

(b) (4)

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CONFIDENTIAL

90 Day Dietary Toxicity Study in Dogs

with Compound

(b) (4)

THUVID 770

(b) (4)

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18th September, 1974.

000624

6.4

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ASSESSMENT

Compound (b) (4) when fed to dogs mixed with the diet at a concentration of 8000 p.p.m. was so unpalatable that dogs refused to eat. On day 43 the dietary concentration of the test compound was reduced to 2600 p.p.m. and on day 50 it was increased again to 5000 p.p.m., whereupon a reasonable food intake was maintained. A slight reduction in red cell parameters until the 12th week and a reduction of serum protein throughout the test were recorded in females only. These changes in the laboratory parameters were probably caused by the poor food intake during the first part of the test. A minimal hepatocyte hypertrophy was observed. This is considered to be a phenomenon of adaptive nature.

At 2600 p.p.m. and at 800 p.p.m. no changes were seen which could be considered as related to the administration of (b) (4)

In a recovery experiment of four weeks (8000 → 5000 p.p.m.) neither changes of laboratory parameters nor histopathological changes were seen.

EXPERIMENTAL RESULTS

(b) (4) was administered in the diet to Beagle dogs for a period of 13 weeks at levels of 0, 800 p.p.m. (27 mg/kg)*, 2600 p.p.m. (73 mg/kg)* and 8000 → 5000 p.p.m. (152 mg/kg)*.

During the test the majority of animals in all groups (including controls) suffered from a mild tracheitis and conjunctivitis for which no treatment was necessary. This condition was not related to the administration of (b) (4).

At 8000 p.p.m. the diet proved so unpalatable that the dogs refused to eat it, consequently food intake and body weight fell and became so extreme as to threaten survival. On day 43 the dietary concentration of the test compound was reduced to 2600 p.p.m. At this level food intake and body weights improved dramatically. On day 50 the dietary concentration was increased to 5000 p.p.m. At this level food intake fell slightly but improved as the trial progressed. From this time body weight gains were satisfactory.

At week 5 a slight decline in red cell parameters (haemoglobin, erythrocyte and haematocrit) was recorded in females only ($P < 0.05$). The ESR was increased in a few individuals. By week 13 these differences were no longer significant and were considered to be due to the poor food intake during the first few weeks of the trial.

In female animals the serum protein levels were slightly below controls throughout the test. This may also be attributed to poor food intake.

At autopsy no changes caused by the administration of the test compound were seen.

On histopathological examination the only change due to the administration of (b) (4) was a minimal hypertrophy of periportal hepatocytes which is considered to be an adaptive phenomenon.

At 2600 p.p.m. there was no significant difference in food consumption and body weight gains compared to controls. At week 5 there was a marked increase in ESR in one male animal only. Although serum proteins in females were marginally lower than controls, all values were within normal limits.

At autopsy and on histopathological examination no changes caused by the administration of (b) (4) were seen.

At 800 p.p.m. no significant differences between this group and controls occurred.

*Approximate average daily intake of (b) (4) over the test period.

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Ophthalmic Examination

Apart from mild conjunctivitis present in all groups including control, no adverse eye changes were seen throughout the test.

Recovery Experiment

Two animals (1 ♂ and 1 ♀) were retained from each of groups 1 (Control) and 4 (8000 → 5000 p.p.m.) for a further four weeks without treatment, after the end of the test, as a recovery experiment. All laboratory parameters were within normal limits and no changes caused by the administration of (b) (4) were seen at autopsy or on histopathological examination.

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EXPERIMENTAL PROCEDUREAnimals

Healthy pedigree Beagle dogs bred and maintained on the premises, aged between 7 and 13½ months at the start of the trial. All animals were fully immunised against canine distemper, infectious canine hepatitis and leptospirosis.

Husbandry

Animals were individually housed in metabolism cages. Food and water intake, body temperature and pulse rate were recorded daily for 2 weeks prior to the start of the trial. During this period diet similar to that to be used for the test but without the addition of compound, was fed ad lib.

Animals were weighed at day 0 and thereafter at weekly intervals and on the day of autopsy.

Compound and Administration

The compound "Ref. (b) (4) KA2 (EP 101) was a white powder. The appropriate amount of compound was fed mixed with the diet.

Dose levels and Groups

Thirty-six animals (18 ♂ and 18 ♀) were randomised into 4 groups as follows:-

Group	Dose level - (b) (4)	Animal Numbers
1	Control	♂ 101, 103, 105, 107, 109 ♀ 102, 104, 106, 108, 110
2	800 p.p.m.	♂ 201, 203, 205, 207 ♀ 202, 204, 206, 208
3	2600 p.p.m.	♂ 301, 303, 305, 207 ♀ 302, 304, 306, 308
4	8000 p.p.m.*	♂ 401, 403, 405, 407, 409 ♀ 402, 404, 406, 408, 410

* Changed to 2600 p.p.m. from day 43 and 5000 p.p.m. from day 50.

♂ 109 and ♀ 110 (Controls) and ♂ 409 and ♀ 410 (Group 4) were retained for a further 4 weeks without treatment after termination of the main test as a recovery experiment.

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Diet Preparation

The diet was prepared from powdered Purina Dog meal mixed with .15% dry malt (Diamalt OCD) and 10% water.

A 2 kg. pre-mix of the dog meal with compound at the appropriate levels was prepared and mixed for 1 hour. This was then added to the bulk diet and the whole mixed for a further $\frac{1}{2}$ hour (water being added during this time). The mixture was then pelleted and dried for 12 hours at a temperature not exceeding 45°C.

Control diet was prepared in the same manner without addition of

(b) (4).

Laboratory Studies

Blood samples for haematology and clinical chemistry and urine samples were taken from all animals pre-test and during weeks 5, 9 and 13. Samples were also taken from the dogs on the recovery experiment (two animals from each of groups 1 and 4) during week 17.

Observations

Records of various parameters were kept as follows:-

Clinical symptoms	-	daily
Body weights	-	weekly
Food consumption	-	daily

An ophthalmic and hearing examination was carried out on all animals pre-test and during weeks 6, 9 and 13. The animals on the recovery experiment were also examined during week 17.

Food Conversion Ratios

These were calculated for 2 weeks pre-test and then for each month of the trial using the formula

$$\frac{\text{Body weight gain} \times 100}{\text{Total food consumed}}$$

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METHODS USED IN HAEMATOLOGY & CLINICAL CHEMISTRY

	<u>METHOD</u>	<u>UNITS OF MEASUREMENT</u>
<input checked="" type="checkbox"/> Haemoglobin:	Cyanmethaemoglobin (Spectrophotometric at 540 n.m.).	grams/100 ml.
<input checked="" type="checkbox"/> Erythrocytes:	Coulter Counter Model F.	10^6 / cmm.
<input checked="" type="checkbox"/> Haematocrit:	Micro haematocrit (Hawksley).	%
<input checked="" type="checkbox"/> Reticulocytes:)	Unfixed smear stained with 1% Cresyl Violet.	%
<input checked="" type="checkbox"/> Inclusion Bodies:)		
<input checked="" type="checkbox"/> Thrombocytes:	Coulter Thrombocounter.	10^3 / cmm.
<input checked="" type="checkbox"/> Leucocytes:		
<input checked="" type="checkbox"/> Total Count:	Coulter Counter Model F.	10^3 / cmm.
<input checked="" type="checkbox"/> Differential Count:	Blood smear stained with Leishman's stain.	%
<input checked="" type="checkbox"/> Prothrombin Time:	Quick one stage method: Thromboplastin Hyland.	Secs.
<input checked="" type="checkbox"/> E.S.R.	Method of Westergren (200 mm. tubes).	mm.
<input type="checkbox"/> Methaemoglobin:	Evelyn, K.A. & Malloy, H.Y. J. Biol. Chem. <u>126</u> , 655 (1938).	

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<input checked="" type="checkbox"/>	Sodium:	Flame Photometer EEL 227	m.eq/L.
<input checked="" type="checkbox"/>	Potassium:	Flame Photometer EEL 227	m.eq/L.
<input type="checkbox"/>	Chloride:	EEL Chloride Meter	m.eq/L.
<input checked="" type="checkbox"/>	Glucose:	Glucose oxidase: Werner, H., Rey, H. G. and Wielinger, H., Z. Analyt. Chem. <u>252</u> 224 (1970). Schmidt, F. H., Internist <u>4</u> 554 (1963).	mgs/100 ml.
<input checked="" type="checkbox"/>	Urea:	Colorimetric (Nesslerization): Fawcett, J. K. and Scott, J. F., J. Clin. Path. <u>13</u> 156 (1960).	mgs/100 ml.
<input checked="" type="checkbox"/>	S.G.O.T.	LKB Reaction Rate Analyser: UV. Karmen et al. J. Clin. Invest., <u>34</u> , 126, (1955) Karmen et al. J. Clin. Invest., <u>34</u> , 131, (1955)	m.units/ml. 35°C
<input checked="" type="checkbox"/>	S.G.P.T.	LKB Reaction Rate Analyser: UV. Wroblewski, R. et al., Proc. Soc. Exp. Biol. Med. <u>91</u> , 569 (1956)	m.units/ml. 35°C
<input checked="" type="checkbox"/>	S.A.P.	LKB Reaction Rate Analyser: Bessey et al., J. Biol. Chem. <u>164</u> , 321 (1946). Bergström, K. & Thunblad, L., Science Tools <u>17</u> No. 2 (1970)	m.units/ml. 35°C
<input checked="" type="checkbox"/>	Serum Proteins:		
	<input checked="" type="checkbox"/> Total:	Biuret method: Henry, R. J. (1964)	g/100 ml.
	<input checked="" type="checkbox"/> Electrophoresis:	Gelman Sepra Tek System. Cellulose acetate strips.	%
<input type="checkbox"/>	Cholinesterase:	Colorimetric: Ellman, G. L. et al., Biochem. Pharmacol. <u>7</u> , 88 (1961)	m.units/ml./serum

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URINE ANALYSIS

<input checked="" type="checkbox"/>	pH:	Bili-Labstix Reagent strips. (Ames Co.).	
<input type="checkbox"/>	Urine Volume:	Direct measurement.	mls.
<input checked="" type="checkbox"/>	Specific Gravity:	Refractometer. American Optical Co.	
<input checked="" type="checkbox"/>	Protein:	Bili-Labstix Reagent strips. (Ames Co.).	0 = negative 1 = trace to 30 mgs/100 ml. 2 = 30 to 100 mgs/ml. 3 = 100 to 300 mgs/ml. 4 = Over 300 mgs/ml.
<input checked="" type="checkbox"/>	Glucose:	Bili-Labstix Reagent strips. (Ames Co.).	0 = negative 1 = less than $\frac{1}{2}\%$ 2 = $\frac{1}{2}\%$ to $\frac{1}{2}\%$ 3 = more than $\frac{1}{2}\%$
<input checked="" type="checkbox"/>	Bilirubin:	Bili-Labstix Reagent strips. (Ames Co.).	0 = negative 1 = up to 0.2 mgs/100 ml. 2 = up to 0.5 mgs/100 ml. 3 = up to 1.0 mgs/100 ml. or more.
<input checked="" type="checkbox"/>	Ketones:	Bili-Labstix Reagent strips. (Ames Co.).	0 = negative 1 = Trace 2 = Moderate amount 3 = Large amount
<input checked="" type="checkbox"/>	Blood:	Bili-Labstix Reagent strips. (Ames Co.).	0 = negative 1 = Trace 2 = Moderate amount 3 = Large amount
<input checked="" type="checkbox"/>	Urine Sediment:	Centrifuged deposit.	1 = Few cells or crystals 2 = Moderate number of cells and crystals 3 = Many cells or crystals

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Terminal Studies

An autopsy examination was carried out on all animals.

The following organs were weighed:-

Adrenals	Liver	Spleen	Prostate/uterus
Kidneys	Gonads	Thyroids	Pituitary
Brain	Heart	Thymus	

Percentage organ weights were calculated with reference to brain weight.

The following organs and tissues were preserved for histopathological examination.

Adrenals	Aorta	Bone marrow
Brain	Colon	Eye (+ optic nerve)
Gonads	Gross lesions	Heart
Kidneys	Liver	Lungs
Lymph nodes (axillary & mesenteric)		Mammary gland
Muscle	Pancreas	Peripheral nerve (sciatic)
Pituitary	Prostate (or uterus)	Small intestine
Spleen	Spinal cord	Stomach
Thymus	Thyroids	Urinary bladder

Tissues were fixed in the following solutions:-

CNS and peripheral nerve	- 10% buffered formalin
Bone marrow	- Zenker formol
Other organs and tissues	- Bouins fluid
Thin liver slices	- Ice cold Rossmans fluid
Eyes	- Davidsons fluid

Sections were cut at 5 - 7 μ and stained with haematoxylin and eosin. Liver sections fixed in Rossmans fluid were stained by the PAS technique to show glycogen. Frozen sections from liver and kidney were stained with Sudan IV in propylene glycol for fat.

Quality Control

Quality control systems used in haematology and clinical chemistry were as follows:-

Hyland Q Pack control blood	
Chemonitor I	(Dade)
Chemonitor II	(Dade)
Enzatrol	(Dade)
Horse serum	(B.W. & Co.)
Quantiplat	(Diamed)

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Statistical Evaluation

Laboratory parameters and organ weight data were analysed by the Mann Whitney U test, in those cases where it was considered that meaningful results might be obtained.

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AVERAGE DAILY COMPOUND INTAKE

Group		Average daily intake of (b) (4) in mg/kg body weight during weeks:-						Average daily intake of (b) (4) over 13 weeks
		1	2	3	4	9	13	
1	♂	Nil	Nil	Nil	Nil	Nil	Nil	Nil
	♀	Nil	Nil	Nil	Nil	Nil	Nil	Nil
2	♂	22.81	24.80	25.59	23.94	27.03	26.87	26.66
	♀	25.53	25.31	25.96	27.70	27.02	24.83	26.71
3	♂	66.1	66.8	63.7	63.2	66.07	72.74	69.0
	♀	71.2	69.5	71.6	69.1	80.34	83.06	78.4
4	♂	150.29	140.62	137.60	198.63	155.26	140.11	149.77
	♀	161.94	148.8	154.51	192.64	154.23	145.51	154.71

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(b) (4)

TEST 4DC1 COMPOUND (b) (4) ROUTE DIET SPECIES DOG WK 13

SEX / GR.	MEAN BODYWEIGHTS IN KGS AT WEEK													
	0	1	2	3	4	5	6	7	8	9	10	11	12	13
M/1	13.3	13.4	13.4	13.6	13.5	13.6	14.0	14.1	14.2	14.1	14.4	14.2	14.4	14.2
M/2	12.9	12.9	13.0	13.0	13.0	12.9	13.3	13.2	13.4	13.3	13.4	13.6	13.5	13.4
M/3	13.1	13.2	13.1	13.0	13.0	12.9	13.0	13.1	13.2	13.1	13.1	13.1	13.1	13.4
M/4	12.5	12.0	11.5	11.0	10.9	10.9	10.8	12.0	11.7	11.9	12.1	12.3	12.6	12.6
F/1	11.0	11.0	11.0	10.9	11.1	11.0	11.3	11.3	11.4	11.5	11.7	11.8	12.0	11.8
F/2	10.8	10.9	10.9	11.0	11.2	11.1	11.1	11.1	11.1	11.2	11.3	11.5	11.5	11.5
F/3	10.6	10.6	10.6	10.5	10.6	10.6	10.6	10.7	11.0	10.8	11.0	11.0	11.7	11.6
F/4	10.3	9.8	9.3	9.0	8.9	8.7	8.7	9.9	9.8	9.8	9.9	9.7	9.7	9.9

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(b) (4)

13.

