6	0	0	0	0	2	3	7	0	0	6	6	6	6	7	7	7	7	7	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	5	5	5	5	5	
	7	8	0	3	4	5	7	8	0	1	3	3	4	4	5	5	6	7	9	0	1	2	2	2	2	0	0	0	5	0	0	0	0	0	0		
	7	1	9	7	5	7	6	8	2	0	0	1	0	1	2	4	8	5	4	2	5	3	8	3	8	9	5	6	7	9	6	7	7	7	8		
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Degeneration, Cystic							2				2								3		2					2		2	1	2							
Hemorrhage																																					
Hyperplasia, Lymphoid																		2				2											2				
Infiltration Cellular, Plasma Cell				2	2	2	3	2		2	2	3	2	3	3	2	2	2	3		2	3	3		3	3	2	2	2	2	2			3			
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																																					
Depletion Lymphoid																																					
Hyperplasia, Lymphoid						2				2										2	2																
Infiltration Cellular, Plasma Cell																2											2										
Pigmentation																																					
Spleen		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hematopoietic Cell Proliferation		2		2			2		1		2	1		2					2			2				2					2	2					
Pigmentation			3		2		2						2		2	1	3	2	1	2		2	1	2					1		2	1					
Red Pulp, Atrophy																																					
Thymus		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst							X		X	X	X	X			X		X	X	X		X	X							X	X							
Integumentary System																																					
Mammary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Alveolus, Hyperplasia		1		2	2	2	2		2		2	2		3	2	1	2		4	1	2	2			2	2	2	3	3	2							
Atypical Focus				2				1									1									2	1	2	2	1	1	1					
Duct, Dilatation										2																									2		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:41
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female F1 0PPB	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	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		2	3	6	9	9	1	3	4	4	5	6	6	7	7	7	7	8	9	0	0	1	1	2	2	5	5	5	5	5	5	5	5	
		9	9	8	5	8	4	1	5	9	3	9	8	2	5	9	9	6	0	0	2	3	7	0	0	6	6	6	7	7	7	7	7	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	4	4	4	4	5	5	5	5	
	7	8	0	3	4	5	7	8	0	1	3	3	4	4	5	5	6	7	9	0	1	2	2	2	2	0	0	0	5	0	0	0	0	
	7	1	9	7	5	7	6	8	2	0	0	1	0	1	2	4	8	5	4	2	5	3	8	9	5	6	7	9	6	7	8	7	8	
Galactoceles							X																											
Lactation		2	2	2	3		2	2							3	4	1	2			2				2		1	2		2	2			
Skin		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Abscess																									3									
Inflammation		2		2							3	4	4		4						4	3	4					4	4	1	4			
Musculoskeletal System																																		
Bone, Femur		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle																																		
Nervous System																																		
Brain, Brain Stem		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression			2	4	3		3								2	3	3	2	3	2		2	3	3					3	2				
Brain, Cerebellum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hydrocephalus										2																								
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hydrocephalus																		2				2												
Peripheral Nerve																																		
Spinal Cord																																		
Respiratory System																																		
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolar Epith, Hyperplasia																																		
Hemorrhage																																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:41

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 0PPB

DAY ON TEST

ANIMAL ID

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

Infiltration Cellular, Histiocyte

Inflammation

Nose

Goblet Cell, Hyperplasia

Inflammation

Nasolacrim Dct, Inflammation

Olfactory Epi, Hyaline Droplet

Respirat Epith, Hyperplasia

Trachea

Inflammation

Special Senses System

Eye

Bilateral, Retina, Degeneration

Cornea, Inflammation

Retina, Degeneration

Harderian Gland

Atrophy, Focal

Hyperplasia

Infiltration Cellular, Lymphocyte

Inflammation

Urinary System

Kidney

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:42
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F1 0PPB

CD Rat Female F1 0PPB	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	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0</
--------------------------	-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	-----

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:42
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	8	8	8	8	9	1	1	1	2	2	3	3	3	3	3	3	3	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5	5	5	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7
	0	5	5	5	5	0	0	1	5	0	0	5	5	5	5	5	6	6	6	6
	9	4	5	6	7	7	8	0	7	8	9	5	6	7	8	9	0	1	2	3
	*TOTALS																			

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Angiectasis			1																2	2 1.5
Basophilic Focus																				1
Bile Duct, Hyperplasia			1	2	1		1					1	2			1		2		13 1.4
Capsule, Hemorrhage, Focal																				2 2.0
Cyst Multilocular														X						3
Degeneration, Cystic																				1 2.0
Eosinophilic Focus																				1
Hematopoietic Cell Proliferation									1											2 1.0
Hepatodiaphragmatic Nodule																		X		1
Infiltration Cellular, Lymphocyte					1	1										1				3 1.0
Inflammation, Chronic Active															1			1		6 1.0
Periportal, Inflammation, Chronic							1		1									1		3 1.0
Vacuolization Cytoplasmic					2	2		2					2						2	12 2.2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:43
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:44
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 0PPB

	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		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6		
		7	8	8	8	8	9	1	1	1	2	2	3	3	3	3	3	3	3	3	2	2	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		5	5	5	5	5	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7		
		0	5	5	5	5	0	0	1	5	0	0	5	5	5	5	5	6	6	6	6		
		9	4	5	6	7	7	8	0	7	8	9	5	6	7	8	9	0	1	2	3		
																						*TOTALS	
Cyst						X	X					X					X	X					15
Epithelium, Pelvis, Hyperplasia																						1	1.0
Hemorrhage																						3	3.0
Inflammation																						2	2.0
Mineralization		2	2	1	1		2	1	2	2	2	3		1		2				2		31	1.8
Nephropathy			1	1		1	2	1	1	1	1	1		1		1	1	2	1		1	27	1.2
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51	
Infiltration Cellular, Lymphocyte																						1	2 1.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:48
First Dose M/F: NA / NA
Lab: NCTR

Urinary Bladder

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:48
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7
	6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6
	0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																			2 3.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic																			1 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																			1 1.0
Lymphoid Tiss, Inflammation																			1 3.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic																			1 1.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic									4										1 4.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																			1 1.0
Basophilic Focus																X			1
Bile Duct, Hyperplasia		1	2		1	1		2		1	1				1		1		15 1.3
Cyst										X									1
Eosinophilic Focus					X														1
Hematopoietic Cell Proliferation																			4 1.0
Infiltration Cellular, Lymphocyte	1																		2 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:48
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7
	6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6
	0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6
	*TOTALS																		
Inflammation, Chronic Active																			1 1.0
Periportal, Inflammation, Chronic			1	1		1		1							1				7 1.3
Right Lat Lobe, Developmental Malformation																			1
Vacuolization Cytoplasmic			2	1				2		2			1						8 1.8
Mesentery																			2
Fat, Necrosis																			1 3.0
Oral Mucosa																			1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration	2		2	1	1				2		2	2	3			2		1	1
Inflammation, Chronic			1																7 1.1
Lipomatosis																			1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation, Chronic																			2 3.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia																			2 2.0
Inflammation																			4 2.3
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Infiltration Cellular, Lymphocyte																			1 2.0
Cardiovascular System																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy				2			1	2	1	2		2	1	1		1			18 1.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:48
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 2PPB**

CD Rat Female F1 2PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	ANIMAL ID	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
		7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7
		6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6
		0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6
		*TOTALS																		
Myocardium, Necrosis		1 2.0																		
Endocrine System																				
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis		1 2.0																		
Degeneration, Cystic		3	1	1	3	2	4	2	2	2	2	4	2	3	2		2	3	2	3
Hyperplasia		3 2.0																		
Hypertrophy		3		2										2						11 2.1
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia		1 2.0																		
Parathyroid Gland		+	+	+	M	+	+	+	+	+	+	+	+	M	+	+	+	+	M	+
Hyperplasia		2 2.0																		
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Cyst		2																		
Pars Distalis, Hyperplasia		3 1.7																		
Pars Intermed, Cyst		3																		
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C Cell, Hyperplasia		4 1.5																		
Inflammation, Chronic		1 3.0																		
Ultimobranchial Cyst		4 3.0																		
General Body System																				
NONE																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:49
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2PPB

CD Rat Female F1 2PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2	
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7	
	6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6	
	0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6	
	*TOTALS																			
Genital System																				
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy		2	3									3								6 2.3
Duct, Dilatation		2	3	2		3		2			3	3								12 2.4
Duct, Hyperplasia, Squamous																				1 3.0
Hyperplasia																				2 1.5
Inflammation	1	2	1	3		2		3		1	3			2	2	3	2			33 2.2
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis												1								1 1.0
Atrophy	4	2	1	3	2	3	4	2	4	4	4	4	4	4	4	2	4	2	4	47 3.1
Corpus Luteum, Cyst																				2
Cyst		X		X				X				X	X	X						9
Hyperplasia, Sertoliform	1	1			1								1			1	2		2	17 1.5
Interstit Cell, Hyperplasia						3														1 3.0
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy															2					1 2.0
Endometrium, Hyperplasia						1					2			2		2				7 1.7
Endometrium, Hyperplasia, Cystic											2	3	3				2		3	14 2.1
Hemorrhage																				1 2.0
Hyperplasia, Atypical, Focal				1				1				2								14 1.4
Hypoplasia																				1 3.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:49
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 2PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7	7
	6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6	6
	0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6	6
	*TOTALS																			
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Depletion Lymphoid																				1 2.0
Hemorrhage																				1 2.0
Hyperplasia, Lymphoid					2															3 2.3
Infiltration Cellular, Plasma Cell																				3 2.3
Pigmentation					2															1 2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hematopoietic Cell Proliferation	1			1	2			2	2			2	2	2			2			22 1.9
Hyperplasia, Stromal																				1 4.0
Lymphocyte, Atrophy																				1 2.0
Pigmentation	1		1	1	2	2	2	2	3	2			3	2	1	2	2	2	2	31 2.0
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	44
Cyst	X		X	X		X	X			X		X					X		X	18
Inflammation, Chronic																				1 3.0
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Alveolus, Hyperplasia	4	2	3	2	3	4	2	3	3	1	2	2	2	4		3	2	3	3	38 2.4
Atypical Focus	2		3	2	2	2		2	2	1		1	1	3	1	1			2	23 1.8
Duct, Dilatation	3								2					3						5 2.8
Galactoceles	X													X						2
Lactation	3		2	2		3	2	2	3	2		2	1	3	1		2		2	32 2.1
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:50
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 2PPB

CD Rat Female F1 2PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6			
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2			
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4		4	4	4	4	5	5	5	5	6	6	7	7	7	7	7	7	7	7			
6		6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6			
0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6				
		*TOTALS																				
Inflammation																					16	3.4
Musculoskeletal System																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Nervous System																						
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Compression	2		2						2	3			2	3	3		2	2	3	26		
Hemorrhage																				1		
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Hydrocephalus																				2		
Respiratory System																						
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Alveolar Epith, Hyperplasia							1													1		
Artery, Mineralization							1													1		
Edema													1							1		
Infiltration Cellular, Histiocyte					2		2											2		10		
Inflammation										2										1		
Peribronchial, Inflammation, Chronic																				1		
Perivascular, Inflammation																				1		
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Foreign Body																				1		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:50
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 2PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7	7	7
	6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	1	6	6	6	6
	0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5	6	6
	*TOTALS																			
Goblet Cell, Hyperplasia																	2	1	2	1.5
Hemorrhage									4										1	4.0
Inflammation													2					1	5	2.0
Nasolacrim Dct, Inflammation	2	2	2	2	1	2		1	2		1	2		2	2	2		2	29	1.8
Olfactory Epi, Hyaline Droplet																			1	5 1.2
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Special Senses System																				
Ear																				1
Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Bilateral, Retina, Degeneration			3								1			3						5 2.0
Cataract	X																			1
Retina, Degeneration					2															1 2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia											2									2 2.0
Infiltration Cellular, Lymphocyte				1				2												2 1.5
Inflammation									1				2		1	1			1	10 1.3
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst								X			X	X	X		X			X	X	16
Inflammation																				1 3.0
Mineralization	1	2	2	3			2	2	2		3	1	2	2	2	2	2	1	2	33 2.0
Nephropathy	1	2		1		1	1	1	1	2	1	1	1	2	1				1	21 1.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:50
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F1 2PPB

	DAY ON TEST	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
			5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
			7	7	7	7	7	8	8	2	1	2	3	3	2	2	2	2	2	2
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
			4	4	4	4	4	5	5	5	5	6	6	6	7	7	7	7	7	7
			6	6	6	6	6	1	1	5	5	1	1	5	1	1	1	6	6	6
			0	1	2	3	4	0	1	8	9	1	2	8	0	1	2	3	4	5
			*TOTALS																	
Urinary Bladder			+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
																				49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:52
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