TEST 4001 COMPOUND (b) (4) ROUTE DIET SPECIES DOG WK 13

AN. NO.	INDIVIDUAL BODY WEIGHTS IN KGS											AT WEEK	
	0	1	2	3	4	5	6	7	8	9	10	11	12

SEX/GROUP M / 1 DOSE CONTROL

101	13.4	13.7	13.6	13.5	13.3	13.4	13.4	13.4	13.2	12.6	13.0	12.6	12.6	12.8
103	15.1	15.5	16.1	16.3	16.0	16.0	16.7	16.9	17.2	17.2	17.3	17.4	17.6	17.4
105	13.0	13.0	12.8	13.1	13.2	13.4	13.9	14.0	14.2	14.3	14.4	14.2	14.6	14.3
107	13.8	13.6	13.6	13.6	13.5	13.4	13.8	13.8	13.7	13.6	14.1	13.6	14.2	13.7
109	11.0	11.1	11.0	11.5	11.6	12.0	12.0	12.4	12.6	12.6	13.0	13.2	13.1	12.8

SEX/GROUP M / 2 DOSE 800 PPM

201	12.2	12.1	11.8	11.3	11.6	11.5	12.2	11.8	11.9	11.9	12.1	12.1	12.0	12.1
203	13.0	13.1	13.3	13.3	13.4	13.3	13.5	13.7	14.0	13.9	14.1	14.6	14.4	14.4
205	14.5	14.4	14.6	14.9	14.4	14.6	14.8	14.9	14.9	15.0	15.0	15.1	15.1	14.6
207	11.9	12.1	12.2	12.6	12.6	12.3	12.7	12.6	12.8	12.6	12.5	12.7	12.6	12.5

SEX/GROUP M / 3 DOSE 2600 PPM

301	12.4	12.6	12.6	12.3	12.4	11.8	12.6	12.4	12.4	12.3	12.7	12.9	13.0	13.3
303	12.9	13.1	12.6	12.8	12.4	12.4	12.8	12.9	13.2	12.9	12.6	12.6	12.4	12.6
305	13.6	13.5	13.4	13.3	13.5	13.5	13.3	13.3	13.5	13.6	13.6	13.5	13.6	13.9
307	13.5	13.6	13.7	13.6	13.6	13.9	13.5	13.7	13.8	13.6	13.6	13.6	13.6	13.8

SEX/GROUP M / 4 DOSE 8000 PPM

401	13.4	12.8	12.3	12.1	11.9	11.8	11.7	12.6	12.6	12.6	12.9	13.1	12.9	13.1
403	10.2	10.0	9.6	8.8	8.9	8.9	9.0	10.4	10.1	10.4	10.3	10.5	10.4	10.8
405	14.7	14.2	13.3	13.0	12.9	13.0	12.8	14.6	14.4	14.8	14.7	15.2	15.4	15.1
407	13.1	12.2	11.4	11.0	10.8	10.4	10.2	11.1	10.7	10.6	11.6	11.4	11.6	11.6
409	11.1	10.9	11.1	9.9	10.1	10.2	10.2	11.2	10.9	11.1	10.9	11.1	10.9	11.2

SEX/GROUP F / 1 DOSE CONTROL

102	12.9	12.9	12.8	12.7	12.9	12.5	12.8	12.9	12.9	12.7	12.6	12.5	12.8	12.7
104	9.6	9.9	10.0	9.9	10.1	10.2	10.6	10.8	10.9	11.1	11.5	11.3	11.8	11.6
106	9.5	9.1	9.4	9.2	9.3	9.6	9.6	9.6	9.8	9.7	10.0	9.9	9.9	10.0
108	13.0	12.8	12.5	12.3	12.6	12.3	12.9	12.6	12.8	13.2	13.5	14.0	14.4	13.9
110	10.2	10.2	10.4	10.2	10.5	10.6	10.7	10.5	10.6	10.8	11.0	11.1	11.3	10.9

SEX/GROUP F / 2 DOSE 800 PPM

202	9.6	9.6	9.4	9.2	9.4	9.3	9.6	9.7	9.7	9.7	9.6	10.1	9.8	9.8
204	11.0	11.1	11.1	11.4	11.4	11.3	11.1	11.0	10.7	11.1	11.2	11.3	11.7	11.9
206	12.3	12.4	12.6	12.8	12.9	12.9	13.2	13.3	13.2	13.5	13.9	14.0	13.5	13.7
208	10.3	10.5	10.5	10.8	11.0	10.8	10.6	10.5	10.7	10.6	10.6	10.7	10.9	10.8

SEX/GROUP F / 3 DOSE 2600 PPM

302	11.6	11.6	11.6	11.5	11.8	11.7	11.8	11.9	12.3	12.1	12.0	12.3	12.2	12.3
304	10.1	10.1	10.3	10.0	9.8	10.1	10.2	10.2	10.1	9.9	10.1	10.0	12.2	12.2
306	11.6	11.5	11.9	11.9	12.2	12.0	12.1	12.3	12.7	12.5	12.8	12.6	12.8	12.5
308	9.1	9.2	8.7	8.5	8.6	8.5	8.3	8.6	9.0	8.9	9.1	9.1	9.5	9.5

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(b) (4)

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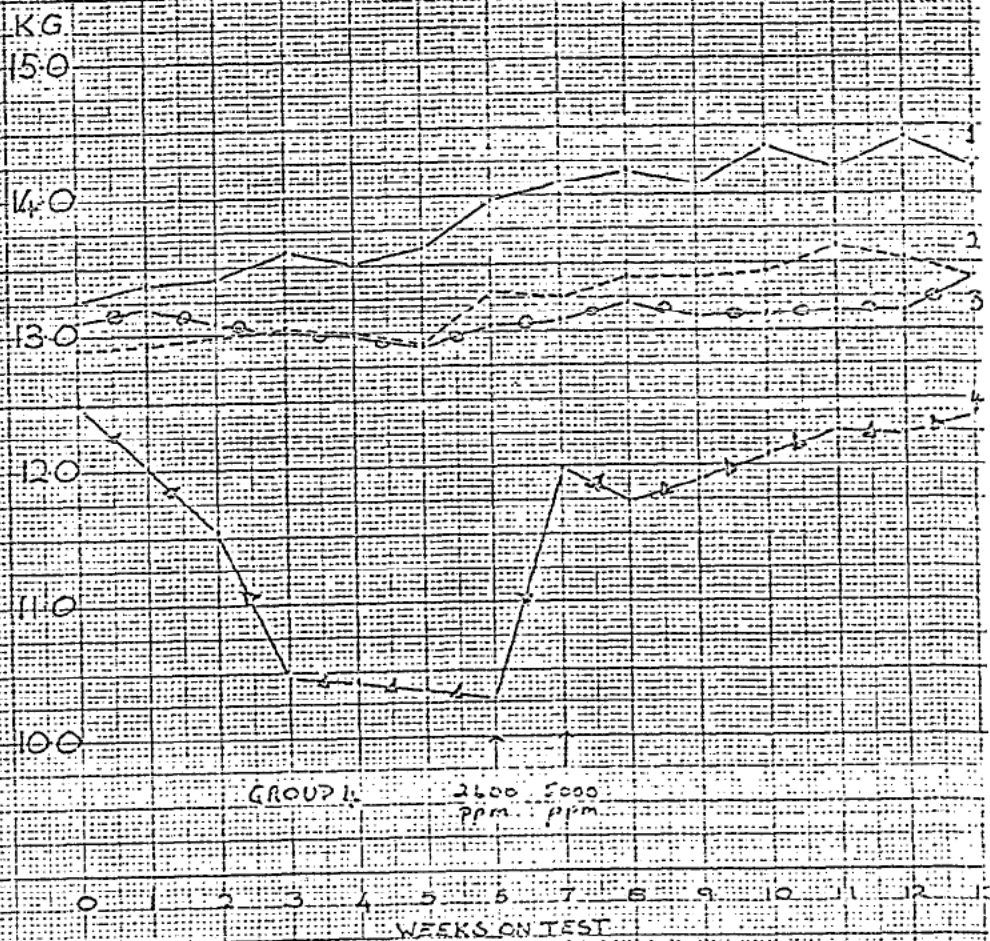
TEST	4D01	COMPOUND	(b) (4)	ROUTE	DIET	SPECIES	DOG	WK	13					
AN.	INDIVIDUAL	B O D Y W E I G H T S					IN	KGS	AT	WEEK	12	13		
NO.	0	1	2	3	4	5	6	7	8	9	10	11	12	13
SEX/GROUP	F	/	4	DOSE	8000 PPM									
402	12.8	12.2	11.8	11.5	11.6	11.2	11.3	11.9	12.1	12.4	12.6	12.1	12.1	12.2
404	8.7	8.3	7.6	7.3	7.2	7.0	6.9	8.4	8.0	8.4	8.4	8.5	8.6	8.2
406	9.4	8.9	8.4	8.0	8.0	7.5	7.3	8.1	8.2	8.1	8.3	8.2	8.1	8.5
408	10.5	9.9	9.5	9.3	9.1	9.1	9.1	10.7	10.7	10.5	10.5	10.3	10.3	10.5
410	10.1	9.9	9.3	9.0	8.5	8.5	8.8	10.4	10.1	9.7	9.6	9.6	9.6	10.0

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(b) (4)

GROUP MEAN WEEKLY BODYWEIGHT ♂

GROUP 1	CONTROL	GROUP 1
GROUP 2	800 P.P.M.	GROUP 2
GROUP 3	2600 P.P.M.	GROUP 3
GROUP 4	8000 P.P.M.	GROUP 4



(b) (4)

GROUP MEAN WEEKLY BODYWEIGHT ♀

GROUP 1 CONTROL

GROUP 2 800 PPM

GROUP 3 2600 PPM

GROUP 4 8000 PPM

GROUP 1

GROUP 2

GROUP 3

GROUP 4

KG
130

120

110

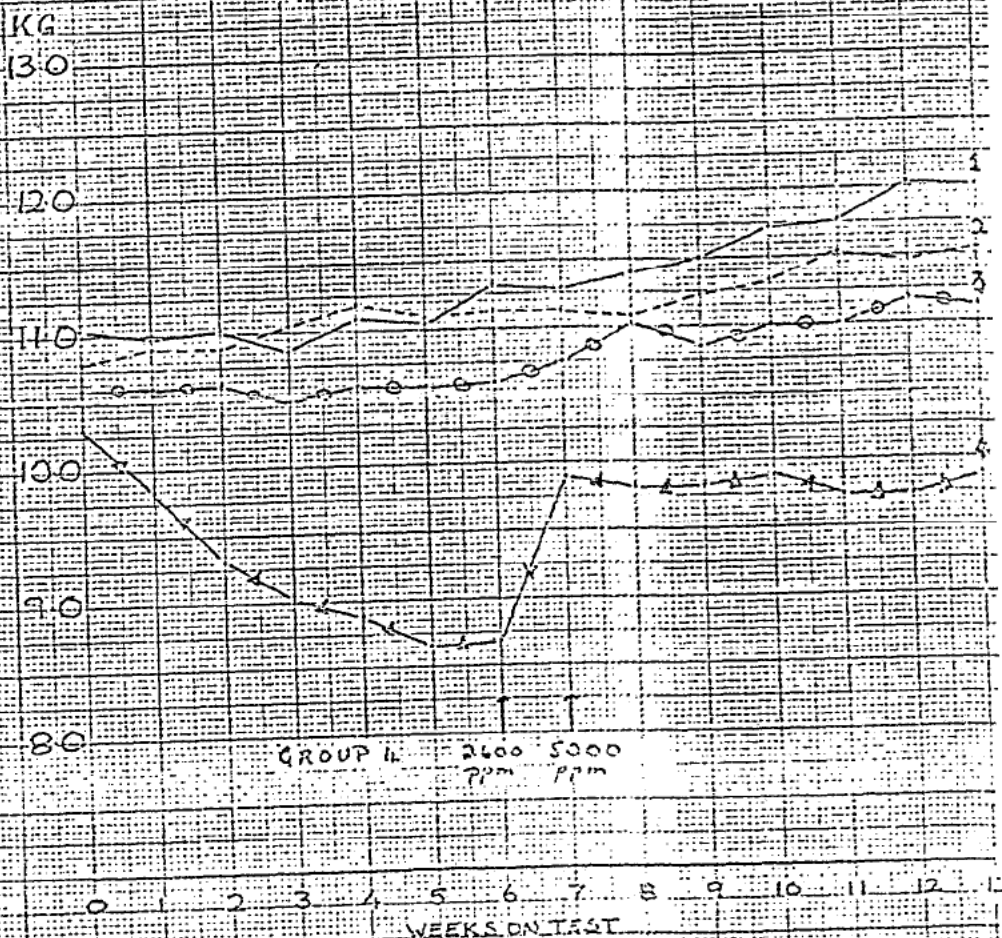
100

90

80

GROUP 11 2600 PPM 5000 PPM

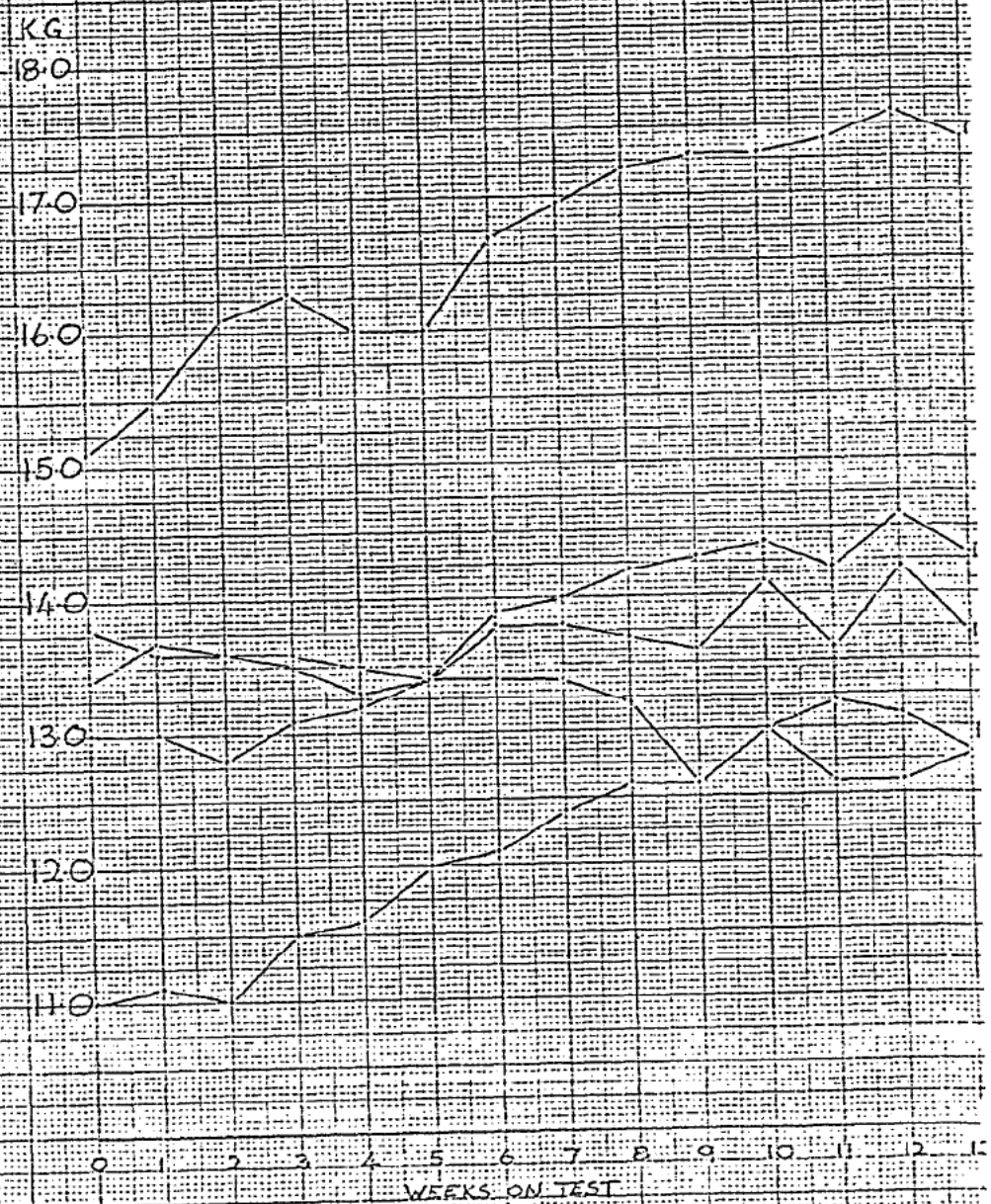
0 1 2 3 4 5 6 7 8 9 10 11 12 13
WEEKS ON TEST



000641

(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS ♂
GROUP I CONTROL



000642

(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS ♀

GROUP: CONTROL

KG

15.0

14.0

13.0

12.0

11.0

10.0

9.0

0

1

2

3

4

5

6

7

8

9

10

11

12

WEEKS ON TEST

000643

(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS ♂

GROUP 2 800RPM

KG

16.0

15.0

14.0

13.0

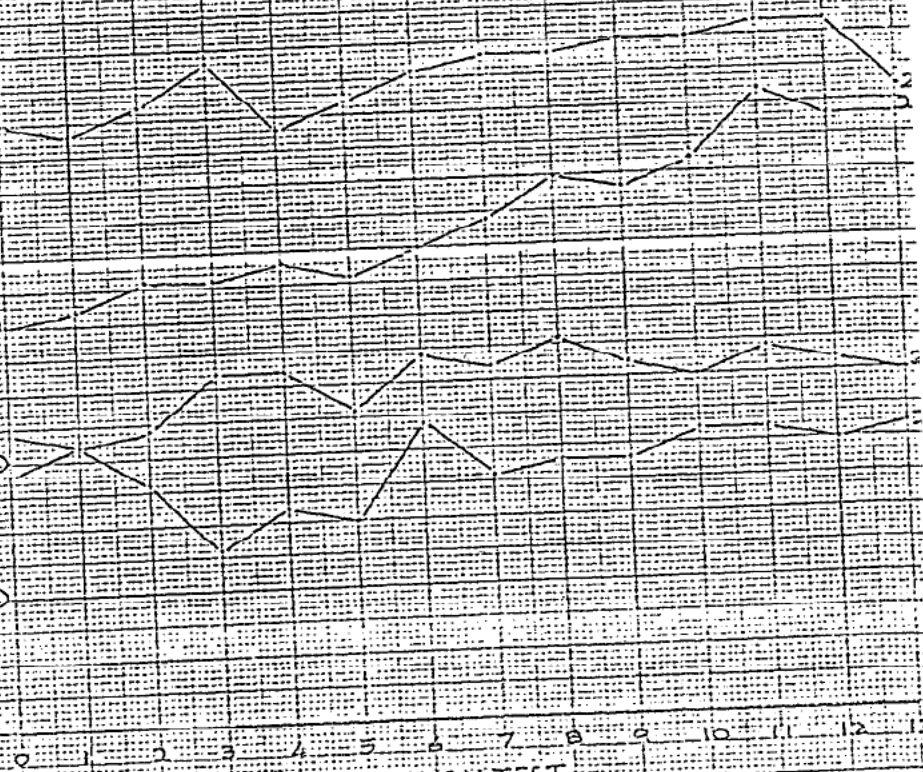
12.0

11.0

0 1 2 3 4 5 6 7 8 9 10 11 12 13

WEEKS ON TEST

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(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS ?