	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
	2	3	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7
	7	9	3	5	5	7	7	8	8	0	3	3	4	5	7	6	7	7	8	8	9	0	0	0	1	2	2	3
	5	1	8	5	5	5	9	2	3	4	2	4	5	7	6	3	5	6	7	8	5	1	3	9	5	5	7	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	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	4
	1	3	8	8	9	1	1	1	2	5	7	8	9	1	3	4	4	6	7	8	8	9	1	1	3	4	5	6
	7	4	3	9	3	2	5	7	0	5	5	0	1	3	5	8	4	7	6	2	9	6	3	3	9	8	5	9
Pigmentation	3			2		2		3				2	2	2	2	3	3	2	2	1	3	2	2	3		1	2	1
Thymus	M	+	+	+	+	+	+	M	M	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	M	+	+	+
Cyst			X		X					X	X			X	X		X	X				X						
Integumentary System																												
Mammary Gland	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Alveolus, Hyperplasia				1	1	4		2	2			4	2	2	2	1	2	3	2	2	3	2	2	1	3		2	1
Atypical Focus							1						1	2		1				1	1	2	1					
Galactocoele				X													X			X								
Lactation			2	1		2	1	2	2			3		2	2	2	2	2	2	2	2	2	2	1	2			
Lobules, Hyperplasia														2														
Skin	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation														4														
Musculoskeletal System																												
Bone, Femur	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Fibrous Osteodystrophy		3																										
Skeletal Muscle																												+
Head, Hyalinization, Focal																												2
Nervous System																												
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression				3		3	2		3					3	3	3	2	2	2	2	3		2	3	3	3		3
Hemorrhage																												

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:53
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation																			1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Developmental Malformation																			1
Mineralization																			1 2.0
Muscularis, Inflammation, Chronic																			1 2.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Dilatation																			1 3.0
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Angiectasis																			1 2.0
Basophilic Focus									X										1
Bile Duct, Hyperplasia		2			2	1			1		1				1				10 1.3
Centrilobular, Necrosis																			1 3.0
Cyst Multilocular														X					1
Eosinophilic Focus																			1
Hematopoietic Cell Proliferation													1						3 1.7
Infiltration Cellular, Lymphocyte			1																1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:54
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	4	7	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	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	0	0	0	0	0	0	0	0
	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7
	1	5	6	6	1	1	1	6	6	6	6	1	1	1	6	6	1	1	6	6
	6	3	8	9	3	4	5	1	2	3	4	4	5	6	1	2	8	9	8	8
	*TOTALS																			
Inflammation, Chronic Active							1						1				1			
Periportal, Inflammation, Chronic				1	1					1	1					1				
Tension Lipidosis																				
Vacuolization Cytoplasmic							1	3	2				2							
Oral Mucosa																+				
Keratin Cyst																X				
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration		1			3	1	2				2			2			3	3	4	
Artery, Mineralization																				
Lipomatosis							2													
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Artery, Mineralization																				
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema																				
Inflammation																				
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Glands, Dilatation													3							
Mineralization																				
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Mineralization																				
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Female
F1 10 PPB

CAS Number: 57-63-6

Lab: NCTR

Page 262

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:54
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 10 PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
	6	4	7	7	7	7	7	8	8	8	1	1	1	1	2	2	2	2	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7
	1	5	6	6	1	1	1	6	6	6	6	1	1	1	6	6	1	1	6	6
	6	3	8	9	3	4	5	1	2	3	4	4	5	6	1	2	8	9	8	8
	*TOTALS																			
Tissue NOS	1																			
Genital System																				
Clitoral Gland	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy			3	3																4 2.5
Duct, Dilatation			3	3			2		2							2				10 2.3
Duct, Hyperplasia, Squamous												2								2 2.0
Hyperplasia											2									2 2.0
Inflammation	1		1	1	1	2	2	2	2				2	3		2		2	3	32 2.1
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy	2	4	2	4	1	4	2	2	2	3	4	4	3	4	4	2		4	3	46 3.2
Corpus Luteum, Cyst			X																	1
Cyst		X		X			X						X							17
Hyperplasia, Sertoliform					1				1	1		1				1		2	1	13 1.2
Interstit Cell, Hyperplasia		3				2														2 2.5
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy				2																2 2.0
Endometrium, Hyperplasia		3								2	2									3 2.3
Endometrium, Hyperplasia, Cystic					1						3	1	2	2	2		2			20 1.9
Hyperplasia, Atypical, Focal	1	2				1								2	2				1	16 1.4
Metaplasia, Squamous		1												2	1					8 1.4
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:54
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	6	4	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7
	1	5	6	6	1	1	1	6	6	6	6	1	1	1	6	6	1	1	6	6
	6	3	8	9	3	4	5	1	2	3	4	4	5	6	1	2	8	9	8	8
	*TOTALS																			
Inflammation	1																			
Mucocyte, Hyperplasia	3		2		2	3	2	3	2	1	3		2	2	2	3	3	3	2	
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Lymph Node			+										+	+				+	+	6
Lumbar, Degeneration, Cystic			3											3				2		3 2.7
Lumbar, Hyperplasia, Lymphoid			3															2	3	3 2.7
Lumbar, Infiltration Cellular, Plasma Cell			2										3					4	3	5 2.8
Mediastinal, Hemorrhage												2								1 2.0
Popliteal, Degeneration, Cystic																			3	1 3.0
Popliteal, Hyperplasia, Lymphoid																		2	2	2 2.0
Popliteal, Infiltration Cellular, Plasma Cell																		3	4	2 3.5
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Degeneration, Cystic					2	2			2							2				8 2.0
Hyperplasia, Lymphoid	2		2		2		2	2						2	2					11 2.0
Infiltration Cellular, Plasma Cell	2	2		3	2	3	2	2	2		2	2	2	3	2	3	3	2	3	43 2.3
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	47
Degeneration, Cystic																				1 2.0
Hyperplasia, Lymphoid																				1 2.0
Infiltration Cellular, Plasma Cell																				1 3.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hematopoietic Cell Proliferation			2	2						2		2								10 2.1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:55
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 10 PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	6	4	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	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	0	0	0	0	0	0	0	0
	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7
	1	5	6	6	1	1	1	6	6	6	6	1	1	1	6	6	1	1	1	6
	6	3	8	9	3	4	5	1	2	3	4	4	5	6	1	2	8	9	8	8
	*TOTALS																			
Pigmentation	1	1	2	3	2	3	1				3		3	1	1	3	2		1	34
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Cyst	X		X	X	X		X	X	X		X		X	X			X			21
Integumentary System																				
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Alveolus, Hyperplasia	2	2	2	3	2	2	3	2	1	2	1	4	2	2	3	2	3	2		42
Atypical Focus				1	1	1	1	1	1	1	2		3		1	2	1	2		21
Galactoceles											X									4
Lactation	1				2	2				1	2	2	2	2	2	2	2		2	31
Lobules, Hyperplasia																				1
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation			4			4		4	4	4		3					4	4		9
Musculoskeletal System																				
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Fibrous Osteodystrophy																				1
Skeletal Muscle																				1
Head, Hyalinization, Focal																				1
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Compression	3		3		2						2		3				2			23
Hemorrhage				2																1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:56:55

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1 10 PPB

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:55
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 10 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	6	4	7	7	7	7	7	8	8	8	1	1	1	1	2	2	2	2	2	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	0	0	0	0	0	0	0	0
	4	4	4	4	5	5	5	5	5	5	5	6	6	6	6	6	7	7	7	7
	1	5	6	6	1	1	1	6	6	6	6	1	1	1	6	6	1	1	6	6
	6	3	8	9	3	4	5	1	2	3	4	4	5	6	1	2	8	9	8	8
	*TOTALS																			
Bilateral, Retina, Degeneration																				1 2.0
Cataract													X							1
Retina, Degeneration	2		2	2														2		5 1.8
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia										1							2			4 1.5
Infiltration Cellular, Lymphocyte															1					2 1.0
Inflammation	2	1		1							1					1				10 1.1
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Cyst									X						X			X		8
Degeneration, Muroid	1																			1 1.0
Hydronephrosis																				1 3.0
Mineralization			3	1	2	2	2	1		1	1	1	2	2	2	1	2	2		27 1.7
Nephropathy				1	1				1		1		1	1			1			18 1.3
Polycystic Kidney																				1 4.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:56:59
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:59
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 50 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7
	2	2	2	2	2	6	6	6	7	2	2	2	6	6	6	6	7	2	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	0
*TOTALS																			

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage																			1 2.0
Inflammation																			1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																			1 3.0
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Autolysis																			1 3.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	47
Autolysis																			1 3.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																			1 2.0
Basophilic Focus											X								1
Bile Duct, Hyperplasia	1					1			1					1	1	1			10 1.2
Degeneration, Cystic																	2		2 1.5
Eosinophilic Focus									X									X	5
Hematopoietic Cell Proliferation																			1 2.0
Hepatodiaphragmatic Nodule																			1
Infiltration Cellular, Lymphocyte				1															1 1.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:56:59
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 50 PPB**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	6	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7
	2	2	2	2	2	6	6	6	7	2	2	2	6	6	6	6	7	2	7	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	7	0
	*TOTALS																			
Inflammation, Chronic Active										1										5 1.0
Periportal, Inflammation, Chronic		1					1	1					1							5 1.0
Tension Lipidosis																				1
Vacuolization Cytoplasmic																				2 2.0
Mesentery																				1
Fat, Necrosis																				1 2.0
Oral Mucosa		+											+							4
Gingival, Inflammation		3																		1 3.0
Keratin Cyst		X												X						2
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Acinar Cell, Degeneration				2			2	2	1		2	2		2	2	1		1	1	24 1.8
Acinar Cell, Hyperplasia																				1 1.0
Inflammation, Chronic																				1 2.0
Lipomatosis												3								2 3.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Edema																				2 3.0
Hyperplasia																				1 2.0
Ulcer																				1 3.0
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																				1 1.0

Cardiovascular System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 50 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	6	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7
	2	2	2	2	2	6	6	6	6	7	2	2	2	6	6	6	6	7	2	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	7	0
	*TOTALS																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy	1									1		1	1			2				12 1.3
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																				2 2.0
Cyst																				1 4.0
Degeneration, Cystic	3	2	2	2	2	3	2	2	3	3	1	3	3	3	3	2	3	3	3	45 2.5
Hematopoietic Cell Proliferation																				1 2.0
Hypertrophy							2			2				2						7 2.3
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Parathyroid Gland	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	43
Hyperplasia																				1 2.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Cyst																				1
Pars Distalis, Hyperplasia																2				2 2.0
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C Cell, Hyperplasia					2															4 2.0
Follicular Cel, Hyperplasia					1															1 1.0
Inflammation, Chronic																				2 1.0
Ultimobranchial Cyst		3	2												2					5 2.2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 50 PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7
	2	2	2	2	2	6	6	6	7	2	2	2	6	6	6	6	7	2	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	0
	*TOTALS																		

General Body System

NONE

Genital System

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																			2 1.5
Duct, Dilatation				3	2	3				3									9 2.6
Inflammation	3	3		3	3	2	2	2		2	1			2	2	2		2	28 2.3
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	2	4	4	3	2	4	2		4	3	4	2	4	4	4	4	4	3	46 3.3
Corpus Luteum, Cyst								X		X									2
Cyst				X	X	X			X	X	X		X				X	X	22
Granulosa Cell, Hyperplasia																3			1 3.0
Hyperplasia, Sertoliform	1	2	1	1	2		2					2	2	3	2		2	1	23 1.7
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Endometrium, Hyperplasia				2			2						4	2	3			4	12 2.5
Endometrium, Hyperplasia, Cystic				2	2				2		2	2	2			2		2	17 2.0
Hyperplasia, Atypical, Focal	1	1	2	1	2	2							2	1	2	2			20 1.6
Inflammation																			1 1.0
Metaplasia, Squamous			2	2			2		2				1		1				13 1.6
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Inflammation		2			1							2		2		2			17 1.8

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:00
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 50 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	2	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7
	2	2	2	2	2	6	6	6	6	7	2	2	2	6	6	6	6	7	2	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	2	0
	*TOTALS																			
Mucocyte, Hyperplasia	3	2	3	2	3		2	3	3	3	3		1	1				3	3	
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Lymph Node				+			+									+	+	+		10
Deep Cervical, Hyperplasia, Lymphoid																				1 2.0
Deep Cervical, Infiltration Cellular, Plasma Cell																				1 2.0
Lumbar, Degeneration, Cystic				3			3								2	2				5 2.4
Lumbar, Hyperplasia, Lymphoid															2	2				3 2.0
Lumbar, Infiltration Cellular, Plasma Cell				3			3								3	3				5 3.0
Mediastinal, Hemorrhage																				1 3.0
Mediastinal, Pigmentation																				1 3.0
Pancreatic, Hemorrhage																	2			1 2.0
Pancreatic, Pigmentation																	2			1 2.0
Popliteal, Degeneration, Cystic				3																1 3.0
Popliteal, Infiltration Cellular, Plasma Cell				4																1 4.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic	3		2	3	2												4			8 2.4
Hyperplasia, Lymphoid										2										5 2.2
Infiltration Cellular, Plasma Cell	2	2	2	2	3	3	2		2	3		2	3	3	1	3		2	3	39 2.3
Inflammation, Suppurative																				1 2.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:00
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1 50 PPB**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7
	2	2	2	2	2	6	6	6	7	2	2	2	6	6	6	6	7	2	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	0
	*TOTALS																		
Degeneration, Cystic																		2	1 2.0
Depletion Lymphoid												3							1 3.0
Hemorrhage					2										2				2 2.0
Hyperplasia, Lymphoid																			2 2.0
Infiltration Cellular, Plasma Cell									2										1 2.0
Sinus, Dilatation												4							1 4.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hematopoietic Cell Proliferation								2											6 2.0
Pigmentation	2	1	2	3		3	2	1	3	1	2	2	2	3	1	1	1	3	3
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Cyst		X		X	X		X										X		17
Hemorrhage																			1 3.0
Integumentary System																			
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolus, Hyperplasia	3		3	2	3	2	3	3	3	1	2	2	2	2	2	2	3		40 2.2
Atypical Focus	2	1	2	2	1			1				2		2	1	2	1	3	23 1.6
Duct, Dilatation									2					3					4 2.8
Galactoceles				X							X								6
Lactation			2	2	1	2		3	2		2	2	1		2	3	2		30 2.0
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation				4						4									7 3.1
Musculoskeletal System																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:01
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1 50 PPB