GROUP 2 800 PPM

KG

140

130

120

110

100

90

0

2

3

4

5

6

7

8

9

10

11

WEEKS ON TEST



(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS

GROUP 3 2600 Ppm

KG

140

130

120

110

0 1 2 3 4 5 6 7 8 9 10 11 12 13

WEEKS ON TEST

000646

(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS ♀

GROUP 3 2600 ppm

KG

130

120

110

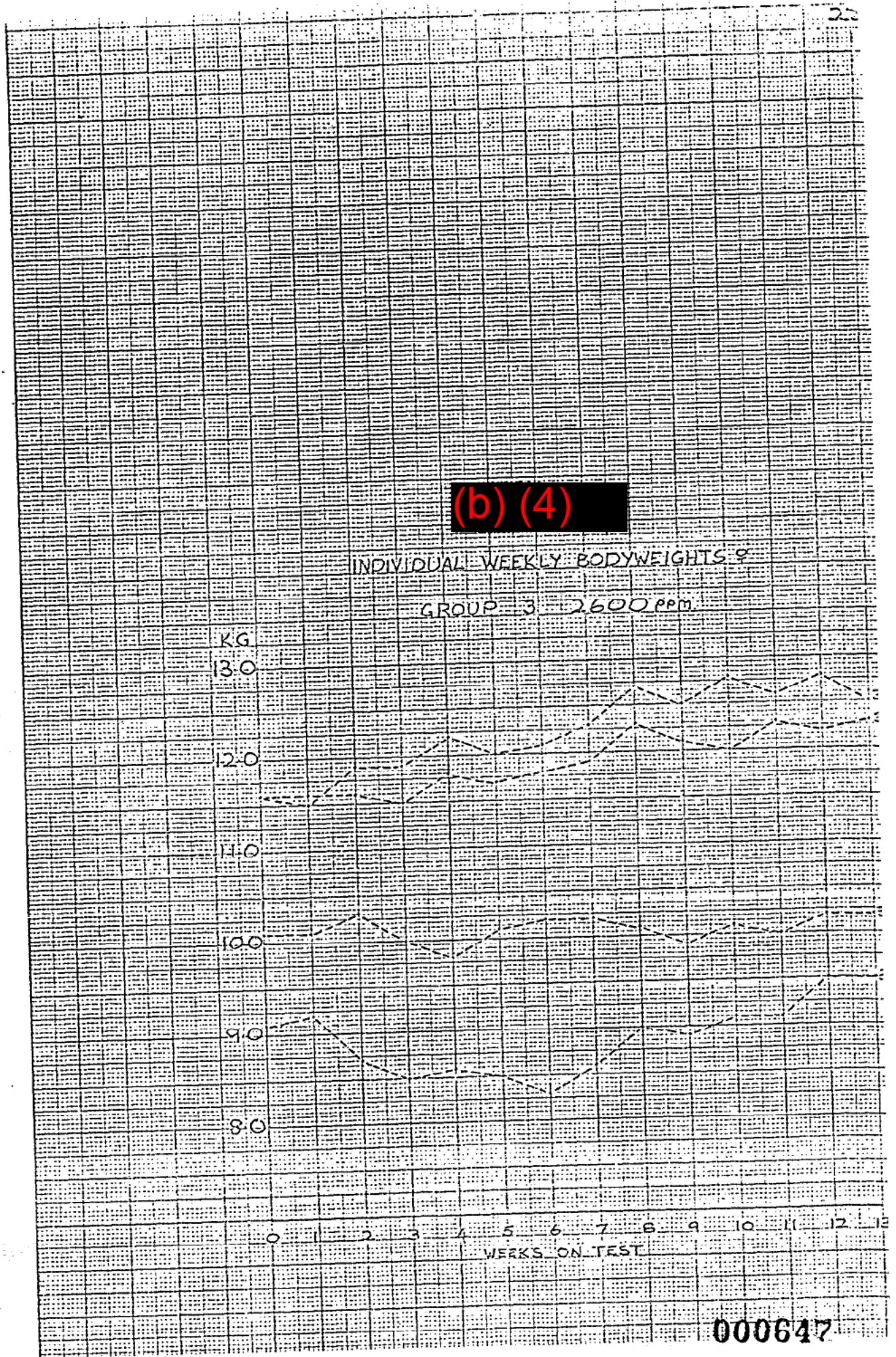
100

90

80

0 1 2 3 4 5 6 7 8 9 10 11 12 13
WEEKS ON TEST

000647



(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS

GROUP 4, 8000 PPM

KG.

16.0

15.0

14.0

13.0

12.0

11.0

10.0

9.0

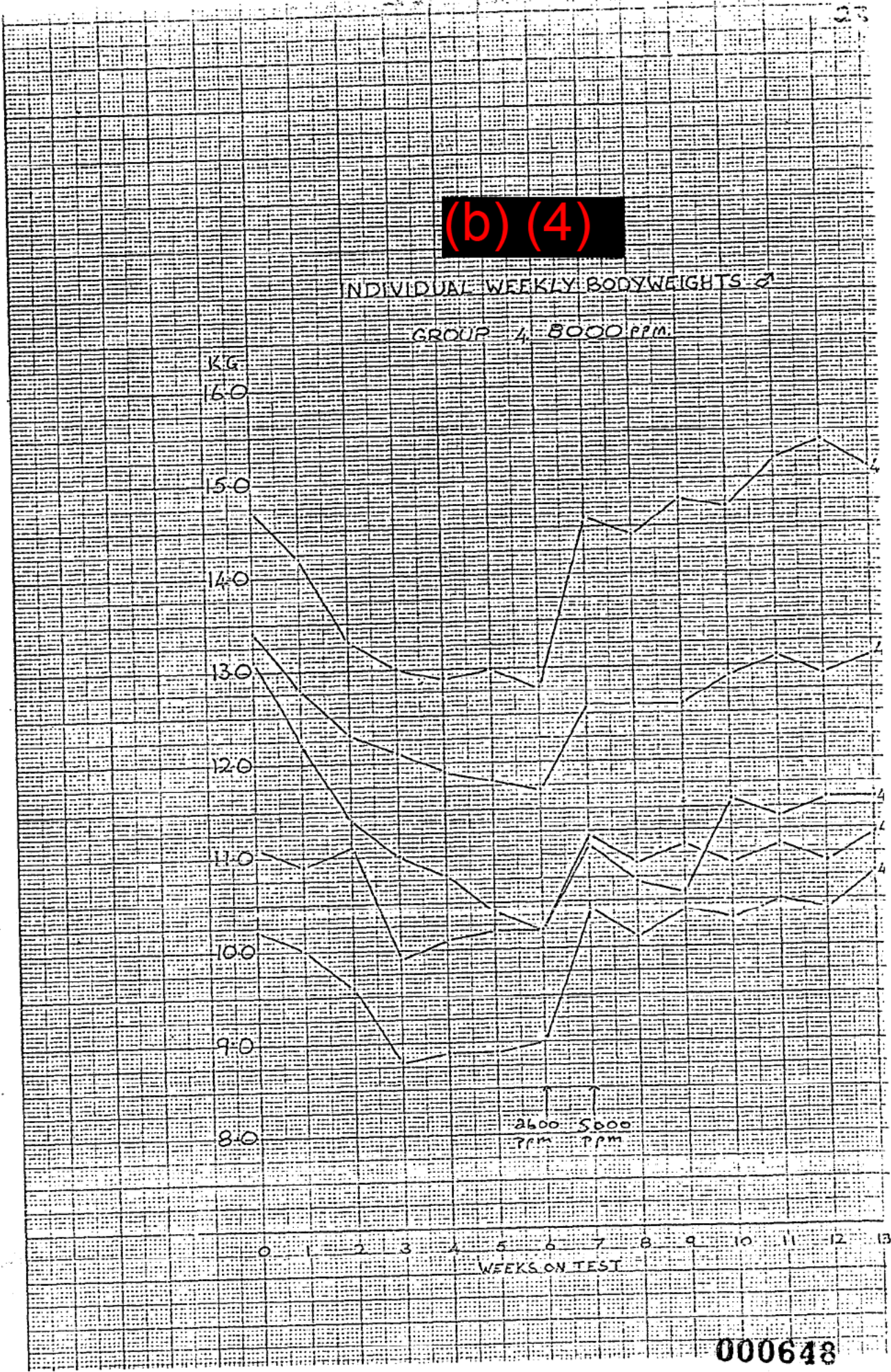
8.0

2600 PPM 5000 PPM

0 1 2 3 4 5 6 7 8 9 10 11 12 13

WEEKS ON TEST

000648



(b) (4)

INDIVIDUAL WEEKLY BODYWEIGHTS

GROUP 4 8000 ppm

KG

130

120

110

100

90

80

70

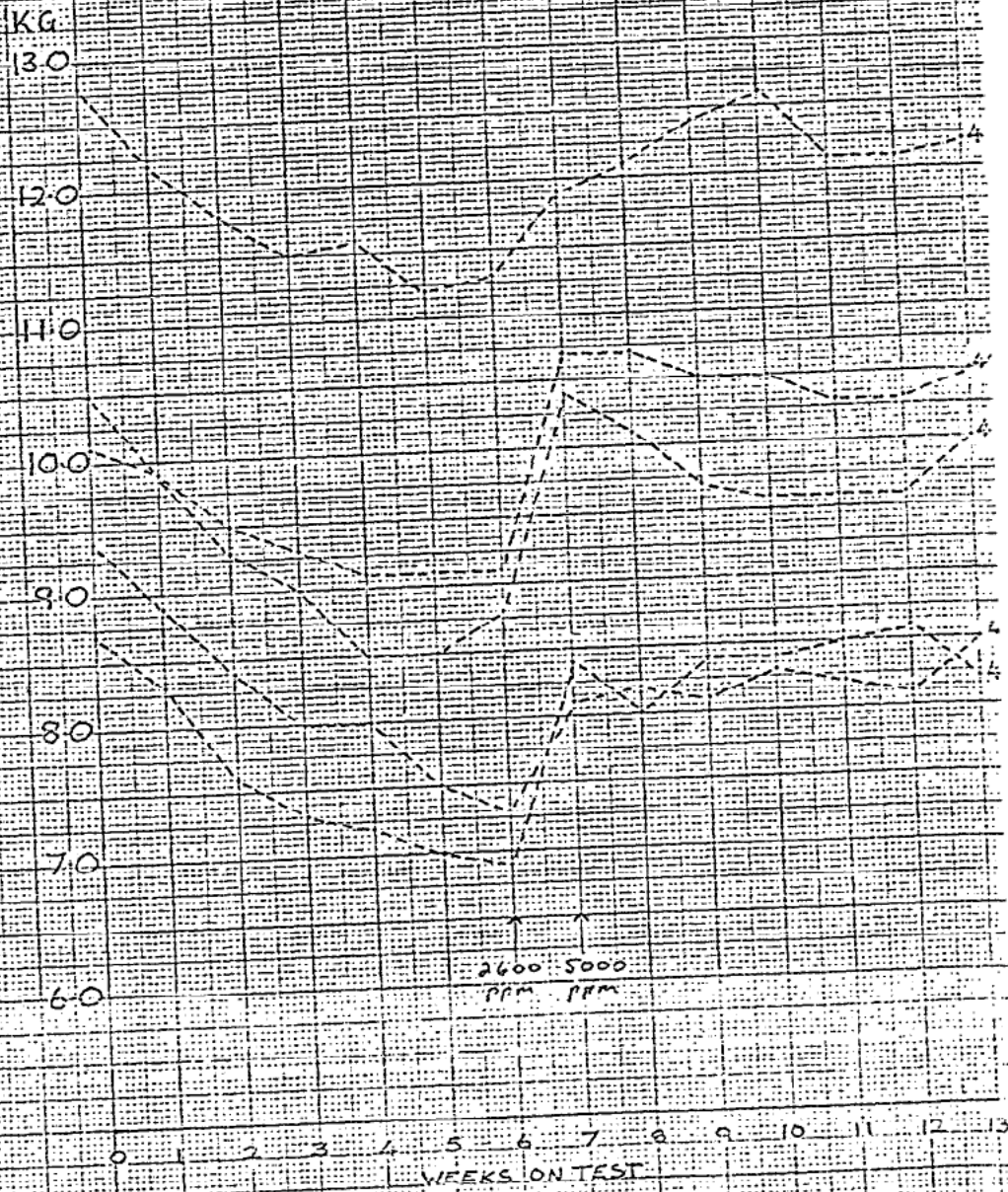
60

2600 ppm 5000 ppm

WEEKS ON TEST

0 1 2 3 4 5 6 7 8 9 10 11 12 13

000649



(b) (4)

TEST 4001		COMPOUND (b) (4)		ROUTE	DIET	SPECIES	DOG	WK		13				
SEX /	M E A N			FOOD CONSUMPTION				IN		KGS	AT		WEEK	
GR.	0	1	2	3	4	5	6	7	8	9	10	11	12	13
M/1	2.94	2.87	2.83	2.72	2.55	2.67	3.25	3.05	3.12	2.96	3.25	3.26	3.30	2.74
M/2	2.73	2.56	2.80	2.92	2.70	3.16	3.05	2.98	3.44	3.12	3.43	3.39	3.36	3.16
M/3	2.55	2.34	2.35	2.22	2.20	2.36	2.34	2.35	2.67	2.33	2.55	2.54	2.69	2.66
M/4	2.48	1.57	1.41	1.31	1.90	1.62	1.64	3.19	2.33	2.57	2.48	2.61	2.43	2.41
F/1	2.20	2.50	2.55	2.47	2.59	2.37	2.30	2.47	2.84	2.46	2.53	2.63	2.51	2.3
F/2	2.33	2.41	2.37	2.53	2.75	2.87	2.39	2.41	2.47	2.66	2.96	2.97	2.63	2.5
F/3	2.17	2.03	2.01	2.03	1.98	2.21	2.36	2.31	2.43	2.35	2.38	2.50	2.83	2.4
F/4	2.38	1.38	1.21	1.21	1.46	1.25	1.29	2.86	2.12	2.11	2.06	1.90	1.86	1.9

000650

(b) (4)

TEST 4001	COMPOUND	(b) (4)											ROUTE	DIET	SPECIES	DOG	WK	13
AN. NO.	INDIVIDUAL	FOOD CONSUMPTION											IN	KGS	AT	WEEK		
	0	1	2	3	4	5	6	7	8	9	10	11	12	13				
SEX/GROUP M / 1 DOSE CONTROL																		
101	2.33	2.57	2.38	2.15	2.33	2.49	2.78	2.67	2.42	2.43	3.37	3.06	3.51	2.93				
103	4.30	3.70	3.70	3.49	1.71	2.44	3.47	3.33	3.39	3.74	3.12	3.30	3.17	2.37				
105	2.08	2.43	1.95	2.46	2.38	2.36	3.20	2.88	3.09	2.61	2.66	2.93	3.03	2.62				
107	3.00	2.80	3.03	2.64	3.29	2.84	3.20	2.74	2.95	3.06	2.92	2.98	3.73	2.55				
109	2.99	2.87	3.08	2.87	3.03	3.23	3.59	3.61	3.73	2.97	4.20	4.01	3.07	3.24				
SEX/GROUP M / 2 DOSE 800 PPM																		
201	2.22	2.57	2.10	2.44	2.68	2.82	2.79	2.90	2.97	3.11	3.02	2.92	3.03	2.60				
203	2.82	2.28	2.65	2.50	2.04	2.55	2.66	2.71	2.76	2.35	2.89	2.92	2.69	2.77				
205	3.02	2.53	2.88	3.65	2.67	3.70	4.20	3.45	4.20	3.38	3.94	4.20	4.00	4.20				
207	2.85	2.87	3.58	3.11	3.40	3.59	2.57	2.85	3.83	3.65	3.87	3.54	3.73	3.07				
SEX/GROUP M / 3 DOSE 2600 PPM																		
301	2.49	2.65	2.14	2.13	2.04	1.90	2.36	1.85	2.42	2.13	2.69	2.41	2.65	2.52				
303	3.48	2.60	2.74	2.72	2.37	2.81	2.74	2.72	3.34	2.61	2.82	3.12	3.32	3.32				
305	2.20	2.00	2.37	2.00	2.36	2.29	2.18	2.70	2.60	2.50	2.45	2.43	2.53	2.31				
307	2.05	2.11	2.14	2.04	2.04	2.43	2.07	2.12	2.32	2.08	2.28	2.22	2.27	2.27				
SEX/GROUP M / 4 DOSE 8000 PPM																		
401	2.81	1.57	1.41	1.48	1.99	1.69	1.90	3.35	2.95	2.65	2.80	2.96	2.42	2.54				
403	1.87	1.47	1.49	1.09	1.58	1.25	1.48	2.85	1.88	2.27	2.02	1.97	1.78	1.92				
405	2.73	1.82	1.52	1.24	2.23	1.87	1.86	3.54	2.61	3.00	2.72	3.28	2.87	2.65				
407	3.05	1.55	1.41	1.40	1.88	1.67	1.27	3.05	2.17	2.78	2.84	2.70	2.80	2.74				
409	1.93	1.46	1.22	1.36	1.82	1.62	1.70	3.16	2.06	2.15	2.04	2.14	2.30	2.22				
SEX/GROUP F / 1 DOSE CONTROL																		
102	2.54	2.54	2.37	2.48	2.50	2.20	2.68	2.67	3.27	2.21	2.33	2.52	2.62	2.21				
104	2.15	2.12	1.87	1.82	2.05	2.48	2.23	2.21	2.80	2.22	2.23	2.48	2.49	2.18				
106	1.50	1.50	1.75	1.79	1.89	2.37	1.86	1.71	2.01	1.68	2.01	2.14	2.16	2.08				
108	2.50	2.65	3.26	2.89	3.32	2.88	2.43	3.08	2.99	3.24	3.16	3.30	3.09	3.13				
110	2.30	3.70	4.05	3.39	3.18	1.90	2.28	2.67	3.12	2.93	2.93	2.72	2.17	2.12				
SEX/GROUP F / 2 DOSE 800 PPM																		
202	2.18	2.34	2.03	1.95	2.11	1.97	2.15	2.14	2.01	1.91	1.92	2.04	1.95	1.82				
204	2.56	2.31	2.34	2.38	2.18	2.86	2.55	2.84	2.71	3.00	3.88	3.92	3.43	3.08				
206	2.78	2.40	2.71	3.30	4.12	2.94	2.59	2.56	2.58	3.09	3.19	2.91	2.36	2.58				
208	1.82	2.61	2.40	2.49	2.59	3.72	2.29	2.10	2.59	2.66	2.85	3.03	2.80	2.55				
SEX/GROUP F / 3 DOSE 2600 PPM																		
302	2.58	2.13	2.28	2.27	1.99	2.43	2.14	2.49	2.46	2.34	2.42	2.50	2.25	2.08				
304	2.30	1.88	2.09	2.07	1.89	2.39	2.90	2.41	2.40	2.44	2.36	2.44	3.04	2.93				
306	1.96	2.42	2.33	2.34	2.52	2.48	2.95	2.56	2.89	2.37	2.3							
306	1.96	2.42	2.33	2.34	2.52	2.48	2.95	2.56	2.89	2.87	2.68	3.02	3.87	2.82				
308	1.86	1.71	1.33	1.45	1.52	1.54	1.47	1.79	1.97	1.75	2.06	2.04	2.17	1.99				

(b) (4)

TEST 4D01	COMPOUND	(b) (4)	ROUTE	DIET	SPECIES	DOG	WK								
AN. NO.	INDIVIDUAL	0	1	2	FOOD CONSUMPTION	3	4	5	6	7	8	9	10	11	12
SEX/GROUP		M / 1			DOSE	CONTROL									
101	2.33	2.57	2.38	2.15	2.33	2.49	2.78	2.67	2.42	2.43	3.37	3.06	3.5		
103	4.30	3.70	3.70	3.49	1.71	2.44	3.47	3.33	3.39	3.74	3.12	3.30	3.1		
105	2.08	2.43	1.95	2.46	2.38	2.36	3.20	2.88	3.09	2.61	2.66	2.93	3.0		
107	3.00	2.80	3.03	2.64	3.29	2.84	3.20	2.74	2.95	3.06	2.92	2.98	3.7		
109	2.99	2.87	3.08	2.87	3.03	3.23	3.59	3.61	3.73	2.97	4.20	4.01	3.0		
SEX/GROUP		M / 2			DOSE	800 PPM									
201	2.22	2.57	2.10	2.44	2.68	2.82	2.79	2.90	2.97	3.11	3.02	2.92	3.0		
203	2.82	2.28	2.65	2.50	2.04	2.55	2.66	2.71	2.76	2.35	2.89	2.92	2.6		
205	3.02	2.53	2.88	3.65	2.67	3.70	4.20	3.45	4.20	3.38	3.94	4.20	4.0		
207	2.85	2.87	3.58	3.11	3.40	3.59	2.57	2.85	3.83	3.65	3.87	3.54	3.7		
SEX/GROUP		M / 3			DOSE	2600 PPM									
301	2.49	2.65	2.14	2.13	2.04	1.90	2.36	1.85	2.42	2.13	2.69	2.41	2.6		
303	3.48	2.60	2.74	2.72	2.37	2.81	2.74	2.72	3.34	2.61	2.82	3.12	3.3		
305	2.20	2.00	2.37	2.00	2.36	2.29	2.18	2.70	2.60	2.50	2.45	2.43	2.5		
307	2.05	2.11	2.14	2.04	2.04	2.43	2.07	2.12	2.32	2.08	2.28	2.22	2.2		
SEX/GROUP		M / 4			DOSE	8000 PPM									
401	2.81	1.57	1.41	1.48	1.99	1.69	1.90	3.35	2.95	2.65	2.80	2.96	2.4		
403	1.87	1.47	1.49	1.09	1.58	1.25	1.48	2.85	1.88	2.27	2.02	1.97	1.7		
405	2.73	1.82	1.52	1.24	2.23	1.87	1.86	3.54	2.61	3.00	2.72	3.28	2.8		
407	3.05	1.55	1.41	1.40	1.88	1.67	1.27	3.05	2.17	2.78	2.84	2.70	2.5		
409	1.93	1.46	1.22	1.36	1.82	1.62	1.70	3.16	2.06	2.15	2.04	2.14	2.3		
SEX/GROUP		F / 1			DOSE	CONTROL									
102	2.54	2.54	2.37	2.48	2.50	2.20	2.68	2.67	3.27	2.21	2.33	2.52	2.6		
104	2.15	2.12	1.87	1.82	2.05	2.48	2.23	2.21	2.80	2.22	2.23	2.48	2.4		
106	1.50	1.50	1.75	1.79	1.89	2.37	1.86	1.71	2.01	1.68	2.01	2.14	2.1		
108	2.50	2.65	3.26	2.89	3.32	2.88	2.43	3.08	2.99	3.24	3.16	3.30	3.0		
110	2.30	3.70	4.05	3.39	3.18	1.90	2.28	2.67	3.12	2.93	2.93	2.72	2.1		
SEX/GROUP		F / 2			DOSE	800 PPM									
202	2.18	2.34	2.03	1.95	2.11	1.97	2.15	2.14	2.01	1.91	1.92	2.04	1.9		
204	2.56	2.31	2.34	2.38	2.18	2.86	2.55	2.84	2.71	3.00	3.98	3.92	3.4		
206	2.78	2.40	2.71	3.30	4.12	2.94	2.59	2.56	2.58	3.09	3.19	2.91	2.3		
208	1.82	2.61	2.40	2.49	2.59	3.72	2.29	2.10	2.59	2.66	2.85	3.03	2.8		
SEX/GROUP		F / 3			DOSE	2600 PPM									
302	2.58	2.13	2.28	2.27	1.99	2.43	2.14	2.49	2.46	2.34	2.42	2.50	2.2		
304	2.30	1.88	2.09	2.07	1.89	2.39	2.90	2.41	2.40	2.44	2.36	2.44	3.0		
306	1.96	2.42	2.33	2.34	2.52	2.48	2.95	2.56	2.89	2.87	2.3				
306	1.96	2.42	2.33	2.34	2.52	2.48	2.95	2.56	2.89	2.87	2.68	3.02	3.8		
308	1.86	1.71	1.33	1.45	1.52	1.54	1.47	1.79	1.97	1.75	2.06	2.04	2.1		

000651

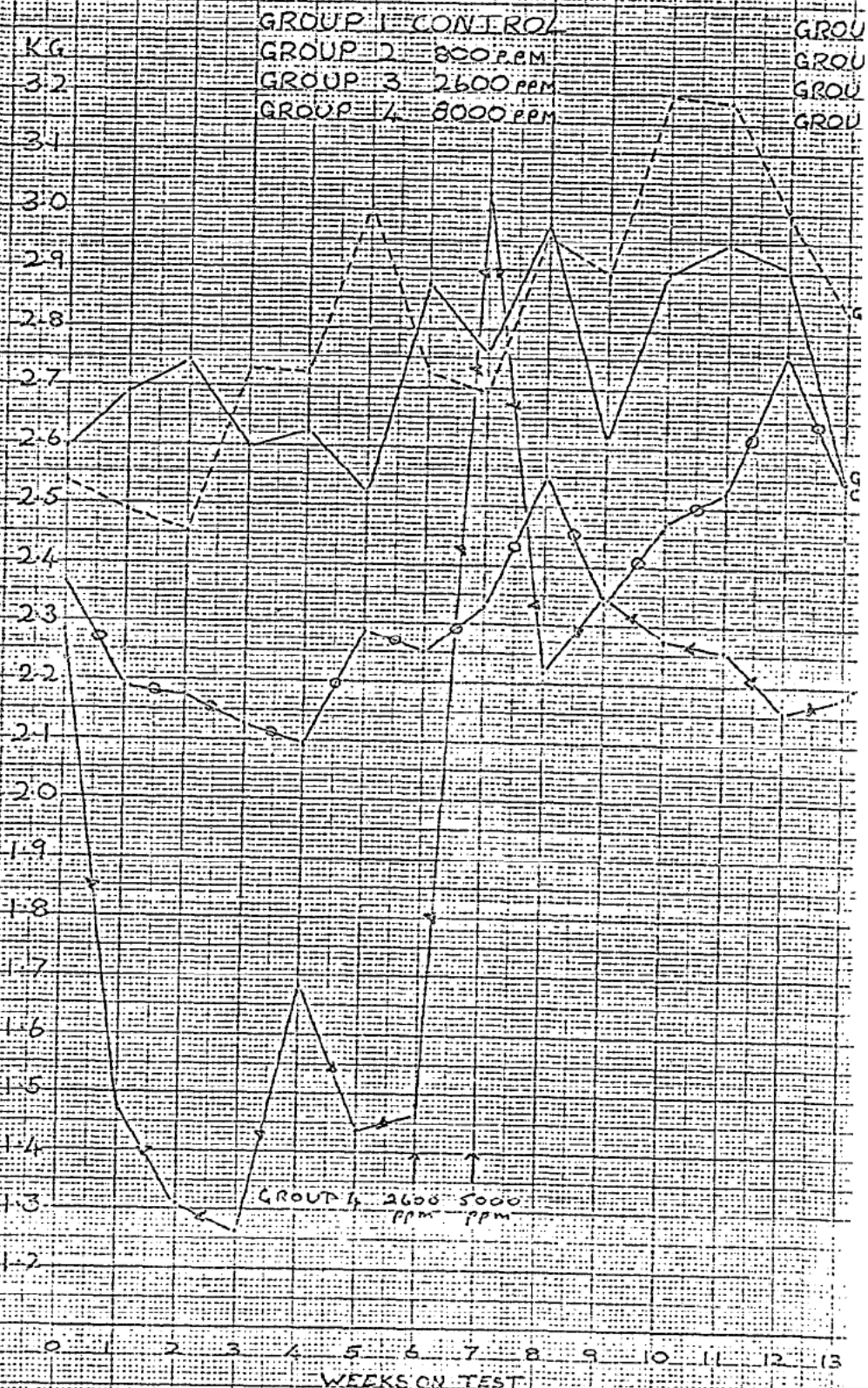
(b) (4)

TEST	4001	COMPOUND	(b) (4)	ROUTE	DIET	SPECIES	DOG	WK	13					
AN.	INDIVIDUAL	FOOD CONSUMPTION	IN	KGS	AT	WEEK								
NO.	0	1	2	3	4	5	6	7	8	9	10	11	12	13
SEX/GROUP	F	/	4	DOSE	8000	PPM								
402	2.60	1.53	1.36	1.49	1.76	1.15	1.24	3.12	2.34	2.59	2.25	1.82	1.98	1.93
404	2.20	1.47	1.17	1.26	1.81	1.52	1.49	2.92	1.97	2.02	2.30	2.26	2.40	2.18
406	2.04	0.95	0.83	0.83	1.10	0.74	0.70	2.00	1.54	1.52	1.53	1.68	1.57	1.66
408	1.63	1.13	1.11	1.08	1.27	1.29	1.35	2.67	2.14	1.87	1.81	1.43	1.47	1.71
410	1.95	1.83	1.59	1.39	1.37	1.57	1.66	3.60	2.60	2.57	2.41	2.31	1.89	2.27

000653

(b) (4)

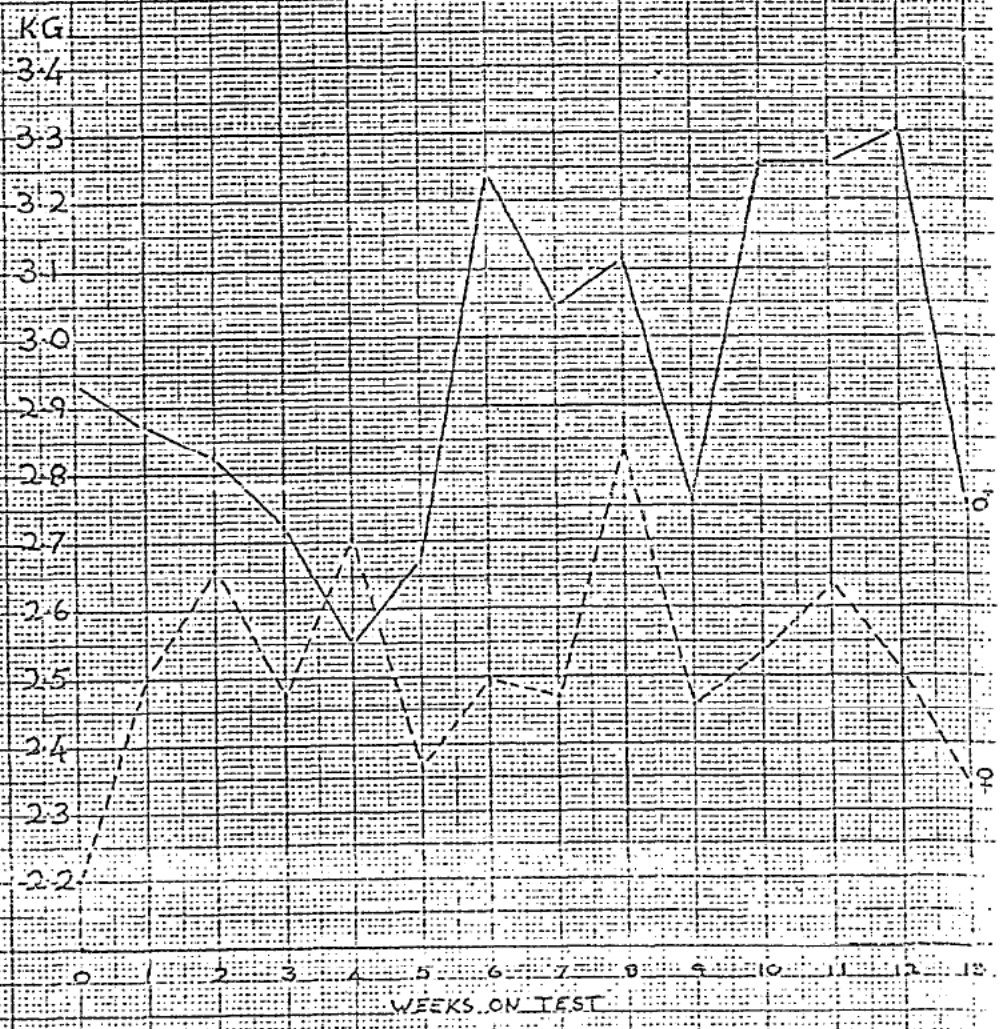
GROUP MEAN WEEKLY FOOD INTAKE



000654

(b) (4)

MEAN WEEKLY FOOD INTAKE
GROUP 1 CONTROL

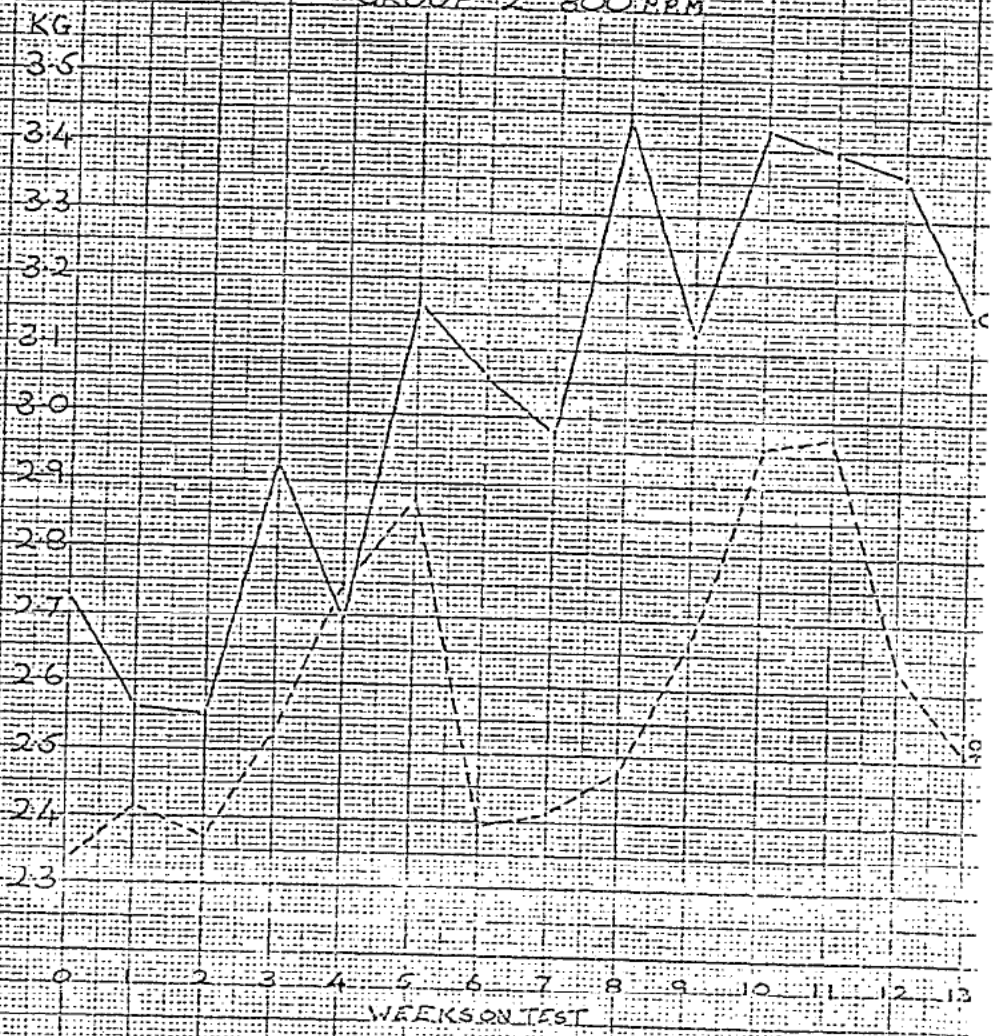


000655

(b) (4)

MEAN WEEKLY FOOD INTAKE

GROUP 2 800 PPM



000656

(b) (4)