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	5	5
	7	7	7	7	7	8	8	8	8	1	1	1	2	2	2	2	2	2	6	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
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7
	2	2	2	2	2	6	6	6	7	2	2	2	6	6	6	6	7	2	7	7
	0	1	2	3	4	7	8	9	0	1	2	3	6	7	8	9	0	2	7	0
	*TOTALS																			
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																				1
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression			3	2					2		3	3		3				2	2	26 2.5
Hemorrhage													1							1 1.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus			1																	2 1.5
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus																		2		5 1.8
Respiratory System																				
Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar Epith, Hyperplasia					2															1 2.0
Artery, Mineralization															2	2				3 1.7
Hemorrhage																				2 2.0
Infiltration Cellular, Histiocyte	3				2				2		1	2		2	2	2				16 1.8
Infiltration Cellular, Lymphocyte										1										1 1.0
Inflammation																				3 2.0
Perivascular, Inflammation																			1	1 1.0
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Foreign Body																				1
Inflammation																				2 2.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:01
First Dose M/F: NA / NA
Lab: NCTR

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

1 3.0

Page 285

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:01
First Dose M/F: NA / NA
Lab: NCTR

[illegible]

Page 286

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:02
First Dose M/F: NA / NA
Lab: NCTR

Page 287

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:03

First Dose M/F: NA / NA

Lab: NCTR

**CD Rat Female
F1/2PPB TO CTL**

CD Rat Female F1/2PPB TO CTL	DAY ON TEST	0 0 8 7	0 4 0 6	0 4 5 2	0 5 0 3	0 5 0 9	0 5 1 5	0 5 1 4	0 5 3 0	0 5 3 8	0 5 4 2	0 5 6 9	0 5 9 2	0 6 1 7	0 6 1 8	0 6 2 0	0 6 3 2	0 6 3 4	0 6 6 1	0 6 6 6	0 6 7 0	0 6 7 3	0 6 7 5	0 6 8 3	0 6 8 9	0 7 2 5	0 7 2 5	0 7 3 9	0 7 3 0	0 7 3 7	0 7 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	0	0	0	0	0	0	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	3	3	3	3	3						
		0	3	4	6	6	7	7	7	8	8	0	3	4	6	6	6	7	8	2	3	3	3	4	5	7	7	3	4	5	6	7						
	3	6	5	5	6	3	4	8	0	4	6	3	2	3	4	5	8	1	0	5	7	9	8	6	0	3	9	1	2	6	7							
Hyperplasia, Sertoliform Interstit Cell, Hyperplasia		1		2		1		1																2		2		2		2								
Oviduct Pigmentation		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
Uterus Atrophy		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
Endometrium, Hyperplasia		2																																				
Endometrium, Hyperplasia, Cystic		2				1		2				2		2				2		2				1	2	3	1	2		2								
Hyperplasia, Atypical, Focal Hypoplasia		3												1																								
Inflammation		1				2												1																				
Metaplasia, Squamous		2																				1																
Vagina Hemorrhage		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
Inflammation		2				2		3				1				3		2		4				1	1		2		2									
Mucocyte, Hyperplasia		3		2				3		3				2		2		2		3		2		1		3		2		3		1						
Hematopoietic System																																						
Bone Marrow Myeloid Cell, Hyperplasia		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+							
Lymph Node Degeneration, Cystic		2	2																																			
Infiltration Cellular, Plasma Cell		+																											+		+		+		+		4	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

I ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:04
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F1/2PPB TO CTL

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

Inguinal, Infiltration Cellular, Plasma Cell																																
Lumbar, Degeneration, Cystic																				3								2		4		
Lumbar, Hemorrhage																																
Lumbar, Hyperplasia, Lymphoid	3																															
Lumbar, Infiltration Cellular, Plasma Cell																													2			
Pancreatic, Hyperplasia, Lymphoid																																
Renal, Hyperplasia, Lymphoid	3																															
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic				1																2	2											
Hyperplasia, Lymphoid	3																	2			2								2			
Infiltration Cellular, Plasma Cell	3		2				2		2	2	2	2		3	2	2	2	3	3	2	3	2	2	2	1		2	3	2	3	2	
Inflammation, Suppurative																					2											
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Degeneration, Cystic																																
Depletion Lymphoid																											3					
Hemorrhage																																
Hyperplasia, Lymphoid	2															2					2											
Infiltration Cellular, Plasma Cell																																
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hematopoietic Cell Proliferation											1					2			2	2		2					3					
Pigmentation				3		3	2		3	2					2		2	3			1		1		1	2		1	2		3	2
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	M	M	+	+	+	+	+	M	M	+	M	+	+	+	+	+	+	+	+	
Cyst				X	X							X								X							X	X				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:04
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1/2PPB TO CTL	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	4	4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	
		8	0	5	0	0	1	1	3	3	4	6	9	9	1	1	2	3	3	6	6	7	7	7	8	8	8	2	2	3	3	3	3
		7	6	2	3	9	5	4	0	8	2	9	2	7	8	8	0	2	4	1	6	0	3	5	3	9	5	5	9	0	7	6	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	0	0	0	0	0	0	0	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	3	3	3	3	3	
	0	3	4	6	6	7	7	7	8	8	0	3	4	6	6	7	8	2	3	3	3	4	5	7	7	3	4	5	6	6	7	7	
	3	6	5	5	6	3	4	8	0	4	6	3	2	3	4	5	8	1	0	5	7	9	8	6	0	3	9	1	2	6	7	7	
Hemorrhage		3																															
Hyperplasia, Lymphoid		2																															
Inflammation, Chronic	2																																
Integumentary System																																	
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Alveolus, Hyperplasia		1	1	2			2		2		2	2			2	2	3	2	2	2			2		4		3	3	2	2			
Atypical Focus												2					2							2				2					
Galactocele														X														X					
Lactation				2		2	2			2	2	2			2	1	3	3	2	2			2		3	2			2	2	2		
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cyst Epithelial Inclusion																																	
Hyperkeratosis																																	
Inflammation		4		1							2	4							3		3				4					3	4		
Musculoskeletal System																																	
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Nervous System																																	
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression				3			3			3	1	4				2	2		3	3			3	3	2	3	3		3	3			
Hemorrhage							2																										
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hemorrhage																																	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue

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

1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:05
First Dose M/F: NA / NA
Lab: NCTR

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

Page 293

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:05

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1/2PPB TO CTL

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

Special Senses System

[illegible]

Urinary System

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:05
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																			1 4.0
Necrosis																			1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Dilatation												2							1 2.0
Erosion																			1 3.0
Inflammation, Chronic																			1 2.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis							2												2 1.5
Basophilic Focus																			1
Bile Duct, Hyperplasia							2			2		1		2			2		7 1.7
Capsule, Hemorrhage, Focal								2											1 2.0
Cyst		X															X		2
Cyst Multilocular		X																	2
Degeneration, Cystic						3			2										3 2.3
Eosinophilic Focus			X	X															2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:06
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/2PPB TO CTL

CD Rat Female F1/2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
		8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7
		9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6
		6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7
Hematopoietic Cell Proliferation																				2 1.5
Hepatodiaphragmatic Nodule																				2
Inflammation, Chronic Active	4																			3 2.0
Median Lobe, Developmental Malformation						X														1
Necrosis	2																			2 2.5
Oval Cell, Hyperplasia	3																			1 3.0
Periportal, Inflammation, Chronic												1		1						3 1.7
Vacuolization Cytoplasmic					2				2			3				2			2	9 2.0
Mesentery																				2
Cyst																				1
Fat, Necrosis																				2 3.0
Oral Mucosa			+									+								5
Keratin Cyst												X								2
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration			3	2	2	1	1				1	2				1		2	2	19 1.6
Inflammation, Chronic																				1 4.0
Lipomatosis										2										1 2.0
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic		3																		2 3.0
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Edema										2			3							3 2.3
Hyperplasia						2							3							4 2.3
Inflammation													2							2 2.5

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:06
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7	7
	*TOTALS																			
Keratin Cyst	1																			
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Infiltration Cellular, Lymphocyte	1 2.0																			
Inflammation	1 2.0																			
Tooth	1																			
Dysplasia	1 3.0																			
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Mineralization	1 1.0																			
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy	22 1.3																			
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis	1 1.0																			
Atrophy	1 2.0																			
Degeneration, Cystic	3	4	4	3	2	3	2	3	3	2	2	4	2	2	3	4	3	3	1	43 2.7
Hypertrophy	2 2.0																			
Adrenal Medulla	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia	1 1.0																			
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia	1 1.0																			
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	M	46

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:06
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	1	6	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7	7	7
	*TOTALS																				
Hyperplasia																					1 2.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pars Distalis, Cyst																					1
Pars Distalis, Hyperplasia																	2				2 2.0
Pars Intermed, Cyst																					1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Follicular Cel, Hyperplasia				3																	1 3.0
Infiltration Cellular, Lymphocyte									1												1 1.0
Ultimobranchial Cyst						2															1 2.0
General Body System																					
NONE																					
Genital System																					
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy															2						3 2.3
Duct, Dilatation	2	3		2	2		2					3	2	2							17 2.3
Duct, Hyperplasia, Squamous									1												1 1.0
Infiltration Cellular, Lymphocyte									2												1 2.0
Inflammation	2	2	1	1	2	2	4	2			3	3			2	3	2		2		32 2.0
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	4	4	4	4	4	4	4	1	4	4	4	3	2	2	2	4	2	4	2		46 3.2
Corpus Luteum, Cyst																					1
Cyst					X		X		X	X				X	X						12

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:06
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	1	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7	7
	*TOTALS																			
Hyperplasia, Sertoliform	3	2		1		2				1		2	1	1		1	1	2	1	20
Interstitial Cell, Hyperplasia	3											2								2
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Pigmentation																				1
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																				1
Endometrium, Hyperplasia										1							2			2
Endometrium, Hyperplasia, Cystic	1	3	2	1		2	2		2	2						3	2			23
Hyperplasia, Atypical, Focal		2		1	2	1	2	1	1				1					1		10
Hypoplasia																				1
Inflammation																				3
Metaplasia, Squamous				2	1	1			2											6
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage																				1
Inflammation	2			1				1		4							2		1	17
Mucocyte, Hyperplasia	2	2	3		2	2	3	1	3	3		3	2	2	3	3	2	2	2	33
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Myeloid Cell, Hyperplasia																				2
Lymph Node	+	+		+	+						+		+		+			+	+	15
Degeneration, Cystic													2							1
Infiltration Cellular, Plasma Cell				4									2							3

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:07
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/2PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7	7
	*TOTALS																			
Inguinal, Infiltration Cellular, Plasma Cell															4				1	4.0
Lumbar, Degeneration, Cystic		3		3										3			3		7	3.0
Lumbar, Hemorrhage	3																		1	3.0
Lumbar, Hyperplasia, Lymphoid										2				3			3		4	2.8
Lumbar, Infiltration Cellular, Plasma Cell	3	3		3						2							3	3	7	2.7
Pancreatic, Hyperplasia, Lymphoid					2														1	2.0
Renal, Hyperplasia, Lymphoid																			1	3.0
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic	2	2						2	2					2					8	1.9
Hyperplasia, Lymphoid		2					2	2		2		1	3						10	2.1
Infiltration Cellular, Plasma Cell	3	3	3	2	2	2	2	2	3		2	2			3	2	2	2	40	2.3
Inflammation, Suppurative																			1	2.0
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic														2					1	2.0
Depletion Lymphoid																			1	3.0
Hemorrhage	2																		1	2.0
Hyperplasia, Lymphoid																			3	2.0
Infiltration Cellular, Plasma Cell		2																	1	2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hematopoietic Cell Proliferation	2				2				2	1		2				1	1		13	1.8
Pigmentation	2	2				2	1				2	2	1	1		1	1	1	28	1.8
Thymus	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	44	
Cyst	X						X	X	X				X				X		13	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:07
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2	2
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7	7
	*TOTALS																			
Hemorrhage																				
Hyperplasia, Lymphoid																				
Inflammation, Chronic																				
Integumentary System																				
Mammary Gland																				
Alveolus, Hyperplasia	1	2	4			2	2	3	2	2	4	2	2	2	3	1	3	4	3	
Atypical Focus		1	2			1		2		2		2		1		4		3		
Galactoceles					X															
Lactation	1	1		2		1	2	2	2	2	2	2					1			
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst Epithelial Inclusion					X															
Hyperkeratosis																	2			
Inflammation	4		4	4	4		4	4	4		4	3		4	4	4		4	4	
Musculoskeletal System																				
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Nervous System																				
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Compression	3		3				3	2	2		3							3		
Hemorrhage	1																			
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hemorrhage	1																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:07
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

CD Rat Female F1/2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7												
		4	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6												
		8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2												
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0											
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0												
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7	7												
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	1	6												
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7		*TOTALS											
Hydrocephalus																					2										3	1.7
Brain, Cerebrum		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Hemorrhage		2																													1	2.0
Hydrocephalus																														3	2.0	
Respiratory System																																
Lung		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Alveolar Epith, Hyperplasia																														1	1.0	
Artery, Mineralization																					1		1	2						3	1.3	
Autolysis																														1	2.0	
Hemorrhage		1																												1	1.0	
Infiltration Cellular, Histiocyte																					2		2	2			1		2	7	1.9	
Inflammation		2																										1		3	1.3	
Peribronchial, Inflammation, Chronic																														1	3.0	
Perivascular, Inflammation																							2							1	2.0	
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Goblet Cell, Hyperplasia		2																												1	2.0	
Inflammation																					2					2	2		3	9	2.1	
Nasolacrim Dct, Inflammation		2	1		2	2			2			1			2	2	2	2	2		25	1.8										
Respirat Epith, Hyaline Droplet																							2						1	2.0		
Respirat Epith, Hyperplasia																					1								1	1.0		
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50											
Inflammation																													1	1.0		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:08
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6
	8	6	6	6	2	7	7	7	7	8	7	1	2	2	3	3	2	2	2
ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	3	4	4	4	4	4	4	4	5	5	6	6	6	6	7	7	7	7	7
	9	1	1	1	5	6	6	6	1	6	0	1	5	6	1	1	1	1	6
	6	2	3	4	0	5	6	7	2	0	3	3	9	0	4	5	6	7	7
	*TOTALS																		

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Bilateral, Cataract																			2
Bilateral, Retina, Degeneration								2											1 2.0
Cataract											X								2
Retina, Autolysis																			2 4.0
Retina, Degeneration				2	1														2 1.5
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Epithelium, Degeneration																	1		1 1.0
Hyperplasia	2																		2 1.5
Infiltration Cellular, Lymphocyte															1				2 1.5
Inflammation			1		1			1								1			7 1.1

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst	X							X		X			X	X	X		X		11
Degeneration, Muroid																			1 2.0
Inflammation																			1 3.0
Mineralization	2			2			2	3	2	2	2	3	3	3			2		30 2.1
Nephropathy	2	1	2	1		2		1		2		1	1		1	1	1		19 1.3
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:08
First Dose M/F: NA / NA
Lab: NCTR

ANIMAL ID

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

Alimentary System

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:09

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

DAY ON TEST

ANIMAL ID

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

Mesentery

Oral Mucosa

Keratin Cyst

Pancreas

Acinar Cell, Degeneration

Acinar Cell, Hyperplasia

Artery, Inflammation, Chronic

Lipomatosis

Salivary Glands

Inflammation, Chronic

Stomach, Forestomach

Ulcer

Stomach, Glandular

Cardiovascular System

Blood Vessel

Heart

Cardiomyopathy

Endocrine System

Adrenal Cortex

Angiectasis

Degeneration, Cystic

Hematopoietic Cell Proliferation

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:09
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1/10PPB TO CTL	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	
		2	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	7	9	1	1	3	4	6	6	1	3	3	4	4	6	7	8	0	0	1	1	1	2	3	3	3	4	4	5	5	5
		4	7	1	0	9	7	6	1	6	2	2	9	1	6	8	4	7	1	2	5	4	7	4	0	7	8	8	8	6	6	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	3	3	3	3	3	3	3	3	3	4	4	4	
	1	5	5	6	7	8	8	0	0	5	7	8	8	9	3	4	6	9	9	1	2	2	3	5	7	7	9	9	1	1	7	
	5	3	8	7	5	2	6	2	5	4	7	5	6	6	2	5	6	2	3	8	0	7	3	4	0	8	2	3	7	8	0	
Duct, Hyperplasia, Squamous																																
Hyperplasia																																
Inflammation					2	3			2	3	1	2		1		2		2	3		3	3	2		2	3			2			
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy				3	2	2	3	3	3	1	3	1	4	3	4	2	4	4	4		2		4	4	2	2	4	2	4	4	3	4
Cyst				X	X								X		X				X	X	X	X			X	X	X	X				
Hyperplasia, Sertoliform	2			1	2		1	1	1														2						4	1	2	
Interstitial Cell, Hyperplasia																			3												3	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy	2																			2												
Cervix, Hyperplasia																													2			
Endometrium, Hyperplasia																														1		
Endometrium, Hyperplasia, Cystic								2		3														2				2	1	3		
Hyperplasia, Atypical, Focal				1						1							1											2	2	2		
Inflammation																		2														
Metaplasia, Squamous										1			1				1									1						
Vagina	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	
Inflammation						3		2	3			2			2	2		1	2	3				3			1					
Mucocyte, Hyperplasia				3			3	1		3	3	3		2		3		3			3		1				4	2	2	4	2	
Hematopoietic System																																
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:10
First Dose M/F: NA / NA
Lab: NCTR

**CD Rat Female
 F1/10PPB TO CTL**

CD Rat Female F1/10PPB TO CTL	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		
		2	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7		
	ANIMAL ID	4	7	1	0	9	7	6	1	6	2	2	9	1	6	8	4	7	1	2	5	4	7	4	0	7	8	8	8	6	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	0	
	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4
1	5	5	6	7	8	8	8	0	0	5	7	8	8	9	3	4	6	9	9	1	2	2	3	5	7	7	9	9	1	1	7
5	3	8	7	5	2	6	6	2	5	4	7	5	6	6	2	5	6	2	3	8	0	7	3	4	0	8	2	3	7	8	0
Pigmentation						3	3	2	2	1		2						2	2	2				2		3	2		1		1
Thymus	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst						X								X	X					X		X			X	X	X			X	
Integumentary System																															
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolus, Hyperplasia					2	1		2	2	1	1	1	2	1	2	2	2	3	2	2	3	2	3	4	3	1	4	3	3	3	2
Atypical Focus								2								1	2	2			3			1	2			3	1		
Duct, Dilatation																															
Galactocele						X										X															
Lactation					2	1		2	1	2		2	2	2		2	2	2	1	2	2				2	1		2	3	1	2
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation			4					2					3	4								4	4	4	4	4		4		4	
Musculoskeletal System																															
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Osteopetrosis												2																			
Skeletal Muscle										+						+											+	+			
Nervous System																															
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression						3	2	3	3	3		4	2			4		3		3		2	1			3	3	3			
Hemorrhage																															
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:10

First Dose M/F: NA / NA

Lab: NCTR

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:11
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	1	1	1	1	2	2	2	3	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7
	7	7	7	1	1	1	1	6	6	1	1	1	2	6	6	6	2	2	6
	1	2	3	6	7	8	9	5	6	7	8	9	0	3	4	5	0	1	9
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																			2 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis							2												4 2.0
Basophilic Focus																			1
Bile Duct, Hyperplasia				1			1	1		1				2		1	2		16 1.4
Cyst																			2
Cyst Multilocular																			1
Degeneration, Cystic				1			2												5 1.6
Eosinophilic Focus				X					X					X		X			5
Hematopoietic Cell Proliferation																			1 1.0
Infiltration Cellular, Lymphocyte												1							1 1.0
Inflammation, Chronic Active		1																	6 1.0
Periportal, Inflammation, Chronic			1	1			1							1					5 1.0
Vacuolization Cytoplasmic					2			2						1	3		1	2	11 2.2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:11
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	1	1	1	1	2	2	2	3	2	3	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	0	0	0	0	0	0	0	0
	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7
	7	7	7	1	1	1	1	6	6	1	1	1	2	6	6	6	2	2	6	6
	1	2	3	6	7	8	9	5	6	7	8	9	0	3	4	5	0	1	9	9
	*TOTALS																			
Mesentery	+																			
Oral Mucosa	+																			
Keratin Cyst																				
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Acinar Cell, Degeneration	1			1	2	2			3	1	3	2		2	2	1	1		2	
Acinar Cell, Hyperplasia	2																			
Artery, Inflammation, Chronic																				
Lipomatosis	2																			
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation, Chronic																				
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Ulcer																				
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiovascular System																				
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cardiomyopathy	1				1			1	1		1		1			1				
Endocrine System																				
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																				
Degeneration, Cystic	2		3	2	3	3	3	3	3	3	1	2	3	4	2	3	3	2	1	
Hematopoietic Cell Proliferation																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:12

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

CD Rat Female F1/10PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	
		7	7	7	7	7	7	7	8	8	1	1	1	1	1	2	2	2	3	2	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	0	0	0	0	0	0	0	0	
	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	
	7	7	7	1	1	1	1	6	6	1	1	1	1	2	6	6	6	2	2	6	
	1	2	3	6	7	8	9	5	6	7	8	9	0	3	4	5	0	1	1	9	*TOTALS
Hypertrophy		2																			2 2.5
Adrenal Medulla		+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+		48
Hyperplasia																					1 2.0
Islets, Pancreatic		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
Parathyroid Gland		M	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	+	+	44
Pituitary Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
Angiectasis																					2 2.0
Pars Distalis, Cyst																					1
Pars Distalis, Hyperplasia													2		1					3	4 2.0
Pigmentation										3											1 3.0
Thyroid Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50
C Cell, Hyperplasia																					3 2.0
Follicle, Cyst																					1 2.0
Follicular Cel, Hyperplasia																					2 1.5
Inflammation, Chronic												1									1 1.0
Ultimobranhcial Cyst							3														2 2.5
General Body System																					
NONE																					
Genital System																					
Clitoral Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		49
Atrophy																2					1 2.0
Duct, Dilatation					3	4									2				3		9 2.4

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:12
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/10PPB TO CTL**

CD Rat Female F1/10PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																			
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7																			
	ANIMAL ID	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6																			
		7	7	7	7	7	7	7	8	8	1	1	1	1	1	2	2	2	3	2	3																		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
		4	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7																		
		7	7	7	1	1	1	1	6	6	6	1	1	1	2	6	6	6	2	2	6																		
		1	2	3	6	7	8	9	5	6	7	8	9	0	3	4	5	0	1	9																			
																						*TOTALS																	
Duct, Hyperplasia, Squamous																					2			1	2.0														
Hyperplasia																					2			1	2.0														
Inflammation																					1			2	3	1	2		1	2	3	2	3	29	2.2				
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50																		
Atrophy	4	3	2	2	4	4	3	2	2		2	2	2	2	3	2	4	4	4		45	2.9																	
Cyst																					X					X		X						15					
Hyperplasia, Sertoliform	3	1			2	2	3					2		2		1	1				19	1.8																	
Interstit Cell, Hyperplasia																																			2	3.0			
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50																		
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50																		
Atrophy																																				2	2.0		
Cervix, Hyperplasia																																					1	2.0	
Endometrium, Hyperplasia																					2										2	2	2			5	1.8		
Endometrium, Hyperplasia, Cystic	1		3									1		1		2	1				12	1.8																	
Hyperplasia, Atypical, Focal																								2													7	1.6	
Inflammation																									1												2	1.5	
Metaplasia, Squamous																								1														6	1.0
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48																		
Inflammation																							1		1		2									2		15	2.0
Mucocyte, Hyperplasia	1	4	3	1		1	3	2	2	2	3	2	3	3	2	3	2	3			33	2.5																	
Hematopoietic System																																							
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:12
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/10PPB TO CTL**

CD Rat Female F1/10PPB TO CTL	DAY ON TEST	ANIMAL ID																			*TOTALS	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6		
		7	7	7	7	7	7	7	8	8	1	1	1	1	1	2	2	2	3	2		
Pigmentation	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	1.9
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	M	M	+	+	+	+	46		
Cyst		X	X	X	X	X	X	X			X	X				X	X	X	X	22		
Integumentary System																						
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Alveolus, Hyperplasia		3	2	3	2	1	2	3	2	2	3	2	3	3	2	3	1	4		43	2.3	
Atypical Focus			2		1		1	1		3		1	1			2	1	2		19	1.7	
Duct, Dilatation			2																	1	2.0	
Galactoceles						X													X	4		
Lactation		2	2		2	2				2			2			2	1		1	29	1.8	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Inflammation		4			4	2	4	4			4					4	4	3	4	21	3.7	
Musculoskeletal System																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Osteopetrosis																				1	2.0	
Skeletal Muscle																				4		
Nervous System																						
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Compression					2									3				3		18	2.8	
Hemorrhage																		2		1	2.0	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:13

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:13
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/10PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	7	7	8	8	1	1	1	1	2	2	2	3	2	3	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	0	0	0	0	0	0	0	0
	4	4	4	5	5	5	5	5	5	6	6	6	6	6	6	6	7	7	7	7
	7	7	7	1	1	1	1	6	6	1	1	1	2	6	6	6	2	2	6	6
	1	2	3	6	7	8	9	5	6	7	8	9	0	3	4	5	0	1	9	9
	*TOTALS																			
Cataract																				
Retina, Degeneration																				
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia																				
Infiltration Cellular, Lymphocyte																				
Inflammation																				
Urinary System																				
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Hydronephrosis																				
Cyst																				
Degeneration, Muroid																				
Epithelium, Pelvis, Hyperplasia																				
Hydronephrosis																				
Mineralization	1	2	2	1	2	2	2	3	1	1	1	2	2	2	1	1	3	2		
Nephropathy	1	1	1		1	1	2	1	1	1			1			1				
Renal Tubule, Accumulation, Hyaline Droplet																				
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Inflammation																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:13
First Dose M/F: NA / NA
Lab: NCTR

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

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																				2								
Basophilic Focus								X																	X			
Bile Duct, Hyperplasia																		1										
Caudate Lobe, Developmental Malformation																												
Cyst Multilocular																												
Degeneration, Cystic																												
Eosinophilic Focus																		X										
Eosinophilic Focus, Multiple																												
Hematopoietic Cell Proliferation	1																								1			
Hepatodiaphragmatic Nodule															X													
Infiltration Cellular, Lymphocyte																												
Inflammation, Chronic Active							1							1													1	
Left Lat Lobe, Developmental Malformation																				X								