MEAN WEEKLY FOOD INTAKE

GROUP 3 2600 PPM

KG

29

28

27

26

25

24

23

22

21

20

19

0

1

2

3

4

5

6

7

8

9

10

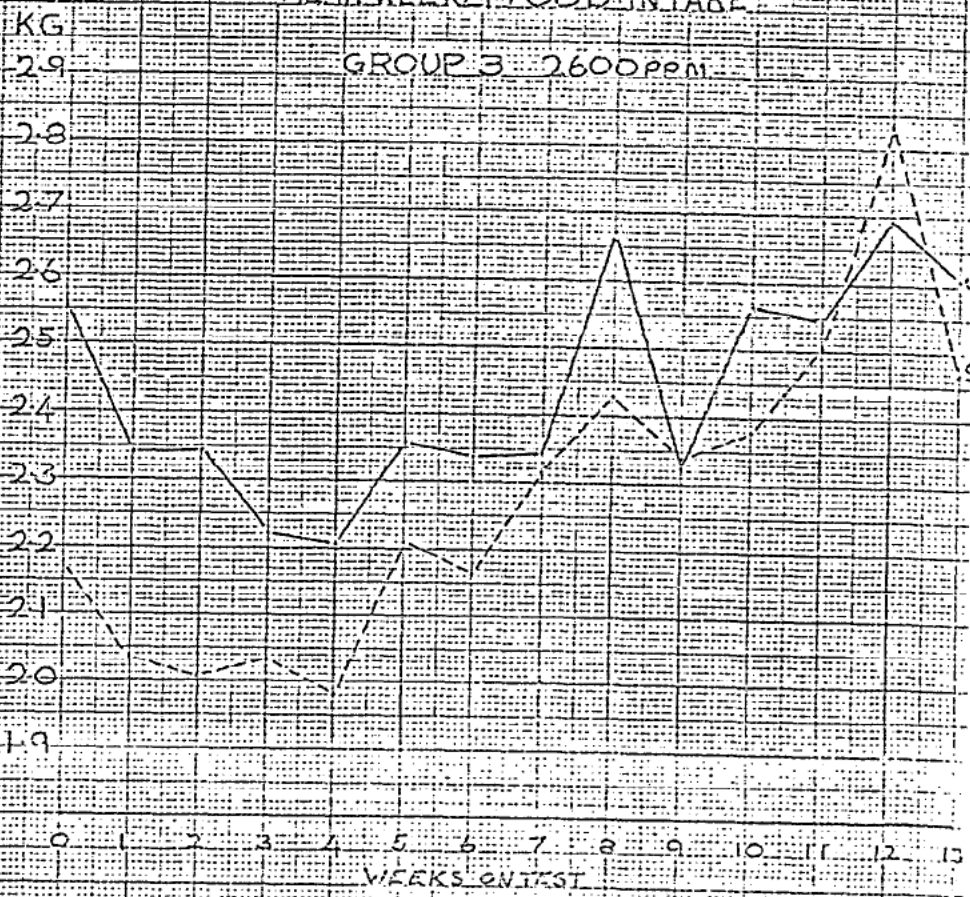
11

12

13

WEEKS ON TEST

000657



(b) (4)

MEAN WEEKLY FOOD INTAKE

GROUP 1, 5000 PPM

KG

3.2

3.1

3.0

2.9

2.8

2.7

2.6

2.5

2.4

2.3

2.2

2.1

2.0

1.9

1.8

1.7

1.6

1.5

1.4

1.3

1.2

0

1

2

3

4

5

6

7

8

9

10

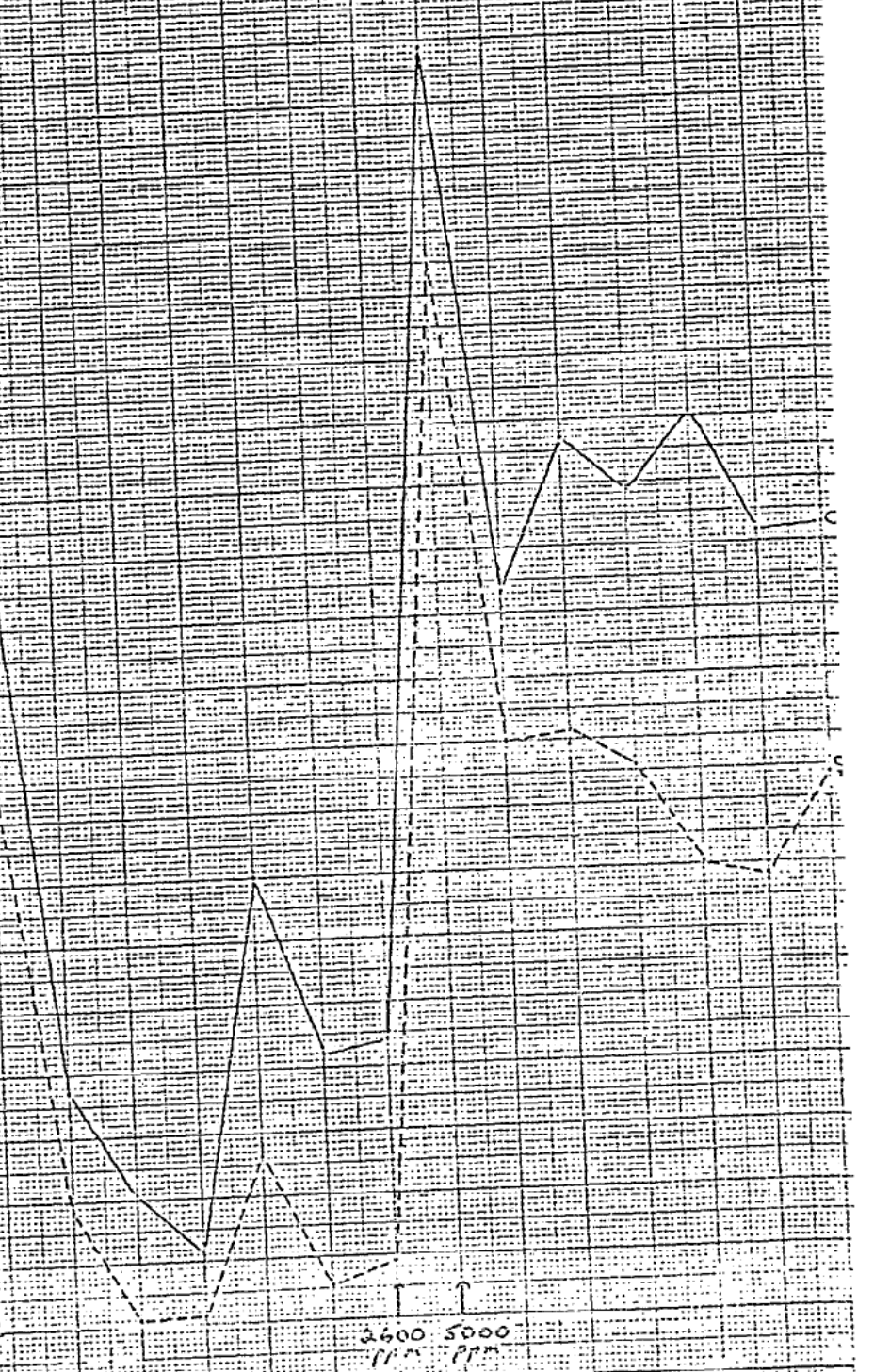
11

12

WEEKS ON TEST

2600 5000
PPM PPM

000658



HAEMATOLOGY

Code:-

HB	=	Haemoglobin
RBC	=	Erythrocytes
PCV	=	Packed cell volume
PL	=	Platelets
WBC	=	Total white cell count
N	=	Neutrophils
L	=	Lymphocytes
E	=	Eosinophils
B	=	Basophils
M	=	Monocytes
PRO TIME	=	Prothrombin time
ESR	=	Erythrocyte sedimentation rate

000659

TEST No. 4D01		0 TH WEEK				COMPOUND (b) (4)		Route Diet		SPECIES Dog					
Dose Group	No. Sex	Hb	RBC 10 ⁶ /cmm.	PCV %	Retic %	Plate 10 ³ /cmm.	WBC 10 ³ /cmm.	Differential %					Pro. Time secs.	ESR mm.	
								N	L	E	B	M		1 hrs.	2 hrs.
1	♂	15.8	6.41	46	<2.0	422	13.4	60	38	1	0	0	8.7	1	1
2		16.8	6.83	47	<2.0	473	14.0	61	36	3	0	0	7.7	1	1
3		17.0	6.70	48	<2.0	382	13.3	54	44	2	0	0	8.3	1	1
4		16.1	6.63	46	<2.0	327	10.7	60	38	2	0	0	7.7	1	2
1	♀	16.5	6.56	47	<2.0	383	11.9	63	34	3	0	0	8.0	1	2
2		16.5	6.55	46	<2.0	362	15.4	57	40	4	0	0	7.6	1	2
3		17.3	7.02	50	<2.0	346	12.0	62	33	5	0	0	8.0	1	1
4		16.5	6.75	47	<2.0	385	13.2	57	39	3	0	0	8.2	1	1
1	♂ + ♀	16.2	6.48	46	<2.0	402	12.6	61	36	2	0	0	8.3	1	2
2		16.6	6.69	47	<2.0	417	14.7	59	38	3	0	0	7.6	1	2
3		17.2	6.86	49	<2.0	364	12.7	58	38	4	0	0	8.2	1	1
4		16.3	6.69	47	<2.0	356	11.9	59	39	2	0	0	7.9	1	1

HAEMATOLOGY
GROUP MEANS

000660

TEST No. 4001		5 th WEEK				COMPOUND	(b) (4)	ROUTE DIET					SPECIES DOG		
Dose Group	No. Sex	Iib	RBC 10 ⁶ /cmm.	PCV %	Retics %	Plate 10 ³ /cmm.	WBC 10 ³ /cmm.	Differential %					Pro. Time secs.	ESR mm.	
								N	L	E	B	M		1 hrs.	2 hrs.
1	♂	15.5	6.02	45	<2.0	425	16.0	65	32	2	0	0	7.8	1	3
2		15.7	6.36	46	<2.0	450	16.9	66	32	2	0	1	8.5	2	3
3		15.5	6.29	45	<2.0	452	17.7	66	30	4	0	1	8.3	9	17
4		15.6	6.07	44	<2.0	427	17.7	65	32	2	0	0	8.5	6	16
1	♀	16.6	6.76	48	<2.0	409	18.2	61	36	4	0	0	8.2	1	1
2		16.2	6.72	47	<2.0	377	16.2	61	36	3	0	1	8.7	2	5
3		15.3	5.95	45	<2.0	405	13.9	59	39	2	0	1	8.2	2	4
4		14.8*	5.85*	44*	<2.0	415	17.6	64	33	3	0	1	8.7	6	17
1	♂ + ♀	16.1	6.39	47	<2.0	417	17.1	63	34	3	0	0	8.0	1	2
2		16.0	6.54	46	<2.0	413	16.5	63	34	2	0	1	8.6	2	4
3		15.4	6.12	45	<2.0	429	15.8	62	34	3	0	1	8.3	5	10
4		15.2	5.96	44*	<2.0	421	17.7	65	32	3	0	1	8.6	6**	17**

GROUP MEANS
HAEMATOLOGY

000661

TEST No. 4001		9 TH WEEK				COMPOUND (b) (4)		Route Diet					SPECIES		
Dose Group	No. Sex	Hb	RBC 10 ⁶ /cmm.	PCV %	Retic %	Plate 10 ³ /cmm.	WBC 10 ³ /cmm.	Differential %					Pro. Time secs.		
									N	L	E	B		M	
1	♂	15.6	6.02	46	< 2.0	395	13.9		60	36	3	0	1		8.4
2		15.8	6.27	46	< 2.0	403	12.4		55	40	5	0	1		8.4
3		15.7	6.51	46	< 2.0	364	14.4		61	36	2	0	1		8.6
4		15.4	6.27	45	< 2.0	356	12.9		65	31	4	0	1		8.2
1	♀	16.5	6.72	48	< 2.0	367	11.7		53	40	6	0	1		8.5
2		16.5	6.92	48	< 2.0	424	12.2		62	36	1	0	1		8.5
3		16.5	7.05	48	< 2.0	402	12.9		60	36	4	0	0		8.3
4		14.9*	5.73*	43*	< 2.0	415	13.0		57	39	3	0	1		8.0
1	♂ + ♀	16.0	6.37	47	< 2.0	381	12.8		57	38	5	0	1		8.5
2		16.2	6.60	47	< 2.0	413	12.3		58	38	3	0	1		8.4
3		16.1	6.78	47	< 2.0	383	13.6		60	36	3	0	1		8.4
4		15.1*	6.00	44*	< 2.0	385	12.9		61	35	3	0	1		8.1

000662

TEST No. 4D01		13 TH WEEK				COMPOUND (b) (4)		Route Diet						SPECIES Dog		
Dose Group	No. Sex	Hb	RBC 10 ⁶ /cmm.	PCV %	Retic %	Plate 10 ³ /cmm.	WBC 10 ³ /cmm.	Differential %						Pro. Time secs.	ESR mm.	
								N	L	E	B	M	1 hrs.		2 hrs.	
1	♂	15.7	6.16	46	<2.0	401	16.0	58	39	2	0	1	8.4	1	2	
2		15.7	6.24	46	<2.0	343	14.8	58	40	2	0	1	8.4	1	2	
3		15.6	6.09	45	<2.0	362	14.6	59	38	2	0	1	8.2	2	4	
4		15.6	6.38	45	<2.0	361	15.5	61	36	2	0	1	8.2	3	7	
1	♀	16.6	6.67	47	<2.0	396	15.0	60	36	5	0	0	8.4	2	4	
2		16.9	7.00	48	<2.0	424	14.6	62	34	3	0	1	8.3	1	2	
3		16.9	7.07	49	<2.0	348	14.3	58	39	3	0	0	8.2	1	1	
4		15.2	6.01	43	<2.0	417	16.9	60	38	2	0	0	8.4	2	4	
1	♂ + ♀	16.1	6.41	47	<2.0	399	15.5	59	38	4	0	0	8.4	2	3	
2		16.3	6.62	47	<2.0	384	14.7	60	37	3	0	1	8.3	1	2	
3		16.2	6.58	47	<2.0	355	14.5	58	39	3	0	0	8.2	2	3	
4		15.4	6.19	44	<2.0	389	16.2	61	37	2	0	1	8.3	2	5	

HAEMATOLOGY
GROUP MEANS

000663

(b) (4)

GROUP M 1 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
101	16.5	6.94	47	<2.0	323	20.7	61
103	15.4	5.64	43	<2.0	550	14.1	60
105	16.9	6.85	48	<2.0	380	11.6	62
107	15.4	6.17	46	<2.0	426	8.3	59
109	15.0	6.45	45	<2.0	430	12.3	59
MEANS	15.8	6.41	46.	<2.0	422.	13.4	60.

(b) (4)

GROUP M 1 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
101	38	1	0	0	8.9	1	1
103	37	3	0	0	7.8	1	2
105	38	0	0	0	8.7	1	1
107	39	1	0	1	9.1	1	1
109	39	2	0	0	8.9	1	2
MEANS	38.	1.	0.	0.	8.7	1.	1.

000664

(b) (4)

GROUP F 1 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
102	16.5	6.33	46	<2.0	396	11.3	55
104	16.5	7.00	48.	<2.0	373	12.7	60
106	15.4	5.80	43	<2.0	336	11.3	65
108	18.0	7.04	51	<2.0	420	14.0	72
110	16.1	6.63	47	<2.0	390	10.0	61
MEANS	16.5	6.56	47.	<2.0	383.	11.9	63.

(b) (4)

GROUP F 1 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
102	43	2	0	0	9.3	1	3
104	37	3	0	0	7.3	1	1
106	33	2	0	0	8.2	1	2
108	22	6	0	0	7.4	1	1
110	37	2	0	0	7.6	1	1
MEANS	34.	3.	0.	0.	8.0	1.	2.

000665

(b) (4)

GROUP M 2 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
201	16.9	6.99	48	< 2.0	330	15.8	68
203	15.0	6.27	43	< 2.0	498	12.2	53
205	18.0	7.20	50	< 2.0	644	12.9	65
207	17.3	6.87	47	< 2.0	420	15.2	56
MEANS	16.8	6.83	47.	< 2.0	473.	14.0	61.

(b) (4)

GROUP M 2 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
201	31	2	0	0	7.3	1	1
203	42	5	0	0	7.3	1	2
205	33	1	0	1	8.7	1	1
207	39	5	0	0	7.5	1	1
MEANS	36.	3.	0.	0.	7.7	1.	1.

999000

AP

(b) (4)

GROUP F 2 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
202	18.0	7.35	50	<2.0	383	20.5	69
204	16.5	6.54	45	<2.0	420	14.4	43
206	14.6	5.60	42	<2.0	340	15.1	53
208	16.9	6.71	48	<2.0	304	11.7	62
MEANS	16.5	6.55	46.	<2.0	362.	15.4	57.

(b) (4)

GROUP F 2 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
202	27	4	0	0	6.7	2	4
204	54	3	0	0	8.7	1	1
206	46	1	0	0	8.2	1	2
208	31	6	0	1	6.7	1	1
MEANS	40.	4.	0.	0.	7.6	1.	2.

000667

41.

(b) (4)

GROUP M 3 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	H3	RBC	PCV	RETICS	PL	WBC	N
301	18.0	7.38	50	<2.0	336	13.3	56
303	15.4	6.00	44	<2.0	373	13.4	54
305	16.9	6.34	47	<2.0	457	13.6	56
307	18.0	7.07	50	<2.0	360	13.0	49
MEANS	17.1	6.70	48.	<2.0	382.	13.3	54.