Page 320

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:14
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F1/50PPB TO CTL	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	
		4	4	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	
		0	9	1	6	7	9	9	1	2	3	4	5	5	6	6	8	9	9	9	9	0	0	1	2	2	3	3	4	4	5	5	5
		4	5	1	1	4	3	8	7	0	2	5	2	3	5	7	9	5	6	8	1	2	5	4	8	6	8	2	6	6	6	6	7
	ANIMAL ID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	4	4	
	3	6	7	0	1	1	3	4	6	6	7	8	0	2	2	2	2	7	8	8	8	9	0	2	3	5	6	7	8	9	2	2	7
	5	0	1	1	1	0	4	1	6	1	9	8	1	2	8	2	0	3	8	5	0	1	5	0	3	6	2	1	2	3	7	7	
Mixed Cell Focus																																	
Periportal, Inflammation, Chronic																																1	
Vacuolization Cytoplasmic						2					2				2							2	2										
Oral Mucosa						+				+				+																	+		
Keratin Cyst						X								X																	X		
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration					2	2	2				2			3	3	1		2			3		2	1				2	1		1		
Inflammation, Chronic																1																	
Lipomatosis																																	
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Inflammation, Chronic						3																											
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema						2																											
Inflammation														3																			
Keratin Cyst																																	
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiovascular System																																	
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy					2	2	2					1			1	1	1	1	1	2			1			2		1		1			
Endocardium, Hyperplasia																																	
Endocrine System																																	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Female
F1/50PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

Page 322

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:15
First Dose M/F: NA / NA
Lab: NCTR

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:15
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F1/50PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:16
First Dose M/F: NA / NA
Lab: NCTR

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

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:17
First Dose M/F: NA / NA
Lab: NCTR

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

Urinary Bladder

2

2

+ + + + + A + + + + +

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:17
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	2	7	7	7	7	2	2	7	7
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	1	1
*TOTALS																				

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis	2			2													3	2.0			
Basophilic Focus											X	X			X	X				6	
Bile Duct, Hyperplasia	1					1		2	2							2	1	1	8	1.4	
Caudate Lobe, Developmental Malformation											X									1	
Cyst Multilocular	X																			1	
Degeneration, Cystic													2							1	2.0
Eosinophilic Focus							X											X			3
Eosinophilic Focus, Multiple											X									1	
Hematopoietic Cell Proliferation													1							3	1.0
Hepatodiaphragmatic Nodule																				1	
Infiltration Cellular, Lymphocyte	1															1			2	1.0	
Inflammation, Chronic Active															1					4	1.0
Left Lat Lobe, Developmental Malformation																				1	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/50PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	2	7	7	7	7	2	2	7
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	1
	*TOTALS																		
Mixed Cell Focus																X			1
Periportal, Inflammation, Chronic								1											2 1.0
Vacuolization Cytoplasmic		3	2			2				2		2			1	2		2	13 2.0
Oral Mucosa																			4
Keratin Cyst																			3
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration		2	2	2					1				2	3	2	2	1		23 1.9
Inflammation, Chronic																	1		2 1.0
Lipomatosis						2													1 2.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic																			1 3.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Edema																			1 2.0
Inflammation																			1 3.0
Keratin Cyst															X				1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiovascular System																			
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cardiomyopathy			1			1		1		1	1	1	1	1	1	3		2	26 1.3
Endocardium, Hyperplasia		2																	1 2.0
Endocrine System																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:17
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/50PPB TO CTL**

CD Rat Female F1/50PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	*TOTALS
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
		5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6			
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7		
	7	7	2	2	2	7	7	2	2	2	2	2	2	7	7	7	7	2	2	7	
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	4	1	
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Angiectasis																				1	1.0
Atrophy										2										1	2.0
Degeneration, Cystic	2	2	3	2	2	3	2	3	1		1		2	2	2	2	3	1	2	42	2.2
Hyperplasia																				1	2.0
Hypertrophy									2		2						2			5	1.8
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Hyperplasia																				2	1.5
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Angiectasis																				1	1.0
Pars Distalis, Cyst																				2	
Pars Distalis, Hyperplasia																				1	2.0
Pars Intermed, Cyst																				1	
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
C Cell, Hyperplasia		2		2															4	4	3.0
Inflammation, Chronic																				1	2.0
Ultimobranchial Cyst													3					3		2	3.0

General Body System

NONE

Genital System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:18
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/50PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3	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	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	2	7	7	7	7	2	2	7	7
	8	9	5	6	2	1	2	4	5	6	7	8	1	2	3	4	3	4	1	1
	*TOTALS																			
Clitoral Gland	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy																				2 2.5
Duct, Dilatation				3				3	2											9 2.3
Duct, Hyperplasia, Squamous	2							2			3						3			5 2.4
Hyperplasia																				3 2.0
Inflammation	3			2	1	2	3	2	2	3	3	4				2	3	3		34 2.1
Keratin Cyst																		X		2
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy		2	2	4	4	2	3		2	2	4	2	2	2	4	3	2	4	2	42 2.9
Corpus Luteum, Cyst																				2
Cyst	X			X	X	X	X		X			X	X			X			X	17
Hyperplasia, Sertoliform		2	3		1	2	1	1		2	2	1	2	2	2	1	2	2	3	28 1.7
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cervix, Muscularis, Hypertrophy							X													1
Endometrium, Hyperplasia				2														2		4 1.8
Endometrium, Hyperplasia, Cystic				2		2					2	4	2		3	2				22 2.2
Hyperplasia, Atypical, Focal				1							1					2				9 1.7
Inflammation																				3 2.7
Metaplasia, Squamous					1															1 1.0
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage																				1 2.0
Inflammation				1		2					2						2		2	18 1.6

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:18
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/50PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	2	7	7	7	7	2	2	7	7
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	1	1
	*TOTALS																			
Mucocyte, Hyperplasia	2	2	2	2	1	2	3		2	3	1	3	4	2		2	2		3	
Hematopoietic System																				
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia																				1 2.0
Myeloid Cell, Hyperplasia																				1 3.0
Lymph Node				+						+	+				+	+	+		+	13
Inguinal, Degeneration, Cystic				2																2 2.0
Inguinal, Hyperplasia, Lymphoid				2																2 2.5
Inguinal, Infiltration Cellular, Plasma Cell				3																2 3.0
Lumbar, Degeneration, Cystic										4	3			2					3	5 3.0
Lumbar, Hyperplasia, Lymphoid										3	2			2	2	3		2		7 2.3
Lumbar, Infiltration Cellular, Plasma Cell										3	3			3	3	3		3		9 2.8
Mediastinal, Hemorrhage																				1 2.0
Mediastinal, Infiltration Cellular, Plasma Cell																3				2 2.5
Popliteal, Infiltration Cellular, Plasma Cell																				1 2.0
Renal, Degeneration, Cystic																3				3 2.7
Renal, Hyperplasia, Lymphoid																2				2 2.0
Renal, Infiltration Cellular, Plasma Cell																3				4 2.8
Lymph Node, Mandibular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic						3	3	2						2	4				2	12 2.3
Hemorrhage																				1 2.0
Hyperplasia, Lymphoid				2						2	2					2				5 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:18
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F1/50PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	7	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	7	7	7	7	2	2	7	7
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	1
*TOTALS																			

Musculoskeletal System

Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																				1

Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression				2			2			2	2									19 2.4
Hydrocephalus																				1 2.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hemorrhage																				1 3.0
Hydrocephalus																				2 1.5
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus				2																3 2.0

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Artery, Mineralization															1					1 1.0
Edema																				1 2.0
Hemorrhage										2										1 2.0
Infiltration Cellular, Histiocyte	2								1		3	2				3				8 2.0
Infiltration Cellular, Lymphocyte																				1 1.0
Inflammation	1																			3 1.7
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:19
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F1/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	6
	7	7	7	7	7	8	8	2	2	1	1	1	2	2	2	2	3	2	3	3
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7
	7	7	2	2	2	7	7	2	2	2	2	2	7	7	7	7	2	2	7	7
	8	9	5	6	7	1	2	4	5	6	7	8	1	2	3	4	3	4	1	1
	*TOTALS																			
Polycystic Kidney																				1 2.0
Renal Tubule, Hyperplasia, Focal																				1 2.0
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:19

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3 0PPB

DAY ON TEST

ANIMAL ID

0047	004	0054	00558	00571	00575	00579	0062	0063	0064	00651	00661	00666	00666	00671	00680	00688	00692	0078	00776	00772	00776	00772	00774	00779	00779	00779	00779	00750	00750	
0000	0001	0002	00024	00033	00034	00046	00051	00055	00081	00081	00082	00088	00088	00088	00083	00084	00085	00087	00088	00088	00089	00089	00092	00093	00099	00099	00099	00099	00066	00065

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Cecum	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Large, Rectum	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Intestine Small, Jejunum	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis						2				2							1				2		2			3		
Basophilic Focus																												
Bile Duct, Hyperplasia							2				3										2					1	2	
Cyst Multilocular																						X						
Eosinophilic Focus														X											X			
Hematopoietic Cell Proliferation				2																								
Hepatodiaphragmatic Nodule																												
Infiltration Cellular, Lymphocyte						1															1							
Inflammation, Chronic Active			1	1	1		2							1		1							1					
Necrosis																												
Periportal, Inflammation, Chronic											1																	
Tension Lipidosis																												
Vacuolization Cytoplasmic		2						2				3			4	2		2			3					1	2	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:20
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F3 0PPB	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
		4	7	0	1	4	7	7	7	0	0	4	4	5	5	5	5	7	8	8	9	0	0	2	2	2	4	4	4	4	5	5
		7	4	4	8	8	1	5	9	2	3	4	1	1	1	6	6	1	0	0	2	8	6	2	6	1	9	9	9	9	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	1	2	2	2	3	3	3	4	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	
	0	7	1	4	9	3	4	6	5	5	1	1	2	2	2	2	3	4	5	6	7	7	9	9	0	2	2	3	4	6	6	
	6	4	4	2	8	7	6	7	1	3	8	9	2	3	7	8	9	2	1	2	5	2	8	1	3	9	0	2	3	5	5	
Mesentery		+															+															
Fat, Necrosis																																
Oral Mucosa																	+															
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Acinar Cell, Degeneration		1		1		3		2		2		2		4		2		4		2		4		2		1						
Inflammation, Chronic																																
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Parotid Gl, Degeneration		4																														
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema		3															2															
Hyperplasia																	2 2															
Inflammation		2															2 2															
Keratin Cyst																																
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiovascular System																																
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy		2		1 1		1 1		2 2		1 1		1 1		3 1		1 1		1 1		1 1		1 1		1 1		2 2		2 2		2 2		
Endocrine System																																
Adrenal Cortex		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Atrophy																																
Degeneration, Cystic		2		2 2		3 2		2 3		2 2		3 3		3 3		2 1		2 4		2 3		3 3		4 3		3 2		3 3		3 3		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically
 X ..Lesion present
 I ..Insufficient tissue
 M ..Missing tissue
 A ..Autolysis precludes evaluation
 BLANK ..Not examined microscopically
 1-4 ..Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:20
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F3 0PPB

	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	5	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7
	4	7	0	1	4	7	7	7	0	0	4	4	5	5	5	5	7	8	8	9	0	0	2	2	2	4	4	5
	7	4	4	8	8	1	5	9	2	3	4	1	1	1	6	6	1	0	0	2	8	6	2	6	1	9	9	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	1	2	2	2	3	3	3	4	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9
	0	7	1	4	9	3	4	6	5	5	1	1	2	2	2	3	4	5	6	7	7	9	9	0	2	2	3	4
	6	4	4	2	8	7	6	7	1	3	8	9	2	3	7	8	9	7	2	1	2	5	2	8	1	3	0	5
Hypertrophy			2			2																				2		
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	M	M	+
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Angiectasis																												
Degeneration, Cystic			1																									
Hypertrophy, Focal			2																									
Necrosis								2																				
Pars Distalis, Cyst																											X	
Pars Distalis, Hyperplasia												1													1	2		
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
C Cell, Hyperplasia			1																								2	
Infiltration Cellular, Lymphocyte																												
Ultimobranchial Cyst																												
General Body System																												
NONE																												
Genital System																												
Clitoral Gland	+	+	+	+	M	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Atrophy															3	3							2			2		
Duct, Dilatation									2		3		2		2		2									2		
Inflammation			2			1			3	3							1					3	3	1			2	2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:21
First Dose M/F: NA / NA
Lab: NCTR

Page 341

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:21
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female F3 0PPB	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	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7
		4	7	0	1	4	7	7	7	0	0	4	4	5	5	5	5	7	8	8	9	0	0	2	2	2	4	4	4	4	5
		7	4	4	8	8	1	5	9	2	3	4	1	1	1	6	6	1	0	0	2	8	6	2	6	1	9	9	9	9	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	1	2	2	2	3	3	4	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9
	0	7	1	4	9	3	4	6	5	5	1	1	2	2	2	2	3	4	5	6	7	7	9	9	0	2	2	3	4	6	
	6	4	4	2	8	7	6	7	1	3	8	9	2	3	7	8	9	7	2	1	2	5	2	8	1	3	9	0	2	3	
Hyperplasia	2																														
Lymph Node	+ +																														

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:21
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female F3 0PPB	DAY ON TEST	0 0 4 7	0 4 7 4	0 5 0 4	0 5 1 8	0 5 4 8	0 5 7 1	0 5 7 5	0 5 7 9	0 6 2 2	0 6 3 3	0 6 4 4	0 6 1 1	0 6 1 1	0 6 5 6	0 6 5 6	0 6 7 1	0 6 8 0	0 6 8 0	0 7 9 2	0 7 0 6	0 7 2 2	0 7 2 6	0 7 2 1	0 7 4 9	0 7 4 9	0 7 4 9	0 7 4 9	0 7 4 9	0 7 5 0	0 7 5 2	
	ANIMAL ID	0 0 0 0 6	0 0 1 7 4	0 0 2 1 4	0 0 2 4 2	0 0 2 9 8	0 0 3 3 7	0 0 3 4 6	0 0 3 6 7	0 0 4 5 1	0 0 5 8 3	0 0 8 8 9	0 0 8 8 2	0 0 8 8 3	0 0 8 8 7	0 0 8 8 8	0 0 8 8 9	0 0 8 8 7	0 0 8 8 2	0 0 8 8 1	0 0 8 8 2	0 0 8 8 5	0 0 8 8 2	0 0 8 8 8	0 0 9 9 1	0 0 9 9 2	0 0 9 9 3	0 0 9 9 0	0 0 9 9 2	0 0 9 9 3		
	Hematopoietic Cell Proliferation	2		3	1	1				2	3	2	1			2	2	2			2											1
	Pigmentation					1		2	1	2					3		2		2		2	2	3			1	2			2	1	
	Thymus	+	+	+	+	+	+	+	+	+	M	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Cyst				X		X	X		X					X				X			X	X	X	X						X		
Integumentary System																																
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Alveolus, Hyperplasia				1	1	3			3	1	4	1	3		2	2			4	2			2	2	3			2	3		3	
Atypical Focus				1	1																										1	
Galactocele																			X													
Lactation					1			2				1		2	2				2	1		1	2						1		1	
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Abscess										4																						
Cyst Epithelial Inclusion				X																												
Inflammation				4							4	2						4			3	4			4						4	
Musculoskeletal System																																
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Skeletal Muscle							+	+											+													
Inflammation, Chronic Active							2																									
Nervous System																																
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Compression									3			2			3		3	3		2	1	3							2			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:22
First Dose M/F: NA / NA
Lab: NCTR

Page 344

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:22
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 0PPB

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

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Angiectasis										2					2						8 2.0
Basophilic Focus							X														1
Bile Duct, Hyperplasia		2				1		1		1		1				1		2			12 1.6
Cyst Multilocular												X									2
Eosinophilic Focus																					2
Hematopoietic Cell Proliferation																					1 2.0
Hepatodiaphragmatic Nodule															X	X		X	X		4
Infiltration Cellular, Lymphocyte																					2 1.0
Inflammation, Chronic Active			1												2	1					10 1.2
Necrosis											1										1 1.0
Periportal, Inflammation, Chronic														1					1		3 1.0
Tension Lipidosis										3				2							2 2.5
Vacuolization Cytoplasmic		2	3	3										1		2	2	1			16 2.2

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:23
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5
	0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	5	5	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	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1
	6	6	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3	3
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5
	*TOTALS																				
Mesentery																					3
Fat, Necrosis																					1 2.0
Oral Mucosa																					2
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Acinar Cell, Degeneration	2	3		2	2				2	2	1		2		4			1	2		1 23 2.1
Inflammation, Chronic																					1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Parotid G, Degeneration																					1 4.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Edema																					2 2.5
Hyperplasia																					2 2.0
Inflammation																					3 2.0
Keratin Cyst																					1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Cardiovascular System																					
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Cardiomyopathy	1	1	1		2	2	2	2	1	2	1		1	1				1		2	33 1.4
Endocrine System																					
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Atrophy																					1 2.0
Degeneration, Cystic	4	2	3	3	2	3	1	2	2	1	4	4	2	2	3	3	3	3	3	3	2 48 2.6

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:23

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3 0PPB

CD Rat Female F3 0PPB	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5	5	
		0	9	0	0	0	0	0	9	9	9	9	9	4	4	4	3	5	5	4	5	5	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1	1	1	
	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	2	3	3	3	3	
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5	*TOTALS		
Hypertrophy																							3	2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48	
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Angiectasis		3									2												2	2.5
Degeneration, Cystic																							1	1.0
Hypertrophy, Focal																							1	2.0
Necrosis																							1	2.0
Pars Distalis, Cyst																			X				2	
Pars Distalis, Hyperplasia		2			3		2																6	1.8
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
C Cell, Hyperplasia					3																		3	2.0
Infiltration Cellular, Lymphocyte																		2					1	2.0
Ultimobranchial Cyst																3	2						2	2.5
General Body System																								
NONE																								
Genital System																								
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Atrophy	3				3																		6	2.7
Duct, Dilatation	3	2														2							9	2.2
Inflammation	2	2	1			1	2	3	3			1		3	2	2	3	1	3				26	2.1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

1 ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:23
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 0PPB**

	DAY ON TEST																						*TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7		
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5		
	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*TOTALS	
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		
	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1		
	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3		
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	3	5	4	5	5	3	*TOTALS	
Inflammation, Suppurative													2										
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Atrophy	4	2	2	2	2	4	2	3	4	4	4	2	4	2	3	2	3	2		4	4		
Corpus Luteum, Cyst																						1	
Cyst		X	X			X										X	X		X			13	
Hyperplasia, Sertoliform		1	1				2	1	2	1		1	2		2	2		2				22	
Interstitial Cell, Hyperplasia						3	2				2									2		4	
Rete Ovarii, Cyst																	2					2	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51	
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	
Adenomyosis									3													1	
Dilatation																						1	
Endometrium, Hyperplasia	2						2		3			2										6	
Endometrium, Hyperplasia, Cystic	3					3						2		2	1				2	2		15	
Hyperplasia, Atypical, Focal							1					2			2						3	6	
Inflammation														2								2	
Metaplasia, Squamous												2										1	
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	51	
Inflammation	2	2				2											2			2	1	14	
Mucocyte, Hyperplasia	2	2	3	3	2	2	3	2	1	2		2		3	2		2	2	2			39	
Hematopoietic System																							
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:23
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F3 0PPB

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	5
	0	9	0	0	0	0	0	9	9	9	9	4	4	4	3	5	5	4	5	5	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	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1
	6	6	7	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3
	6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5
	*TOTALS																				
Hyperplasia																					1 2.0
Lymph Node	+																				10
Axillary, Hyperplasia, Lymphoid																					1 2.0
Axillary, Infiltration Cellular, Plasma Cell																					2 3.5
Lumbar, Degeneration, Cystic	3																				8 2.5
Lumbar, Hyperplasia, Lymphoid	2																				6 2.3
Lumbar, Infiltration Cellular, Plasma Cell	3																				9 2.9
Popliteal, Degeneration, Cystic																					1 3.0
Popliteal, Hyperplasia, Lymphoid																					1 2.0
Popliteal, Infiltration Cellular, Plasma Cell																					2 3.0
Renal, Degeneration, Cystic																					1 2.0
Renal, Hyperplasia, Lymphoid																					1 2.0
Renal, Infiltration Cellular, Plasma Cell																					1 4.0
Lymph Node, Mandibular	+ + + + + + + + + + + + + + + + + + + +																				51
Degeneration, Cystic																					6 2.0
Hyperplasia, Lymphoid																					12 2.0
Infiltration Cellular, Plasma Cell	3 2 2 3 2 3 2 3 2 3 3 2 2 2 2 3 3 3																				42 2.3
Lymph Node, Mesenteric	+ + + + + + + + + + + + + + + + + + + +																				51
Degeneration, Cystic																					3 1 3.0
Hyperplasia, Lymphoid																					5 2.2
Infiltration Cellular, Plasma Cell																					2 2.0
Inflammation, Chronic																					3 1 3.0
Spleen	+ + + + + + + + + + + + + + + + + + + +																				52

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + ..Tissue examined microscopically M ..Missing tissue 1-4 ..Lesion qualified as:
 X ..Lesion present A ..Autolysis precludes evaluation 1) Minimal 3) Moderate
 I ..Insufficient tissue BLANK ..Not examined microscopically 2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:24
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 0PPB**

CD Rat Female F3 0PPB	DAY ON TEST	0 7 5 0	0 7 4 9	0 7 5 0	0 7 5 0	0 7 5 0	0 7 5 0	0 7 5 0	0 7 5 0	0 7 4 9	0 7 5 9	0 7 4 9	0 7 5 9	0 7 4 4	0 7 5 4	0 7 5 4	0 7 5 3	0 7 5 5	0 7 5 4	0 7 5 5	0 7 5 5	0 7 5 3				
	ANIMAL ID	0 0 9 6 6	0 0 9 6 7	0 0 9 7 0	0 0 9 7 1	0 0 9 7 2	0 0 9 7 7	0 0 9 7 8	0 0 9 7 9	0 0 9 7 3	0 0 9 8 6	0 0 9 2 7	0 0 9 2 1	0 0 9 8 2	0 0 9 8 5	0 0 9 8 6	0 0 9 2 2	0 0 9 2 3	0 0 9 2 7	0 0 9 3 0	0 0 9 3 1	0 0 9 3 5				
																								*TOTALS		
	Hematopoietic Cell Proliferation	1																					14	1.8		
	Pigmentation	2	1	2		2	2	1	2					1			2	1		1	2	1	27	1.7		
	Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50			
	Cyst									X	X	X					X	X					16			
	Integumentary System																									
	Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52			
	Alveolus, Hyperplasia	3	1	3		1	2	2	3		1		2	2	3	3		3	3	2	1		35	2.3		
Atypical Focus	2	2			1								2		3	3		2	3	1		12	1.8			
Galactocele	X																					2				
Lactation	3		1			2	2		1										3	2	1	19	1.6			
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52				
Abscess																						1	4.0			
Cyst Epithelial Inclusion																						1				
Inflammation	4		4	4								4		4	4	4						15	3.8			
Musculoskeletal System																										
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52				
Skeletal Muscle																						3				
Inflammation, Chronic Active																						1	2.0			
Nervous System																										
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52				
Compression	2							2											3		2	13	2.4			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

**CD Rat Female
F3 0PPB**

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:24
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3 0PPB

	DAY ON TEST	ANIMAL ID																				*TOTALS
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Inflammation		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	1 3.0
Retina, Degeneration		5	4	5	5	5	5	5	4	4	4	4	5	5	5	5	5	5	5	5	5	2 1.5
Harderian Gland		0	9	0	0	0	0	0	9	9	9	9	4	4	3	5	5	4	5	5	3	52
Hyperplasia		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3 1.3
Infiltration Cellular, Lymphocyte		0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1 1.0
Inflammation		9	9	9	9	9	9	9	9	0	0	0	0	0	0	1	1	1	1	1	1	8 1.1
Urinary System		6	6	7	7	7	7	7	8	2	2	8	8	8	9	2	2	2	3	3	3	
Kidney		6	7	0	1	2	7	8	9	3	6	7	1	2	5	6	2	3	7	0	1	5
Cyst		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52
Hydronephrosis				X	X								X	X								10
Inflammation					2									2					2			1 2.0
Mineralization		1						1		1			1		2			2		2		22 1.6
Nephropathy		2	1	1	2		2	3	2	1	2		1		1			1		2		26 1.4
Urinary Bladder		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	52

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:26
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F3 /2PPB TO CTL	DAY ON TEST	0 4 1 8	0 4 9 5	0 5 2 2	0 5 4 1	0 5 5 8	0 5 7 7	0 5 9 9	0 6 0 9	0 5 2 9	0 6 2 4	0 6 1 1	0 6 3 3	0 6 0 3	0 6 6 6	0 7 0 0	0 7 0 8	0 7 1 8	0 7 2 2	0 7 3 6	0 7 4 0	0 7 6 6	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	0 7 9 9	
----------------------------------	-------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	------------------	--

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:27

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3 /2PPB TO CTL

DAY ON TEST

ANIMAL ID

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

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Bilateral, Cataract		X																									
Bilateral, Retina, Degeneration										2																	
Cataract				X																							
Retina, Degeneration				2																		2					
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Hyperplasia					2																1					1	
Infiltration Cellular, Lymphocyte																				1							
Inflammation															2		1	1						1			

Urinary System

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

X ..Lesion present

A ..Autolysis precludes evaluation

1 ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7
	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis	1	1													1				5 1.0
Basophilic Focus									X										3
Bile Duct, Hyperplasia	1			2			1		2		1		1			1	1		16 1.4
Centrilobular, Necrosis																			1 3.0
Cyst																			1
Degeneration, Cystic	3																		3 2.0
Eosinophilic Focus										X			X						3
Hematopoietic Cell Proliferation		1					1												3 1.0
Hepatodiaphragmatic Nodule												X					X		4
Inflammation, Chronic Active	1		1					1											5 1.0
Left Lat Lobe, Developmental Malformation																			1
Median Lobe, Developmental Malformation																			1
Necrosis							2												3 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

CD Rat Female F3 /2PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0					
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7					
		4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4					
		9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7					
	ANIMAL ID	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					
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1					
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	9	2	3	3	3					
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	3	4					
	*TOTALS																								
Periportal, Inflammation, Chronic	2																			1	3	1.3			
Tension Lipidosis	2																			2	3	2.0			
Vacuolization Cytoplasmic	3																			3	11	2.5			
Mesentery																					3				
Fat, Necrosis																					2	3.0			
Oral Mucosa	+																				4				
Gingival, Inflammation																					1	3.0			
Keratin Cyst	X																				2				
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49					
Acinar Cell, Degeneration	1	1	2	1	1	2	2		2		2	2	1		2		1	1	1	33	1.7				
Inflammation, Chronic	1																				4	1.5			
Lipomatosis																					1	3.0			
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49					
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49					
Tongue																					1				
Cardiovascular System																									
Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					
Cardiomyopathy	1																			1	2	1	1	28	1.3
Endocrine System																									
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50					