(b) (4)

GROUP M 3 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
301	40	3	0	1.	7.6	1	1
303	45	1	0	0	7.5	1	1
305	42	2	0	0	9.2	1	1
307	48	3	0	0	9.1	2	2
MEANS	44.	2.	0.	0.	8.3	1.	1.

000668

(b) (4)

GROUP F 3 TEST 4D01 OTH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

N.	H8	RBC	PCV	RETICS	PL	WBC	N
302	17.3	6.92	50	<2.0	370	11.5	60
304	17.3	7.26	51	<2.0	287	12.4	48
306	16.9	6.88	48	<2.0	346	12.5	65
308	17.6	7.02	49	<2.0	380	11.7	75
MEANS	17.3	7.02	50	<2.0	346	12.0	62

(b) (4)

GROUP F 3 TEST 4D01 OTH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
302	37	3	0	0	8.9	1	1
304	43	8	0	0	8.7	1	1
306	29	6	0	0	7.1	1	1
308	22	2	0	1	7.5	1	1
MEANS	33	5	0	0	8.0	1	1

(b) (4)

GROUP M 4 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
401	15.4	6.65	48	<2.0	356	12.2	42
403	16.5	6.61	45	<2.0	356	8.0	66
405	15.4	5.94	44	<2.0	261	10.3	62
407	16.5	6.81	47	<2.0	274	10.5	62
409	16.5	7.14	48	<2.0	386	12.4	70
MEANS	16.1	6.63	46.	<2.0	327.	10.7	60.

(b) (4)

GROUP M 4 TEST 4001 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
401	56	2	0	0	7.5	2	2
403	34	0	0	0	8.6	1	1
405	35	3	0	0	7.8	1	2
407	34	3	0	1	7.7	1	2
409	30	0	0	0	7.1	1	1
MEANS	38.	2.	0.	0.	7.7	1.	2.

000670

44.

(b) (4)

GROUP F 4 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
402	15.9	7.18	48	< 2.0	440	18.0	66
404	15.0	6.35	44	< 2.0	320	14.8	43
406	16.1	6.38	45	< 2.0	396	12.4	55
408	16.5	6.26	47	< 2.0	426	9.1	50
410	18.0	7.56	51	< 2.0	343	11.6	73
MEANS	16.5	6.75	47.	< 2.0	385.	13.2	57.

(b) (4)

GROUP F 4 TEST 4D01 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
402	32	2	0	0	7.6	1	2
404	49	9	0	0	8.1	1	1
406	42	3	0	0	8.9	1	1
408	47	1	0	2	8.9	1	1
410	26	1	0	0	7.3	1	1
MEANS	39.	3.	0.	0.	8.2	1.	1.

000671

145.

(b) (4)

GROUP M 1 TEST 4001 5TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
101	15.9	6.15	47	< 2.0	437	20.6	46
103	15.4	5.89	45	< 2.0	423	20.0	77
105	15.0	6.31	45	< 2.0	416	15.7	69
107	15.4	5.88	45	< 2.0	532	8.2	61
109	15.0	5.85	44	< 2.0	317	15.6	72
MEANS	15.5	6.02	45.	< 2.0	425.	16.0	65.

(b) (4)

GROUP M 1 TEST 4001 5TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	C	D	M	PRO TIME	1HP	ESR	2HP
101	46	4	0	1	7.7	1		2
103	23	0	0	0	7.3	2		6
105	30	1	0	0	8.1	1		3
107	26	3	0	0	7.7	1		1
109	24	3	0	1	8.4	2		5
MEANS	32.	2.	0.	0.	7.8	1.		3.

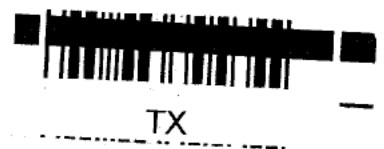
000672

GROUP 5 I TEST 4001 5TH WK COMPOUND DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
102	16.9	6.93	49	<2.0	426	14.5	59
104	17.3	6.84	50	<2.0	383	20.4	69
106	15.4	5.87	45	<2.0	413	21.4	61
108	16.5	7.05	48	<2.0	430	18.3	59
110	16.9	7.10	49	<2.0	393	16.4	55
MEANS	16.6	6.76	48.	<2.0	409.	18.2	61.

GROUP 6 F 1 TEST 4001 5TH WK COMPOUND DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	IHR	ESR	2HR
102	30	2	0	0	7.8	1	1	2
104	27	4	0	0	8.5	1	1	1
106	37	2	0	0	8.6	1	1	2.
108	37	4	0	0	8.4	1	1	1
110	38	6	0	1	7.9	1	1	1
MEANS	36.	4.	0.	0.	8.2	1.	1.	1.



(b) (4)

GROUP	M 2 TEST 4001	5TH 1%K COMPOUND	DOSE 800 PPM	ROUTE DIET	SPECIES DOG		
			(b) (4)				
NO.	HQ	R3C	PCV	RETICS	PL	WBC	N
201	14.1	6.63	47	<2.0	471	16.5	74
202	15.4	6.50	45	<2.0	491	19.0	72
205	14.5	6.89	48	<2.0	423	14.5	57
207	15.2	5.41	43	<2.0	413	17.5	59
MEANS	15.7	6.36	46.	<2.0	450.	16.9	66.

(b) (4)

GROUP	M 2 TEST 4001	5TH 1%K COMPOUND	DOSE 800 PPM	ROUTE DIET	SPECIES DOG			
			(b) (4)					
NO.	L	F	B	M	PRO TIME	1HR	ESR	2HR
201	23	1	0	2	8.8	2	4	4
203	27	1	0	0	8.7	1	5	5
205	38	3	0	2	8.3	1	1	1
207	40	1	0	0	8.1	3	3	3
MEANS	32.	2.	0.	1.	8.5	2.	3.	3.

000674

(b) (4)

GROUP F 2 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	H3	RBC	PCV	RETICS	PL	WBC	N
202	17.9	7.16	48	<2.0	426	17.3	63
204	15.9	6.65	46	<2.0	423	16.1	50
206	17.1	6.80	48	<2.0	304	15.0	68
208	15.9	6.27	46	<2.0	353	16.5	63
MEANS	15.2	6.72	47.	<2.0	377.	16.2	61.

(b) (4)

GROUP F 2 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	F	B	M	PRO TIME	1HR ESR	2HR
202	34	3	0	0	8.4	1	1
204	47	1	0	2	8.4	1	2
206	27	5	0	0	8.9	1	2
208	36	1	0	0	9.0	4	14
MEANS	36.	3.	0.	1.	8.7	2.	5.

000675

(b) (4)

GROUP M 3 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
301	16.1	6.75	47	<2.0	430	25.2	71
303	16.3	5.47	40	<2.0	508	18.7	66
305	15.9	6.31	47	<2.0	491	15.9	64
307	15.9	6.62	46	<2.0	380	11.0	61
MEANS	15.5	6.29	45.	<2.0	452.	17.7	66.

(b) (4)

GROUP M 3 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
301	23	5	0	1	8.4	4	8
303	33	1	0	0	8.3	28	55
305	33	3	0	0	8.0	1	2
307	31	6	0	2	8.7	1	2
MEANS	30.	4.	0.	1.	8.3	9.	17.

000676

50.

(b) (4)

GROUP F 3 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	HR	RBC	PCV	RETICS	PL	WBC	N
302	15.2	6.23	46	<2.0	410	11.9	55
304	15.4	5.60	45	<2.0	484	13.8	67
306	16.5	6.96	49	<2.0	423	12.9	51
308	13.6	5.01	41	<2.0	304	17.2	62
MEANS	15.3	5.95	45.	<2.0	405.	13.9	59.

(b) (4)

GROUP F 3 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
302	42	1	0	2	8.6	1	2
304	32	1	0	0	7.9	1	2
306	46	3	0	0	7.6	1	1
308	34	4	0	0	8.8	4	10
MEANS	39.	2.	0.	1.	8.2	2.	4.

000677

(b) (4)

GROUP M 4 TEST 4DC1 5TH WK COMPOUND DOSE 8000 PPM ROUTE DIET SPECIES DOG

(b) (4)

NO.	HGB	RBC	PCV	RETICS	PL	WBC	N
401	17.3	7.25	49	<2.0	447	13.1	55
403	15.4	5.95	44	<2.0	467	18.9	70
405	14.3	5.42	40	<2.0	393	23.1	68
407	15.0	5.63	43	<2.0	426	13.2	67
409	15.9	6.10	46	<2.0	403	20.2	67
MEANS	15.6	6.07	44.	<2.0	427.	17.7	65.

(b) (4)

GROUP M 4 TEST 4DC1 5TH WK COMPOUND DOSE 8000 PPM ROUTE DIET SPECIES DOG

(b) (4)

NO.	L	F	B	M	PRO TIME	1HR ESR	2HR
401	44	1	0	0	8.9	1	2.
403	27	3	0	0	9.0	5	17
405	27	4	0	1	8.8	18	42
407	32	1	0	0	7.9	2	6
409	30	3	0	0	8.1	5	13
MEANS	32.	2.	0.	0.	8.5	6.	16.

(b) (4)

GROUP F 4 TEST 4001 5TH WK COMPOUND DOSE 8000 PPM ROUTE DIET SPECIES DOG

(b) (4)

NO.	H3	RRC	PCV	RETICS	PL	WBC	N
402	16.1	6.91	48	<2.0	460	12.4	57
404	13.6	5.23	41	<2.0	460	31.2	73
406	14.6	5.36	43	<2.0	340	19.1	61
408	14.6	5.61	43	<2.0	376	12.8	64
410	15.0	5.65	43	<2.0	437	12.6	64
MEANS	14.8	5.85	44.	<2.0	415.	17.6	64.

(b) (4)

GROUP F 4 TEST 4001 5TH WK COMPOUND DOSE 8000 PPM ROUTE DIET SPECIES DOG

(b) (4)

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
402	39	4	0	0	8.3	1	2
404	25	1	0	1	8.6	16	43
406	36	3	0	0	9.0	7	20
408	31	3	0	2	8.8	4	11
410	32	3	0	1	9.0	4	9
MEANS	33.	3.	0.	1.	8.7	.6.	17.

000679

(b) (4)

GROUP M 1 TEST 4001 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
101	15.9	6.28	48	< 2.0	366	13.9	60
103	15.4	5.75	45	< 2.0	413	15.3	57
105	15.4	6.01	45	< 2.0	375	10.4	57
107	15.4	5.84	45	< 2.0	471	10.9	69
109	15.9	6.23	47	< 2.0	350	19.0	57
MEANS	15.6	6.02	46.	< 2.0	395.	13.9	60.

(b) (4)

GROUP M 1 TEST 4001 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
101	38	2	0	0	8.5	1	1
103	33	8	0	2	8.4	1	1
105	42	1	0	0	8.5	1	1
107	28	3	0	0	8.8	1	1
109	40	1	0	2	7.9	2	3
MEANS	36.	3.	0.	1.	8.4	1.	1.

000680

54.

(b) (4)

GROUP F 1 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
102	17.3	6.69	49	< 2.0	343	9.4	59
104	17.3	7.07	50	< 2.0	363	12.9	45
106	15.4	5.01	45	< 2.0	400	13.1	56
108	15.9	6.55	46	< 2.0	396	12.2	49
110	16.5	7.16	48	< 2.0	333	11.1	57
MEANS	16.5	6.72	48.	< 2.0	367.	11.7	53.

(b) (4)

GROUP F 1 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
102	40	1	0	0	8.5	1	2
104	43	10	0	2	8.1	1	1
106	40	5	0	0	9.0	1	2
108	37	13	0	1	8.8	1	3
110	40	2	0	1	8.3	1	1
MEANS	40.	6.	0.	1.	8.5	1.	2.

000681

(b) (4)

GROUP M 2 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
201	15.9	6.19	46	<2.0	491	13.3	59
203	15.9	6.28	46	<2.0	366	11.7	51
205	16.1	6.51	48	<2.0	383	11.9	53
207	15.4	6.11	45	<2.0	370	12.8	56
MEANS	15.8	6.27	46.	<2.0	403.	12.4	55.

(b) (4)

GROUP M 2 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
201	36	3	0	2	8.3	2	3
203	46	3	0	0	8.6	1	1
205	38	8	0	1	8.6	1	2
207	38	4	0	2	8.1	1	2
MEANS	40.	5.	0.	1.	8.4	1.	2.

000682

(b) (4)

GROUP F 2 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
202	16.9	7.21	48	< 2.0	430	12.9	60
204	16.5	7.03	47	< 2.0	433	12.4	67
206	16.5	6.73	48	< 2.0	390	11.9	57
208	16.1	6.71	47	< 2.0	443	11.7	62
MEANS	16.5	6.92	48.	< 2.0	424.	12.2	62.

(b) (4)

GROUP F 2 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
202	40	0	0	0	8.7	1	1
204	30	1	0	2	8.5	1	1
206	41	1	0	1	8.0	1	1
208	34	3	0	1	8.7	1	2
MEANS	36.	1.	0.	1.	8.5	1.	1.

000683

(b) (4)

GROUP M 3 TEST 4D01 9TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
301	15.4	6.33	45	<2.0	346	19.1	62
303	15.0	6.21	43	<2.0	413	12.9	59
305	16.5	6.80	48	<2.0	383	12.3	57
307	15.9	6.71	47	<2.0	313	13.4	66
MEANS	15.7	6.51	46.	<2.0	364.	14.4	61.

(b) (4)

GROUP M 3 TEST 4D01 9TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
301	35	2	0	1	8.3	1	2
303	30	3	0	0	8.8	3	8
305	39	3	0	1	8.7	1	1
307	32	0	0	2	8.7	1	1
MEANS	36.	2.	0.	1.	8.6	2.	3.

GROUP F 3 TEST 4D01 9TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG
 (b) (4)

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
302	16.5	7.03	48	< 2.0	346	12.3	72
304	16.5	7.10	48	< 2.0	370	14.0	47
306	17.3	7.30	50	< 2.0	457	11.3	66
308	15.9	6.78	46	< 2.0	433	13.9	55
MEANS	16.5	7.05	48.	< 2.0	402.	12.9	60.

GROUP F 3 TEST 4D01 9TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG
 (b) (4)

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
302	26	2	0	0	8.7	1	1
304	43	10	0	0	8.1	1	2
306	31	3	0	0	8.2	1	1
308	44	1	0	0	8.1	1	3
MEANS	36.	4.	0.	0.	8.3	1.	2.

(b) (4)

GROUP M 4 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HGB	RBC	PCV	RETICS	PL	WBC	N
401	16.1	6.60	48	<2.0	317	11.6	57
403	15.4	6.43	45	<2.0	447	8.8	70
405	15.4	6.49	45	<2.0	403	12.8	57
407	14.6	5.61	42	<2.0	330	19.7	73
409	15.4	6.21	45	<2.0	281	11.4	66
MEANS	15.4	6.27	45.	<2.0	356.	12.9	65.

(b) (4)

GROUP M 4 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
401	39	4	0	0	7.9	1	2
403	27	3	0	0	8.3	1	1
405	39	3	0	1	8.1	2	7
407	24	1	0	2	8.0	2	6
409	24	7	0	3	8.8	1	3
MEANS	31.	4.	0.	1.	8.2	1.	4.

989000

60.

(b) (4)

GROUP F 4 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
402	15.4	5.64	45	<2.0	460	13.1	67
404	14.3	5.47	41	<2.0	383	13.5	51
406	14.6	5.64	42	<2.0	464	15.6	54
408	15.4	6.18	44	<2.0	346	10.7	52
410	14.6	5.71	42	<2.0	423	12.1	63
MEANS	14.9	5.73	43.	<2.0	415.	13.0	57.

(b) (4)

GROUP F 4 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
402	29	4	0	0	7.9	4	8
404	43	5	0	1	8.1	7	10
406	43	1	0	2	8.2	8	21
408	44	3	0	1	7.8	1	3
410	37	0	0	0	8.1	4	10
MEANS	39.	3.	0.	1.	8.0	5.	10.

000687

(b) (4)

GROUP M 1 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HR	RBC	PCV	RETICS	PL	WBC	N
101	15.1	6.31	48.	<2.0	330	17.5	56
103	15.9	6.03	46	<2.0	443	16.4	57
105	16.1	6.38	47	<2.0	304	13.8	66
107	15.0	6.00	43	<2.0	505	14.3	58
109	15.4	6.07	44	<2.0	423	17.9	51
MEANS	15.7	6.16	46.	<2.0	401.	16.0	58.

(b) (4)

GROUP M 1 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	F	B	M	PRO TIME	1HR ESR	2HR
101	42	2	0	0	8.3	1	1
103	40	2	0	1	8.4	1	2
105	31	2	0	1	8.4	1	1
107	40	2	0	0	8.1	1	2
109	44	4	0	1	8.6	2	5
MEANS	39.	2.	0.	1.	8.4	1.	2.

889000

(b) (4)

GROUP F I TEST 4001 13TH WK COMPOUND DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
102	17.6	7.03	49	<2.0	370	18.1	66
104	17.6	7.23	51	<2.0	373	14.7	53
106	15.9	6.13	45	<2.0	333	14.4	54
108	14.3	5.65	42	<2.0	474	10.6	65
110	17.6	7.30	50	<2.0	430	17.2	61
MEANS	16.6	6.67	47.	<2.0	396.	15.0	60.

(b) (4)

GROUP F I TEST 4001 13TH WK COMPOUND DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	IHR	ESR	ZHR
102	33	1	C	1	8.0	1	1	1
104	44	3	0	0	8.1	1	2	2
106	42	4	C	0	8.7	1	1	1
108	28	7	0	0	8.6	5	13	13
110	31	8	0	0	8.5	1	2	2
MEANS	36.	5.	0.	0.	8.4	2.	4.	4.

(b) (4)

GROUP M 2 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
201	15.4	5.93	45	<2.0	336	16.8	54
203	15.9	6.35	45	<2.0	327	13.1	53
205	16.5	6.78	49	<2.0	363	14.2	65
207	15.0	5.89	43	<2.0	346	15.1	58
MEANS	15.7	6.24	46.	<2.0	343.	14.8	58.

(b) (4)

GROUP M 2 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
201	42	3	0	1	8.2	2	5
203	47	0	0	0	8.5	1	2
205	31	2	0	2	8.5	1	1
207	40	2	0	0	8.4	1	1
MEANS	40.	2.	0.	1.	8.4	1.	2.

000690

(b) (4)

GROUP F 2 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
202	17.3	7.13	49	<2.0	484	13.8	59
204	17.3	7.26	49	<2.0	346	15.3	63
206	16.5	6.71	47	<2.0	413	16.1	63
208	16.5	6.92	48	<2.0	454	13.3	63
MEANS	16.9	7.00	48.	<2.0	424.	14.6	62.

(b) (4)

GROUP F 2 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
202	38	3	0	0	8.4	1	1
204	34	1	0	2	8.1	1	2
206	34	3	0	0	7.9	1	2
208	30	6	0	1	8.7	1	1
MEANS	34.	3.	0.	1.	8.3	1.	2.

000691

(b) (4)

GROUP M 3 TEST 4D01 13TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	HR	RBC	PCV	RETICS	PL	WBC	N
301	16.1	6.35	47	<2.0	373	17.0	58
303	15.0	5.82	43	<2.0	356	11.7	54
305	15.4	5.95	45	<2.0	390	16.3	63
307	15.9	6.26	45	<2.0	330	13.6	61
MEANS	15.6	6.09	45.	<2.0	362.	14.6	59.

(b) (4)

(b) (4)

GROUP M 3 TEST 4D01 13TH WK COMPOUND DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
301	38	3	0	1	8.3	1	1
303	45	1	0	0	8.2	5	13
305	36	1	0	0	7.9	1	1
307	34	4	0	1	8.5	1	2
MEANS	38.	2.	0.	1.	8.2	2.	4.

(b) (4)

GROUP F 3 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
302	17.3	7.23	50.	<2.0	360	10.8	55
304	16.5	6.93	49	<2.0	278	13.7	57
306	17.3	7.28	51	<2.0	330	17.1	54
308	16.5	6.83	47	<2.0	423	15.5	65
MEANS	16.9	7.07	49.	<2.0	348.	14.3	58.

(b) (4)

GROUP F 3 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
302	40	5	0	0	8.5	1	1
304	41	2	0	0	8.1	1	1
306	45	0	0	1	8.2	1	2.
308	30	5	0	0	8.1	1	1
MEANS	39.	3.	0.	0.	8.2	1.	1.

000693

(b) (4)

GROUP M 4 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
401	15.9	6.53	45	<2.0	386	11.0	59
403	16.5	6.87	48	<2.0	383	14.8	61
405	14.6	5.93	42	<2.0	376	15.5	60
407	15.0	6.13	43	<2.0	327	11.9	63
409	15.9	6.42	45	<2.0	333	24.5	63
MEANS	15.6	6.38	45.	<2.0	361.	15.5	61.

(b) (4)

GROUP M 4 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	2HR
401	37	2	0	2	8.0	1	2
403	38	1	0	0	8.6	1	1
405	37	2	0	1	8.2	2	5
407	32	5	0	0	8.3	1	2
409	37	0	0	0	8.1	9	25
MEANS	36.	2.	0.	1.	8.2	3.	7.

000694

(b) (4)

GROUP F 4 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	HB	RBC	PCV	RETICS	PL	WBC	N
402	15.9	6.24	45	<2.0	437	17.8	58
404	15.0	5.49	42	<2.0	430	13.4	59
406	14.3	5.37	41	<2.0	416	17.1	65
408	15.4	6.46	45	<2.0	423	16.3	56
410	15.4	6.51	44	<2.0	380	19.9	63
MEANS	15.2	6.01	43.	<2.0	417.	16.9	60.

(b) (4)

GROUP F 4 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	L	E	B	M	PRO TIME	1HR ESR	ZHR
402	40	2	0	0	8.8	4	8
404	37	3	0	1	8.2	1	1.
406	35	0	0	0	8.4	1	2
408	42	1	0	1	8.7	1	2
410	35	2	0	0	8.0	2	5
MEANS	38.	2.	0.	0.	8.4	2.	4.

000695

CLINICAL CHEMISTRY

Code:-

PROTEIN	=	Total serum protein
ALB	=	% Serum albumin
A1	=	% α_1 Serum protein
A2	=	% α_2 " "
B	=	% β " "
G	=	% Serum γ globulin
AG RATIO	=	Albumin/globulin ratio
NA	=	Serum sodium
K	=	Serum potassium
SUGAR	=	Blood sugar
UREA	=	Serum urea
SGOT	=	Serum glutamic oxaloacetic transaminase
SGPT	=	Serum glutamic pyruvic transaminase
SAP	=	Serum alkaline phosphatase
CHOL	=	Serum cholesterol

TEST No. 4D1		0 TH WEEK							COMPOUND (b) (4)	Route	Diet	SPECIES					Dog
Dose Group	No. Sex	Na	K	Sugar	Urea	SGOT	SGPT	SAP	Protein	Serum Proteins %					A:G Ratio	CHOL.	
										Alb.	α_1	α_2	β	γ			
1	♂	154	4.4	111	39	30	25	25.6	5.96	51.1	9.3	9.4	20.9	9.4	1.05	178	
2		157	4.6	104	42	30	24	23.0	6.17	48.1	10.1	10.0	21.7	10.0	0.92	149	
3		156	4.5	106	38	32	26	22.5	6.33	50.8	7.5	10.8	20.7	10.1	1.03	171	
4		154	4.5	109	35	27	26	31.2	5.65	51.7	10.3	9.1	21.0	7.9	1.09	195	
1	♀	155	4.5	101	41	28	25	28.6	5.70	50.5	10.3	9.0	20.0	10.2	1.02	172	
2		153	4.3	98	42	28	22	30.0	5.32	46.3	12.0	11.4	21.8	8.5	0.89	196	
3		155	4.5	100	39	24	26	26.3	5.63	51.2	9.1	9.2	21.5	8.9	1.05	176	
4		158	4.3	96	41	27	22	23.8	5.33	51.4	10.3	9.3	19.9	9.0	1.06	167	
1	♂ + ♀	155	4.4	106	40	29	25	27.1	5.83	50.8	9.8	9.2	20.4	9.8	1.04	175	
2		155	4.4	101	42	29	23	26.5	5.75	47.2	11.1	10.7	21.8	9.2	0.91	173	
3		155	4.5	103	39	28	26	24.4	5.98	51.0	8.3	10.0	21.1	9.5	1.04	173	
4		156	4.4	103	38	27	24	27.5	5.49	51.5	10.3	9.2	20.5	8.4	1.07	181	

GROUP MEANS
BIOCHEMISTRY

000697

TEST No. 4001		5 TH WEEK				COMPOUND (b) (4)				Route Diet	SPECIES Dog							
Dose Group	No. Sex	Na	K	Sugar	Urea	SGOT	SGPT	SAP	Protein	Serum Proteins %					A:G Ratio 1:-	CHOL.		
										Alb.	α_1	α_2	β	γ				
1	♂	148	4.3	90	35	23	23	24.2	5.34	50.0	3.7	6.6	28.6	11.2	1.00	148		
2		147	4.6	98	43	24	21	30.0	5.54	48.5	5.5	9.1	26.1	10.6	0.94	159		
3		150	4.7	96	41	19	21	23.8	5.64	43.7	8.0	15.6	22.8	9.9	0.78	169		
4		151	4.4	91	43	29	28	26.6	5.10	45.8	5.3	14.9	24.6	9.5	0.84	156		
1	♀	146	4.5	84	41	22	22	24.0	5.81	51.0	9.6	9.4	21.5	8.5	1.05	168		
2		149	4.6	83	46	21	22	27.5	5.69	51.5	7.8	8.1	22.8	9.7	1.07	181		
3		149	4.8	84	45	20	21	22.5	5.33	51.4	4.5	7.9	26.4	9.7	1.06	164		
4		149	4.7	88	40	26	24	23.4	4.99**	47.1	6.1	11.9	24.0	10.9	0.89	132		
1	♂ + ♀	147	4.4	87	38	23	23	24.1	5.57	50.5	6.6	8.0	25.0	9.8	1.02	158		
2		148	4.6	90	44	23	21	28.8	5.62	50.0	6.7	8.6	24.5	10.2	1.01	170		
3		149	4.7	90	43	19	21	23.1	5.49	47.6	6.2	11.8	24.6	9.8	0.92	167		
4		150	4.5	89	41	28	26	25.0	5.04*	46.4	5.7	13.4	24.3	10.2	0.87	144		

GROUP MEANS
BIOCHEMISTRY

000698

*p < 0.05

**p < 0.01

TEST No. 4D01		9 TH WEEK				COMPOUND (b) (4)				Route	Diet	SPECIES		Dog		
Dose Group	No. Sex	Na	K	Sugar	Urca	SGOT	SGPT	SAP	Protein	Serum Proteins %					A:G Ratio 1:-	CHOL.
										Alb.	α_1	α_2	β	γ		
1	♂	145	4.5	103	47	23	24	19.2	5.77	52.0	6.1	6.4	26.9	8.7	1.25	169
2		147	4.6	103	47	24	21	25.8	5.92	51.1	4.5	6.6	28.3	9.4	1.05	153
3		150	4.5	98	48	21	26	24.8	5.78	48.1	4.3	7.2	28.5	11.8	0.93	154
4		154*	4.7	87*	41	26	37	28.6	5.71	48.4	4.4	7.9	27.7	11.7.	0.94	179
1	♀	156	4.6	94	47	23	26	23.8	6.19	51.1	5.5	7.0	24.6	11.8	1.04	185
2		155	4.6	90	47	20	22	22.5	5.99	52.2	4.9	7.2	23.6	12.0	1.09	195
3		152	4.8	98	39	22	22	20.0	5.75*	56.1	4.5	5.2	22.5	11.7	1.29	168
4		154	4.8	96	51	29*	43	17.2	5.40*	49.4	3.8	7.8	26.6	12.4	0.98	155
1	♂ + ♀	150	4.5	98	47	23	25	21.5	5.98	51.5	5.8	6.7	25.7	10.2	1.15	177
2		151	4.6	96	47	22	21	24.1	5.96	51.6	4.7	6.9	26.0	10.7	1.07	174
3		151	4.6	98	43	21	24	22.4	5.76	52.1	4.4	6.2	25.5	11.8	1.11	161
4		154	4.8	91	46	28*	40*	22.9	5.55*	48.9	4.1	7.8	27.1	12.0	0.96	167

GROUP MEANS
BIOCHEMISTRY

*p < 0.05

**p < 0.01

000699

(b) (4)

TEST 4001 13TH WK COMPOUND (b) (4) ROUTE DIET SPECIES DOG

GROUP MEANS

GROUP	NA	K	SUGAR	UR.FA:	SGOT	SGPT	SAP	PROTEIN	ALB
M 1	140	4.5	104	46	25	27	21.0	5.76	52.2
M 2	151	4.5	103	41	27	24	24.5	5.65	55.1
M 3	150	4.8	105	48	23	26	17.7	5.85	52.1
M 4	151	4.7	99	48	29	32	27.2	5.49	51.5
F 1	150	4.5	101	49	25	27	30.2	6.44	52.9
F 2	151	4.6	99	52	21	25	23.5	6.15	55.3
F 3	152	4.7	97	40	24	27	16.2*	5.87*	59.4
F 4	151	5.1**	94	56	25	56	19.6	5.17**	55.3
M+F 1	149	4.5	103	48	25	27	25.6	6.10	52.5
M+F 2	151	4.6	101	47	24	24	24.0	5.95	55.2
M+F 3	151	4.8*	101	44	23	27	17.0*	5.86	55.8
M+F 4	151	4.9*	97*	52	27	44	23.4	5.33**	53.4

GROUP	A1	A2	B	G	AG RATIO	CHOL.
M 1	1.9	5.6	25.7	14.6	1.09	167
M 2	2.0	5.0	24.7	13.2	1.25	152
M 3	2.9	4.3	25.6	15.0	1.09	161
M 4	3.1	5.9	26.1	13.4	1.06	164
F 1	3.1	5.9	26.1	12.1	1.13	190
F 2	3.1	5.5	24.3	11.7	1.25	182
F 3	2.2	2.8	25.3	10.2	1.48	152
F 4	2.4	5.1	25.3	11.9	1.25	140
M+F 1	2.5	5.7	25.9	13.3	1.11	179
M+F 2	2.6	5.3	24.5	12.4	1.25	167
M+F 3	2.6	3.5	25.5	12.6	1.29	156
M+F 4	2.7	5.5	25.7	12.6	1.15	152

*P < 0.05

** < 0.01

000700

71

(b) (4)

GROUP M I TEST 4D1 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
101	157	3.9	109	38	29	30	35.0
103	161	4.4	115	46	22	16	32.0
105	155	4.2	121	38	28	24	23.0
107	149	4.4	97	44	35	32	14.0
109	148	5.1	113	30	36	23	24.0
MEANS	154.	4.4	111.	39.	30.	25.	25.6

NO.	PROTEIN	ALB.	A1	A2	B	G	AG RATIO	CHOL.
101	5.06	55.7	8.6	9.0	19.4	7.3	1.25	163
103	6.55	49.5	11.0	9.9	21.5	8.1	0.98	220
105	5.85	51.9	9.5	7.6	21.5	9.5	1.08	151
107	5.92	52.2	8.6	9.8	19.6	9.8	1.09	174
109	6.40	46.1	8.6	10.8	22.3	12.2	0.85	184
MEANS	5.96	51.1	9.3	9.4	20.9	9.4	1.05	178.

000701

SL

(b) (4)

GROUP F 1 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
102	150	4.4	104	40	31	21	18.0
104	159	4.6	101	49	28	26	26.0
106	149	4.4	109	37	20	26	23.0
108	159	4.4	80	39	32	28	33.0
110	160	4.7	109	38	28	26	43.0
MEANS	155.	4.5	101.	41.	28.	25.	28.6

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
102	5.75	50.0	9.3	9.3	20.3	11.1	1.00	187
104	5.56	50.7	11.3	8.9	20.2	8.9	1.03	150
106	5.75	51.5	8.0	9.3	20.6	10.6	1.06	155
108	6.04	52.8	9.0	9.7	18.1	10.4	1.12	190
110	5.41	47.7	13.7	7.9	20.9	9.8	0.90	179
MEANS	5.70	50.5	10.3	9.0	20.0	10.2	1.02	172.

000702

(b) (4)

GROUP H 2 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
201	157	4.8	90	39	31	34	27.0
203	153	4.3	104	38	32	17	36.0
205	161	4.3	115	40	27	25	12.0
207	158	4.9	105	49	30	21	17.0
MEANS	157.	4.6	104.	42.	30.	24.	23.0

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
201	5.92	51.6	9.2	9.8	19.6	9.8	1.06	140
203	6.69	47.9	9.9	8.7	23.6	9.9	0.91	151
205	6.24	45.4	10.1	10.6	23.3	10.6	0.83	155
207	5.85	47.6	11.4	10.8	20.5	9.7	0.90	150
MEANS	6.17	48.1	10.1	10.0	21.7	10.0	0.92	149.

000703

44

(b) (4)

GROUP F 2 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR.	UREA	SGOT	SGPT	SAP
202	148	4.1	94	42	35	22	15.0
204	149	4.3	112	41	25	23	39.0
206	157	4.6	98	43	27	21	32.0
208	159	4.3	88	42	23	21	34.0
MEANS	153.	4.3	98.	42.	28.	22.	30.0

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
202	5.85	43.0	13.5	13.5	21.8	8.2	0.75	232
204	5.04	57.0	7.9	7.9	20.2	7.0	1.33	144
206	5.30	40.1	14.3	10.2	25.2	10.2	0.67	188
208	5.09	45.0	12.2	14.0	20.2	8.6	0.81	221
MEANS	5.32	46.3	12.0	11.4	21.8	8.5	0.89	196.

000704

(b) (4)

GROUP M 3 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
301	159	3.9	106	37	35	24	23.0
303	149	4.7	95	37	36	25	37.0
305	156	4.9	106	38	27	23	13.0
307	158	4.4	115	41	30	33	17.0
MEANS	156.	4.5	106.	38.	32.	26.	22.5

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
301	5.60	51.5	8.7	11.2	20.4	8.2	1.06	165
303	6.40	51.9	7.9	8.7	19.7	11.8	1.08	188
305	6.69	49.0	6.0	13.5	21.5	10.0	0.96	151
307	6.64	51.0	7.4	9.9	21.3	10.4	1.04	178
MEANS	6.33	50.8	7.5	10.8	20.7	10.1	1.03	171.

000705

bx

(b) (4)

GROUP F 3 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
302	150	4.6	107	44	23	26	21.0
304	150	4.5	107	46	22	32	29.0
306	162	4.4	98	29	24	17	25.0
308	159	4.4	88	38	28	28	30.0
MEANS	155.	4.5	100.	39.	24.	26.	26.3

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
302	5.32	51.0	9.9	8.0	21.2	9.9	1.04	184
304	5.75	54.5	6.4	8.2	21.8	9.1	1.19	148
306	5.60	50.3	9.4	9.9	23.4	7.0	1.01	183
308	5.85	48.9	10.9	10.9	19.8	9.5	0.96	188
MEANS	5.63	51.2	9.1	9.2	21.5	8.9	1.05	176.

000706

(b) (4)

GROUP M 4 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
401	156	4.1	114	38	28	24	30.0
403	150	4.6	114	29	27	33	25.0
405	157	5.1	89	39	34	19	38.0
407	149	4.4	110	34	23	22	25.0
409	158	4.2	117	37	25	31	38.0
MEANS	154.	4.5	109.	35.	27.	26.	31.2

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
401	5.92	54.5	9.3	8.8	21.2	6.2	1.19	148
403	5.52	55.2	9.4	7.1	20.4	7.9	1.23	194
405	5.89	42.6	15.2	10.0	24.0	8.2	0.74	211
407	5.32	49.6	8.3	10.5	22.6	9.0	0.98	227
409	5.60	56.4	9.5	8.9	17.0	8.2	1.29	194
MEANS	5.65	51.7	10.3	9.1	21.0	7.9	1.09	195.

000707

(b) (4)

GROUP F 4 TEST 4D1 OTH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
402	159	4.8	92	49	32	22	17.0
404	159	4.2	98	35	27	21	41.0
406	162	4.4	96	38	29	20	32.0
408	152	4.0	106	46	20	22	13.0
410	150	4.1	89	35	26	24	16.0
MEANS	158.	4.3	96.	41.	27.	22.	23.8

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL.
402	5.82	49.0	13.8	10.3	18.6	8.3	0.96	196
404	5.15	54.2	8.3	9.2	20.0	8.3	1.18	127
406	5.12	47.5	13.3	10.1	19.0	10.1	0.90	139
408	4.80	52.5	7.5	8.3	20.9	10.8	1.10	208
410	5.78	54.0	8.8	8.8	21.0	7.4	1.17	164
MEANS	5.33	51.4	10.3	9.3	19.9	9.0	1.06	167.

000708

(b) (4)

GROUP M 1 TEST 4001 5TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
101	146	3.9	89	26	27	24	27.0
103	147	4.3	83	33	15	20	19.0
105	149	4.4	96	38	27	24	31.0
107	150	4.3	93	45	21	27	18.0
109	148	4.4	91	33	27	21	26.0
MEANS	148.	4.3	90.	35.	23.	23.	24.2

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
101	5.05	48.2	3.6	6.0	28.9	13.3	0.92	129
103	5.61	48.0	3.1	8.7	30.9	9.3	0.92	183
105	5.76	48.6	4.3	5.1	29.7	12.3	0.94	137
107	4.58	54.3	4.4	6.5	25.4	9.4	1.19	150
109	5.68	50.7	2.9	6.6	28.0	11.8	1.03	143
MEANS	5.34	50.0	3.7	6.6	28.6	11.2	1.00	148.

602000

(b) (4)

GROUP F I TEST 4D01 5TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
102	145	4.7	85	39	24	17	26.0
104	147	4.5	87	41	23	21	15.0
106	146	4.5	88	55	18	21	24.0
108	146	4.2	81	31	27	23	24.0
110	147	4.7	77	37	18	28	31.0
MEANS	146.	4.5	84.	41.	22.	22.	24.0

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
102	5.94	57.7	6.4	9.0	20.5	6.4	1.36	195
104	5.94	47.5	11.8	8.8	23.1	8.8	0.90	143
106	6.16	48.5	11.0	10.4	22.1	8.0	0.94	153
108	5.40	51.9	7.9	8.6	20.4	11.2	1.08	165
110	5.60	49.2	11.0	10.4	21.4	8.0	0.97	182
MEANS	5.81	51.0	9.6	9.4	21.5	8.5	1.05	168.

000710

(b) (4)

GROUP M 2 TEST 4D01 5TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
201	145	4.6	99	43	27	30	37.0
203	147	4.5	96	39	24	11	33.0
205	145	4.2	96	43	27	22	23.0
207	150	5.3	99	47	18	19	27.0
MEANS	147.	4.6	98.	43.	24.	21.	30.0

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
201	5.52	51.0	3.8	8.9	26.7	9.6	1.04	163
203	5.61	47.8	4.4	8.1	29.4	10.3	0.91	174
205	5.76	46.3	5.2	6.0	26.1	16.4	0.86	166
207	5.29	49.1	8.7	13.6	22.3	6.3	0.97	134
MEANS	5.54	48.5	5.5	9.1	26.1	10.6	0.94	159.

000711

(b) (4)

GROUP F 2 TEST 4001 5TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
202	147	4.5	84	45	21	22	18.0
204	149	4.7	87	47	22	23	27.0
206	149	4.5	79	45	26	25	25.0
208	150	4.9	81	45	15	18	40.0
MEANS	149.	4.6	83.	46.	21.	22.	27.5

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
202	6.13	52.0	10.0	8.7	20.0	9.3	1.09	177
204	5.28	56.5	8.3	6.9	19.3	9.0	1.30	141
206	5.40	49.7	8.8	8.8	20.1	12.6	0.99	171
208	5.94	47.9	4.3	8.0	31.8	8.0	0.91	234
MEANS	5.69	51.5	7.8	8.1	22.8	9.7	1.07	181.

000712

(b) (4)

GROUP M 3 TEST 4DG1 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
301	148	4.8	96	43	19	20	27.0
303	152	4.8	101	45	16	13	33.0
305	150	4.6	92	32	21	22	16.0
307	151	4.5	96	43	18	29	19.0
MEANS	150.	4.7	96.	41.	19.	21.	23.8

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
301	5.76	42.7	7.8	15.6	24.5	9.4	0.74	156
303	6.20	39.6	8.1	16.7	22.5	13.1	0.65	189
305	5.09	45.7	5.5	16.1	25.6	7.1	0.84	145
307	5.52	46.9	10.5	14.2	18.5	9.9	0.88	186
MEANS	5.54	43.7	8.0	15.6	22.8	9.9	0.78	169.

000713

(b) (4)

GROUP F 3 TEST 4D01 5TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
302	148	5.1	79	46	25	23	19.0
304	147	4.6	87	45	19	24	28.0
306	151	4.8	83	35	18	14	23.0
308	148	4.6	87	54	17	21	20.0
MEANS	149.	4.8	84.	45.	20.	21.	22.5

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
302	5.28	54.2	4.2	5.8	27.5	8.3	1.18	177
304	5.23	51.5	5.2	9.0	24.6	9.7	1.06	141
306	5.54	50.4	4.0	9.4	26.8	9.4	1.02	182
308	5.28	49.6	4.6	7.6	26.7	11.5	0.98	157
MEANS	5.33	51.4	4.5	7.9	26.4	9.7	1.06	164.

000714

(b) (4)

GROUP M 4 TEST 4D01 5TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
401	149	4.3	79	38	30	22	19.0
403	151	4.9	95	38	44	43	23.0
405	151	4.6	100	43	24	15	34.0
407	151	4.3	84	43	22	28	18.0
409	155	3.9	95	52	24	30	39.0
MEANS	151.	4.4	91.	43.	29.	28.	26.6

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
401	5.28	47.3	4.8	15.0	23.9	9.0	0.90	158
403	4.74	45.5	5.8	14.7	25.0	9.0	0.83	129
405	5.28	41.2	6.6	17.4	26.8	8.0	0.69	158
407	5.05	47.3	4.2	15.2	23.0	10.3	0.90	141
409	5.14	47.5	4.9	12.2	24.4	11.0	0.90	192
MEANS	5.10	45.8	5.3	14.9	24.6	9.5	0.84	156.

000715

(b) (4)

GROUP F 4 TEST 4D01 5TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
402	148	4.8	86	37	23	17	17.0
404	147	4.7	95	42	32	14	31.0
406	152	4.6	88	39	31	19	34.0
408	150	4.6	92	46	22	26	20.0
410	149	4.6	79	35	23	43	15.0
MEANS	149.	4.7	88.	40.	26.	24.	23.4

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
402	5.45	48.5	5.0	10.0	27.2	9.3	0.94	172
404	4.85	41.7	5.5	11.8	29.9	11.1	0.71	123
406	5.00	48.1	7.0	10.7	22.2	12.0	0.92	102
408	5.08	46.5	7.0	15.5	18.6	12.4	0.86	134
410	4.56	50.6	6.1	11.4	22.0	9.9	1.02	129
MEANS	4.99	47.1	6.1	11.9	24.0	10.9	0.89	132.

000716

(b) (4)

GROUP M 1 TEST 4DC1 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
101	145	4.1	96	29	24	31	20.0
103	144	4.8	102	56	16	20	17.0
105	144	4.4	105	43	25	24	17.0
107	144	4.3	100	64	22	27	31.0
109	146	4.9	112	43	29	20	11.0
MEANS	145.	4.5	103.	47.	23.	24.	19.2

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
101	5.48	56.1	4.2	6.4	24.1	9.2	1.28	179
103	6.00	51.9	7.4	7.4	25.9	7.4	1.88	161
105	5.76	50.4	7.5	6.3	28.3	7.5	1.02	212
107	5.18	52.5	6.9	6.9	25.6	8.1	1.10	150
109	6.45	48.9	4.4	5.0	30.6	11.1	0.96	144
MEANS	5.77	52.0	6.1	6.4	26.9	8.7	1.25	169.

000717

(b) (4)

GROUP F-1 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
102	152	4.3	91	45	25	18	31.0
104	157	4.6	94	50	22	25	21.0
106	158	4.5	94	42	22	23	23.0
108	157	4.8	88	51	20	20	14.0
110	155	4.7	101	45	24	46	30.0
MEANS	156.	4.6	94.	47.	23.	26.	23.8

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
102	6.15	52.7	4.5	7.1	22.3	13.4	1.11	216
104	6.15	53.2	4.3	7.0	25.0	10.5	1.12	135
106	6.15	52.9	4.7	6.6	24.5	11.3	1.12	165
108	6.52	46.4	7.2	7.2	24.8	14.4	0.86	210
110	5.97	50.3	6.6	7.3	26.3	9.5	1.01	197
MEANS	6.19	51.1	5.5	7.0	24.6	11.8	1.04	185.

000718

(b) (4)

GROUP M 2 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
201	150	4.7	101	47	32	29	16.0
203	145	5.0	110	46	20	14	37.0
205	144	4.1	98	37	28	22	34.0
207	148	4.8	101	59	17	19	16.0
MEANS	147.	4.6	103.	47.	24.	21.	25.8

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
201	6.00	48.0	5.0	5.0	33.7	8.3	0.92	148
203	6.00	51.3	6.0	8.7	24.0	10.0	1.05	152
205	6.19	48.7	3.7	6.9	28.0	12.7	0.95	176
207	5.48	56.4	3.4	6.0	27.4	6.8	1.29	135
MEANS	5.92	51.1	4.5	6.6	28.3	9.4	1.05	153.

000719

(b) (4)

GROUP F 2 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
202	155	4.3	85	39	24	23	17.0
204	155	4.7	90	50	22	20	25.0
206	155	4.8	100	54	18	23	20.0
208	155	4.7	85	46	14	21	28.0
MEANS	155.	4.6	90.	47.	20.	22.	22.5

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
202	6.07	51.5	4.6	7.9	24.2	11.8	1.06	203
204	5.77	53.6	4.9	7.3	23.6	10.6	1.15	156
206	6.07	51.6	5.1	8.5	22.9	11.9	1.06	193
208	6.07	52.1	5.1	5.1	23.9	13.8	1.09	229
MEANS	5.99	52.2	4.9	7.2	23.6	12.0	1.09	195.

000720

(b) (4)

GROUP M 3 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
301	151	4.6	101	47	20	22	21.0
303	147	4.4	118	59	18	19	26.0
305	148	4.8	100	39	25	25	34.0
307	155	4.4	71	45	20	36	18.0
MEANS	150.	4.5	98.	48.	21.	26.	24.8

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
301	5.76	49.7	4.6	6.1	29.4	10.2	0.99	147
303	6.26	46.0	3.6	7.9	31.8	10.7	0.85	165
305	5.34	50.7	3.8	5.8	26.8	12.9	1.03	128
307	5.77	46.1	5.2	9.1	26.0	13.6	0.85	177
MEANS	5.78	48.1	4.3	7.2	28.5	11.8	0.93	154.

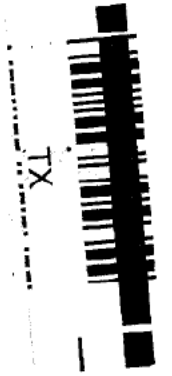
000721

(b) (4)

GROUP F 3 TEST 4001 9TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGDT	SGPT	SAP
302	150	4.8	88	38	29	28	16.0
304	152	4.9	105	36	17	22	25.0
306	152	4.8	99	36	20	16	21.0
308	153	4.8	99	45	20	21	18.0
MEANS	152.	4.8	98.	39.	22.	22.	20.0

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
302	5.44	59.8	4.3	5.0	23.0	7.9	1.49	174
304	5.85	59.6	3.7	5.5	19.3	11.9	1.48	137
306	5.85	54.1	3.7	3.7	24.4	14.1	1.17	190
308	5.85	50.8	6.5	6.5	23.2	13.0	1.03	169
MEANS	5.75	56.1	4.5	5.2	22.5	11.7	1.29	168.



000722

(b) (4)

GROUP M 4 TEST 4DC1 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
401	154	4.9	86	41	24	31	27.0
403	153	4.9	82	50	32	47	20.0
405	152	4.8	82	30	28	39	35.0
407	155	4.4	98	36	21	34	21.0
409	155	4.5	85	46	26	33	40.0
MEANS	154.	4.7	87.	41.	26.	37.	28.6

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
401	6.00	47.9	5.0	7.6	25.2	14.3	0.91	182
403	5.77	50.8	4.0	7.1	27.0	11.1	1.03	161
405	5.77	45.0	4.7	9.5	30.6	10.2	0.81	179
407	5.37	49.2	3.7	8.1	28.0	11.0	0.97	149
409	5.63	48.9	4.7	7.1	27.5	11.8	0.96	226
MEANS	5.71	48.4	4.4	7.9	27.7	11.7	0.94	179.

000723

(b) (4)

GROUP F 4 TEST 4D01 9TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP
402	153	4.8	102	57	31	28	14.0
404	153	5.0	91	50	24	28	19.0
406	157	4.8	87	47	25	31	19.0
408	152	4.6	105	55	30	50	16.0
410	156	4.9	93	45	34	78	18.0
MEANS	154.	4.8	96.	51.	29.	43.	17.2

NO.	PROTEIN	ALB	A1	A2	B	G	AG RATIO	CHOL
402	5.25	54.1	3.5	6.6	26.3	9.5	1.17	198
404	5.04	50.8	3.1	6.9	24.6	14.6	1.03	127
406	5.44	47.1	3.0	7.8	28.3	13.8	0.89	125
408	6.00	47.9	5.0	8.6	24.2	14.3	0.91	166
410	5.25	47.0	4.6	9.1	29.6	9.7	0.88	158
MEANS	5.40	49.4	3.8	7.8	26.6	12.4	0.98	155.

000724

(b) (4)

GROUP M 1 TEST 4001 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES D06

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
101	147	4.2	94	47	27	36	32.0	5.36	54.4
103	149	4.9	103	47	12	20	14.0	5.90	54.8
105	149	4.4	105	40	26	25	26.0	5.56	53.1
107	150	4.2	104	50	28	28	15.0	5.56	51.0
109	149	4.7	115	48	30	24	18.0	6.44	47.6
MEANS	149	4.5	104	46	25	27	21.0	5.76	52.2
NO.	A1	A2	B	G	AG RATIO	CHOL.			
101	1.9	5.7	25.7	12.3	1.19	176			
103	3.0	5.3	25.6	11.3	1.21	209			
105	1.6	4.7	25.8	14.8	1.13	155			
107	1.6	4.7	22.5	20.2	1.04	143			
109	1.4	7.6	28.9	14.5	0.90	150			
MEANS	1.9	5.6	25.7	14.6	1.09	167			

000725

99.

(b) (4)

GROUP F 1 TEST 4DU1 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
102	146	4.5	101	41	29	24	35.0	6.15	56.1
104	150	4.4	98	41	25	28	22.0	6.44	56.8
106	151	4.4	103	67	19	25	23.0	6.30	53.0
108	149	4.7	103	49	28	26	43.0	6.93	45.4
110	152	4.6	101	49	23	34	28.0	6.37	53.0
MEANS	150	4.5	101	49	25	27	30.2	6.44	52.9
NO.	A1	A2	B	G	AG RATIO	CHOL			
102	3.6	4.8	24.7	10.8	1.28	180			
104	3.1	4.3	24.7	11.1	1.32	135			
106	2.7	4.7	27.5	12.1	1.12	150			
108	3.6	7.2	31.4	12.4	0.83	292			
110	2.6	8.3	22.1	14.0	1.12	195			
MEANS	3.1	5.9	26.1	12.1	1.13	190			

000726

(b) (4)

GROUP	M 2 TEST	40U1	13TH WK	COMPOUND	(b) (4)	DOSE	800 PPM	ROUTE	DIET	SPECIES	DOG
NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB		
201	150	4.4	101	49	30	31	34.0	5.74	48.6		
203	151	4.8	105	43	29	19	24.0	5.66	55.2		
205	151	4.1	106	35	27	23	19.0	5.86	54.8		
207	151	4.6	100	38	20	22	21.0	5.34	61.8		
MEANS	151	4.5	103	41	27	24	24.5	5.65	55.1		
NO.	A1	A2	B	G	AG RATIO	CHOL					
201	1.3	4.5	28.9	16.7	0.94	127					
203	2.1	5.6	24.5	12.6	1.23	196					
205	1.5	5.2	23.7	14.8	1.21	148					
207	3.3	4.6	21.7	8.6	1.62	135					
MEANS	2.0	5.0	24.7	13.2	1.25	152					

000727

(b) (4)

GROUP F 2 TEST 4DQ1 13TH WK COMPOUND (b) (4) DOSE 800 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
202	152	4.2	97	49	24	31	22.0	6.62	51.1
204	151	4.4	100	45	24	22	30.0	5.58	53.3
206	150	5.0	102	59	22	25	20.0	5.80	60.1
208	149	5.0	97	54	14	22	22.0	6.60	56.8
MEANS	151	4.6	99	52	21	25	23.