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:28
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7	7
	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4	4
	*TOTALS																			
Angiectasis																				1 3.0
Degeneration, Cystic	3	3	3	3		1	1	2	2	3	3	3	3	2	3	2	3	3	1	42 2.4
Hypertrophy					2															9 2.0
Infarct																				1 2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy																				1 3.0
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Hyperplasia										2										1 2.0
Parathyroid Gland	+	+	+	M	M	M	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Hyperplasia																				1 2.0
Thrombosis																				1 3.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis					2															2 2.0
Pars Distalis, Cyst														X						1
Pars Distalis, Hyperplasia																				3 2.3
Pars Intermed, Cyst																				1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
C Cell, Hyperplasia															2					3 2.3
Ultimobranchial Cyst			2				3							2			3			5 2.4

General Body System

NONE

Genital System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:29
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7	7
ANIMAL ID	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	2	3	3	3	4
	*TOTALS																			
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy															3					5 2.2
Duct, Dilatation			2							2					2		2			13 2.1
Duct, Hyperplasia, Squamous						2														1 2.0
Infiltration Cellular, Mast Cell																				1 3.0
Inflammation	2	2	4	1		2	2	2	1		3	3	4				2	1	2	26 2.2
Keratin Cyst																			X	1
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	4	1	3	3	1	2	2	4	1	3	2	2	2	2	4	2	4	2	2	46 2.8
Corpus Luteum, Cyst					X							X								2
Cyst	X							X		X			X	X					X	12
Hyperplasia, Sertoliform	1	1	1	2		2		3	1		2		1				1		1	20 1.8
Interstit Cell, Hyperplasia															3				2	3 2.3
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenomyosis																		4		1 4.0
Atrophy																				1 2.0
Dilatation																				1 3.0
Endometrium, Hyperplasia	2														3					6 2.0
Endometrium, Hyperplasia, Cystic	3	2									1									9 2.1
Hyperplasia, Atypical, Focal		1		1			1	1		2				1	1		1			16 1.4
Metaplasia, Squamous															1					4 1.5
Vagina	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:29
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F3 /2PPB TO CTL	DAY ON TEST		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID	*TOTALS
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4			
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7			
	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		
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1		
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	9	2	3	3	3		
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4			
Hemorrhage																					1 3.0	
Inflammation				2		2			1				2				1	1			16 1.8	
Mucocyte, Hyperplasia		1	4	2	4	2	2	4		1	4	1	3	2	1	1	2		3	3	39 2.3	
Hematopoietic System																						
Bone Marrow		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Lymph Node		+	+	+	+				+	+			+	+	+			+			17	
Axillary, Infiltration Cellular, Plasma Cell									2												1 2.0	
Lumbar, Degeneration, Cystic		3	2	3	3				3				2	2	2			3			14 2.7	
Lumbar, Hemorrhage															3						1 3.0	
Lumbar, Hyperplasia, Lymphoid				3	3	2							3	3				2			11 2.5	
Lumbar, Infiltration Cellular, Plasma Cell		2	3	3	3				4				3	3	3			3			15 2.9	
Popliteal, Degeneration, Cystic		2								2											3 2.0	
Popliteal, Hyperplasia, Lymphoid										2			3	2							5 2.2	
Popliteal, Infiltration Cellular, Plasma Cell		4							3	3			3	3							7 3.4	
Renal, Degeneration, Cystic		3																			2 3.0	
Renal, Hyperplasia, Lymphoid																					1 3.0	
Renal, Infiltration Cellular, Plasma Cell		3																			2 3.0	
Lymph Node, Mandibular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Degeneration, Cystic				2		4				2						3				2	9 2.2	
Hyperplasia, Lymphoid										2					2				2		9 2.0	
Infiltration Cellular, Plasma Cell		3	3	3	3	2			2	2	2	2		2	2	3		3	2	3	38 2.3	
Lymph Node, Mesenteric		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:29
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7	7	7
	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4	4	4
	*TOTALS																				
Hyperplasia, Lymphoid	2																				2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hematopoietic Cell Proliferation	2	1						3													15 1.9
Hyperplasia, Lymphoid																					2 2.5
Pigmentation		2		2			1			2	2	1			3	1	2		2		26 1.8
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	45
Cyst	X				X				X		X	X	X		X		X		X		19
Integumentary System																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolus, Hyperplasia	3	3	3	4		3	3	3		4	1	3	2	3	3	1	2	3	2		36 2.5
Atypical Focus	2	3	1	1		3	3	1		1	1	1		2	2	2	2	2			21 1.7
Galactoceles																					1
Lactation	2														2						6 1.8
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Abscess																					1 4.0
Inflammation	4	4		4	4	4		4	4				4	4			4				21 4.0
Musculoskeletal System																					
Bone																					1
Cartilage, Sternum, Degeneration																					1 3.0
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Skeletal Muscle																					4
Head, Hyalinization, Focal																					1 3.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:29
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7
	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4
	*TOTALS																		

Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Compression	1									2		1			3					11	2.2	
Hemorrhage																				1	2.0	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Peripheral Nerve																				1		
Spinal Cord																				1		

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Alveolar Epith, Hyperplasia							2		2							1				4	1.5	
Infiltration Cellular, Histiocyte	1					1	2		2		2	1		1					2	14	1.5	
Inflammation																				4	1.0	
Mineralization																				1	2.0	
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50		
Goblet Cell, Hyperplasia				1				1												3	1.0	
Inflammation																				2	2.0	
Nasolacrim Dct, Inflammation			2	2	2		2	2	2		1	2	2	2	2				2	34	1.9	
Olfactory Epi, Hyaline Droplet			2						2					2						8	1.9	
Respirat Epith, Hyperplasia																				1	3.0	
Trachea	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49		
Inflammation																				2	1.5	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:30
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3 /2PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	5	5	4	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4
	9	0	0	9	2	5	5	4	4	4	4	4	4	4	4	5	5	9	7
	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
	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
	8	1	2	2	5	7	7	7	8	8	8	8	9	9	9	2	3	3	3
	1	7	2	3	0	4	5	6	3	4	7	8	2	3	4	4	2	3	4
	*TOTALS																		

Special Senses System

Eye	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Bilateral, Cataract																			1
Bilateral, Retina, Degeneration							2												2 2.0
Cataract																			1
Retina, Degeneration																			2 2.0
Harderian Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia																		1	4 1.3
Infiltration Cellular, Lymphocyte									1										2 1.0
Inflammation			1										2	1			1		8 1.3

Urinary System

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst				X	X								X					X	12
Epithelium, Pelvis, Hyperplasia																			1 2.0
Hydronephrosis																			1 2.0
Infiltration Cellular, Lymphocyte							1			1									2 1.0
Inflammation														2					5 1.6
Mineralization			1		2				1		1						1		14 1.2
Nephropathy			1			2			1			1			2		1	1	23 1.4
Urinary Bladder	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:30

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

DAY ON TEST

ANIMAL ID

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

Alimentary System

[illegible]

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

1 ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:31
First Dose M/F: NA / NA
Lab: NCTR

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

[illegible]

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:31

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

DAY ON TEST

ANIMAL ID

[illegible]

General Body System

Tissue NOS

Genital System

Clitoral Gland	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Atrophy	3						2					2									3										
Duct, Dilatation							2					3			3						2										
Duct, Hyperplasia, Squamous																											2				
Duct, Inflammation																											2				
Hyperplasia																									1						
Inflammation		1	2	2						2	2	2			3	2		2	1		2		3			3	4				
Keratin Cyst																															
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Atrophy	3		2	4	4		3	3	3	2	1	4	4	4	4	2	4	3	1	4	4	2	2	4	4	4	2	3	4	2	4
Corpus Luteum, Cyst								X		X																					
Cyst				X			X					X	X		X		X	X			X	X					X		X		
Hyperplasia, Sertoliform							2	1			2	1	2	2	2		2	2		4	2	1	1			1		3	1		
Rete Ovarii, Cyst								2						2																	
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+			
Adenomyosis																															
Atrophy																					3										
Endometrium, Hyperplasia							2								3		2				3				3			2			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

A ..Autolysis precludes evaluation

X ..Lesion present

1 ..Insufficient tissue

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:32
First Dose M/F: NA / NA
Lab: NCTR

[illegible]

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:32
First Dose M/F: NA / NA
Lab: NCTR

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:33
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	4
	0	0	8	9	9	0	9	8	1	5	4	4	4	5	5	5	4	5	5
	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
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	3	3	3
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	6	8	7	8
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Dilatation																			1 2.0
Inflammation, Chronic																			1 3.0
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Dilatation																			1 3.0
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic																			1 3.0
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Lymphoid Tiss, Inflammation, Chronic Active																			1 3.0
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Inflammation, Chronic																			1 3.0
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis						2								2					2 2.0
Bile Duct, Hyperplasia					1		2	2						1					14 1.6
Cyst Multilocular													X						1
Degeneration, Cystic						3													1 3.0
Eosinophilic Focus																			2
Hematopoietic Cell Proliferation																			2 1.0
Hepatodiaphragmatic Nodule				X															1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:34
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	4
	0	0	8	9	9	0	9	8	1	5	4	4	4	4	5	5	5	4	5
	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
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	2	3	3
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	6	8	7	8
	*TOTALS																		
Infiltration Cellular, Lymphocyte																			1 1.0
Inflammation, Chronic Active									1				1	1	1				5 1.0
Periportal, Inflammation, Chronic				1													1		6 1.3
Tension Lipidosis					3														1 3.0
Vacuolization Cytoplasmic									3	1	2				2		3	2	10 2.1
Mesentery															+		+		4
Fat, Necrosis															3		3		3 3.0
Oral Mucosa					+	+			+										7
Abscess					4														1 4.0
Gingival, Inflammation						3													1 3.0
Keratin Cyst																			1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Acinar Cell, Degeneration	2					2		2		2	1		2		1	1	1		21 1.9
Inflammation, Chronic																			2 2.5
Lipomatosis																			1 1.0
Salivary Glands	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation, Chronic																			1 3.0
Stomach, Forestomach	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Edema																			2 3.5
Hyperplasia																			1 3.0
Inflammation										3									2 3.0
Keratin Cyst							X												1
Stomach, Glandular	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:34
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	4
	0	0	8	9	9	0	9	8	1	5	4	4	4	4	5	5	5	4	5
	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
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	2	3	3
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	6	8	7	8
	*TOTALS																		

General Body System

Tissue NOS + 1

Genital System

Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49
Atrophy						2					3								6 2.5
Duct, Dilatation	2					3					3								7 2.6
Duct, Hyperplasia, Squamous																			1 2.0
Duct, Inflammation																			1 2.0
Hyperplasia																			1 1.0
Inflammation	2	2	2		2			3		2			1	2		3		1	24 2.1
Keratin Cyst								X											1
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	2	2	4	3	2	4			4	2	2	2	2	3		4	2	1	45 2.9
Corpus Luteum, Cyst																			2
Cyst			X				X					X		X					15
Hyperplasia, Sertoliform	1	2	3		2	1			3	2	1					4		1	26 1.9
Rete Ovarii, Cyst																			2 2.0
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Adenomyosis				2															1 2.0
Atrophy						2													2 2.5
Endometrium, Hyperplasia			1	2	3														8 2.3

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

CD Rat Female
F3/10PPB TO CTL

CAS Number: 57-63-6

Lab: NCTR

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade		
+ ..Tissue examined microscopically	M ..Missing tissue	1-4 ..Lesion qualified as:
X ..Lesion present	A ..Autolysis precludes evaluation	1) Minimal 3) Moderate
I ..Insufficient tissue	BLANK ..Not examined microscopically	2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:35
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/10PPB TO CTL**

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	4
	0	0	8	9	9	0	9	8	1	5	5	4	4	5	5	5	5	4	5
	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
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	2	3	3
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	8	7	8	
	*TOTALS																		
Degeneration, Cystic				2	4	2								3					8 2.3
Hemorrhage											2								1 2.0
Hyperplasia, Lymphoid			2					2		2									9 2.0
Infiltration Cellular, Plasma Cell	2	3	2	3		2	3	2	3	2	2		2	2	2	3	3	2	2 40 2.4
Lymph Node, Mesenteric	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Degeneration, Cystic																			1 2.0
Hyperplasia, Lymphoid										2									5 2.0
Infiltration Cellular, Plasma Cell																			3 2.0
Pigmentation																			1 2.0
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hematopoietic Cell Proliferation											1					1			12 1.9
Hyperplasia, Histiocytic, Focal																			1 3.0
Pigmentation		2	1		1		2	3	2	1	1		2	1		2			24 1.7
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	46
Cyst			X	X		X		X	X						X	X	X		17
Integumentary System																			
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolus, Hyperplasia	3	3	2	4	3	4	3	1	3	3	2	2	2	3	3		2	1	1 40 2.4
Atypical Focus	2	1	2	2	3	2	1	1	1		1		1	3	3				22 1.7
Duct, Dilatation								2											3 2.7
Galactocele						X													1
Inflammation																			1 2.0

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

CD Rat Female F3/10PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	4	
		0	0	8	9	9	0	9	8	1	5	4	4	4	4	5	5	5	4	5
	ANIMAL ID	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	
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	2	3	3	
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	6	8	7	8	
		*TOTALS																		
Inflammation																			1	1.0
Peribronchial, Inflammation, Chronic																			1	3.0
Perivascular, Inflammation																			1	1.0
Nose		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Goblet Cell, Hyperplasia						2													1	2.0
Inflammation										3					2				3	2.3
Nasolacrim Dct, Inflammation		2					2	1			1	1	1			2	2	2	2	1.8
Olfactory Epi, Hyaline Droplet				2					2		1		3						5	2.0
Trachea		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Inflammation																			2	1.0
Special Senses System																				
Ear																			+	2
Eye		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	49	
Bilateral, Retina, Degeneration													2						3	2.0
Cataract																			2	
Inflammation										4									1	4.0
Phthisis Bulbi																			1	
Retina, Degeneration																			1	2.0
Harderian Gland		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50	
Hyperplasia				2															2	1.6
Infiltration Cellular, Lymphocyte		1																	3	1.0
Inflammation				2		1						2	1	1				2	12	1.6

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:36
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/10PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	5	5	4	4	4	5	4	4	5	5	5	5	5	5	5	5	5	5	4
	0	0	8	9	9	0	9	8	1	5	4	4	4	5	5	5	5	4	5
ANIMAL ID	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
	9	9	9	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1
	6	7	8	1	1	1	2	2	5	7	7	7	8	9	2	2	2	3	3
	4	5	2	5	6	9	1	9	2	1	2	7	6	5	5	6	8	7	8
	*TOTALS																		
Zymbal's Gland	1																		
Urinary System																			
Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Cyst	X	X	X	X	X										X		X	X	17
Inflammation																			2 1.5
Mineralization				1	1	2	3		2		2			2		2			21 1.9
Nephropathy	1	1						2	2	1				1	2	2			19 1.3
Renal Tubule, Accumulation, Hyaline Droplet																			2 4.0
Urinary Bladder	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	49

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:36
First Dose M/F: NA / NA
Lab: NCTR

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

[illegible]

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:37
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female F3/50PPB TO CTL	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
		2	3	4	4	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	
		8	2	0	2	3	9	4	6	7	9	9	0	1	3	6	8	7	7	8	9	0	1	2	2	4	4	4	4	4	4	4	4	4	
		7	1	0	7	0	3	8	1	8	6	7	3	6	3	9	0	7	9	2	4	7	5	3	1	9	9	9	9	9	9	9	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	1	1	1	2	3	3	3	3	5	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9		
		4	5	9	1	2	9	9	2	5	9	9	5	0	1	3	4	5	5	5	6	7	8	9	9	2	2	2	3	3	3	4	4		
		3	2	1	8	1	9	7	2	7	7	8	2	4	5	6	8	0	1	6	3	1	3	0	4	5	6	7	3	8	9	0	0		
Periportal, Inflammation, Chronic																																2	2		
Vacuolization Cytoplasmic					2					2														3				3							
Mesentery			+				+						+								+														
Fat, Necrosis							2						3								3														
Oral Mucosa											+															+									
Keratin Cyst																										X									
Pancreas		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Accessory Spleen																																			
Acinar Cell, Degeneration					2					1			2	2					2			2					2	1	1	1					
Inflammation, Chronic						1																													
Salivary Glands		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Infiltration Cellular, Lymphocyte																										1									
Stomach, Forestomach		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Hyperplasia																																			
Ulcer		2																																	
Stomach, Glandular		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Edema		2																																	
Cardiovascular System																																			
Blood Vessel		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Heart		+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	
Cardiomyopathy										1										1	1			2					1	1	1	1			
Endocrine System																																			

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:37

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST

ANIMAL ID

Adrenal Cortex

Accessory Adrenal Cortical Nodule

Angiectasis

Degeneration, Cystic

Hematopoietic Cell Proliferation

Hypertrophy

Infarct

Adrenal Medulla

Islets, Pancreatic

Hyperplasia

Parathyroid Gland

Hyperplasia

Pituitary Gland

Angiectasis

Pars Distalis, Cyst

Pars Distalis, Hyperplasia

Thyroid Gland

C Cell, Hyperplasia

Follicular Cel, Hyperplasia

Infiltration Cellular, Lymphocyte

Ultimobranchial Cyst

General Body System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
Test Type: MULTIGEN CHRONIC
Route: DOSED FEED
Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)

CAS Number: 57-63-6

Date Report Requested: 10/23/2014

Time Report Requested: 12:57:38

First Dose M/F: NA / NA

Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST

ANIMAL ID

Tissue NOS

Genital System

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

M ..Missing tissue

1-4 ..Lesion qualified as:

X ..Lesion present

A ..Autolysis precludes evaluation

1) Minimal 3) Moderate

I ..Insufficient tissue

BLANK ..Not examined microscopically

2) Mild 4) Marked

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:39
First Dose M/F: NA / NA
Lab: NCTR

[illegible]

Page 395

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
Time Report Requested: 12:57:39
First Dose M/F: NA / NA
Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

	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	0	0	0	0	0	0	0	0
		2	3	4	4	4	4	5	5	5	5	5	6	6	6	6	6	6	6	6	6	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
		8	2	0	2	3	9	4	6	7	9	9	0	1	3	6	8	7	7	8	9	0	1	2	2	4	4	4	4	4	4	4	4	4	4	4	4	4
		7	1	0	7	0	3	8	1	8	6	7	3	6	3	9	0	7	9	2	4	7	5	3	1	9	9	9	9	9	9	9	9	9	9	9	9	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	
		0	0	0	1	1	1	2	3	3	3	3	5	8	8	8	8	8	8	8	8	8	8	8	8	8	8	9	9	9	9	9	9	9	9	9	9	
		4	5	9	1	2	9	9	2	5	9	9	5	0	1	3	4	5	5	5	6	7	8	9	9	2	2	2	3	3	3	3	3	3	4	4		
		3	2	1	8	1	9	7	2	7	7	8	2	4	5	6	8	0	1	6	3	1	3	0	4	5	6	7	3	8	9	9	9	9	9	9	0	
Hemorrhage																																						
Inflammation																																						

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:39
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	0	9	9	2	5	4	4	4	4	4	5	5	3
	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
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	2	5	7	7	7	8	8	9	9	2	3
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6
	*TOTALS																		

Alimentary System

Esophagus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Inflammation																			1 4.0
Intestine Large, Cecum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Colon	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Large, Rectum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Duodenum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Ileum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Intestine Small, Jejunum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis		2											2						5 2.0
Basophilic Focus																			2
Bile Duct, Hyperplasia	1							2							1	2	1		6 1.5
Cyst Multilocular																			1
Degeneration, Cystic		2																	1 2.0
Eosinophilic Focus																			2
Hematopoietic Cell Proliferation					1														4 2.0
Hepatocyte, Periportal, Hypertrophy			2																1 2.0
Hepatodiaphragmatic Nodule																			1
Inflammation, Chronic Active									2					1		1			4 1.3
Left Lat Lobe, Developmental Malformation																			2
Necrosis												1							5 1.8

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:40
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

	DAY ON TEST																			
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	4	5	5	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	2	5	7	7	7	8	8	9	9	2	3	3
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6	6
	*TOTALS																			
Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Accessory Adrenal Cortical Nodule																				1
Angiectasis																				2 2.0
Degeneration, Cystic	3	2	4		3	3	2	2	3	1		3	3	3	3	1	1	1	2	41 2.3
Hematopoietic Cell Proliferation																				2 2.0
Hypertrophy				1					2		2									7 1.9
Infarct																				1 2.0
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hyperplasia																				1 3.0
Parathyroid Gland	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	44
Hyperplasia																				1 2.0
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Angiectasis																				1 1.0
Pars Distalis, Cyst																				1
Pars Distalis, Hyperplasia			4							4										5 2.8
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
C Cell, Hyperplasia	2																			1 2.0
Follicular Cel, Hyperplasia																				1 2.0
Infiltration Cellular, Lymphocyte																				1 2.0
Ultimobranchial Cyst										3					3					2 3.0
General Body System																				

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:40
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	5	5	3
	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
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	5	7	7	8	8	9	9	2	3		
	1	9	6	4	8	0	4	5	1	3	8	9	0	9	0	1	9	6	
	*TOTALS																		
Tissue NOS	+																		
Genital System																			
Clitoral Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	48
Atrophy		2		2	3														6 2.2
Duct, Dilatation				2	2		2			3			2		2			3	9 2.3
Hyperplasia															1				3 2.0
Inflammation	1		1				1	2		4	2			2	1			2	20 2.0
Keratin Cyst																			1
Ovary	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy	4	3	4	4	4	4	2	3	2	2	3	2	2	2	1	3	4	2	49 2.9
Cyst	X		X			X	X	X	X		X					X	X		13
Hyperplasia, Sertoliform	3		2	4	1	2	2	1		2	2	1		1	1	2		2	27 1.7
Oviduct	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Uterus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Atrophy		2			2														2 2.0
Dilatation																			1 2.0
Endometrium, Degeneration																			1 2.0
Endometrium, Hyperplasia										2							2		5 2.2
Endometrium, Hyperplasia, Cystic			2			4	2						4				2	3	18 2.4
Hyperplasia, Atypical, Focal	1		3		1	2	1	1				1				1			21 1.5
Inflammation																			1 1.0
Metaplasia, Squamous	1		1			1											2		11 1.7

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

**CD Rat Female
 F3/50PPB TO CTL**

CD Rat Female F3/50PPB TO CTL	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
		4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5	5	
		9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	4	5	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1		
	4	6	7	8	1	2	2	2	2	5	7	7	8	8	8	9	9	2	3			
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6			
	*TOTALS																					
Infiltration Cellular, Plasma Cell																					2	2.5
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Hematopoietic Cell Proliferation				2		2								1							16	1.9
Pigmentation	3		2	2		1	1	1					1	2				3	2	2	29	2.0
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		49	
Atrophy																					1	2.0
Cyst	X							X		X		X		X		X	X				20	
Integumentary System																						
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Alveolus, Hyperplasia	3	2	2	2	3	1	3	4	1	2	3	2	1	3		2	2	2	2		39	2.2
Atypical Focus	1		3		2	1	2	3						1				2	2		18	1.9
Duct, Dilatation			3	3																	3	2.7
Galactocele	X	X																X			5	
Lactation			2	2		1								1				2	2		20	1.9
Skin	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Cyst Epithelial Inclusion																					1	
Inflammation				4	4	4	4			4				4		4					12	3.8
Musculoskeletal System																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		50	
Osteopetrosis																					1	3.0
Skeletal Muscle																					1	

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	4	5	3
	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
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	2	5	7	7	7	8	8	9	9	2	3
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6
	*TOTALS																		

Nervous System

Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Compression	3		3	3	2		2				2								20 2.6
Hemorrhage																			1 3.0
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus				2															3 2.0
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Hydrocephalus																			3 2.0
Peripheral Nerve																			1
Spinal Cord																			1
Necrosis																			1 3.0

Respiratory System

Lung	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Alveolar Epith, Hyperplasia																	1		1 1.0
Hemorrhage																			1 1.0
Infiltration Cellular, Histiocyte				1														2	7 1.1
Inflammation																			2 1.5
Nose	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	50
Goblet Cell, Hyperplasia				2															3 2.0
Inflammation													2			1			6 2.0
Nasolacrim Dct, Inflammation		2	1	2			2		2				2	2	1	1		2	26 1.7
Nasolacrim Dct, Keratin Cyst																			1

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:41
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
F3/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ANIMAL ID	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	4	5	3
	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
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	2	5	7	7	7	8	8	9	9	2	3
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6
	*TOTALS																		
Olfactory Epi, Hyaline Droplet	1 3																		
Osteopetrosis																			
Respirat Epith, Hyperplasia																			
Trachea	+ + + + + + + + + + + + + + + + + + +																		
Inflammation																			
Special Senses System																			
Eye	+ + + + + + + + + + + + + + + + + + +																		
Bilateral, Retina, Degeneration	3																		
Cataract																			
Phthisis Bulbi																			
Retina, Degeneration	1																		
Harderian Gland	+ + + + + + + + + + + + + + + + + + +																		
Infiltration Cellular, Lymphocyte																			
Inflammation	1 1 1 1 1																		
Urinary System																			
Kidney	+ + + + + + + + + + + + + + + + + + +																		
Cyst	X X X																		
Hydronephrosis																			
Inflammation	3																		
Mineralization	2 1 1 1 1 1 1 1 1 3 1 1 2																		
Nephropathy	1 1 1 2 1 1 1 1 2 1																		
Urinary Bladder	+ + + + + + + + + + + + + + + + + + +																		

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 99920-92
 Test Type: MULTIGEN CHRONIC
 Route: DOSED FEED
 Species/Strain: Rat/CD

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Test Compound: ENDOCRINE DISRUPTOR(Ethinyl Estradiol)
 CAS Number: 57-63-6

Date Report Requested: 10/23/2014
 Time Report Requested: 12:57:42
 First Dose M/F: NA / NA
 Lab: NCTR

CD Rat Female
 F3/50PPB TO CTL

DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
	4	4	4	4	5	5	4	4	4	5	5	5	5	5	5	5	5	5	5
	9	9	9	8	0	0	9	9	9	2	5	4	4	4	4	4	4	5	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	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	9	9	9	9	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
	4	6	7	8	1	2	2	2	2	5	7	7	7	8	8	9	9	2	3
	1	9	6	4	8	0	4	5	8	1	3	8	9	0	9	0	1	9	6
*TOTALS																			
Hemorrhage																			
Inflammation																			

1 2.0

1 2.0

** END OF REPORT **

* ..Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ ..Tissue examined microscopically

X ..Lesion present

I ..Insufficient tissue

M ..Missing tissue

A ..Autolysis precludes evaluation

BLANK ..Not examined microscopically

1-4 ..Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked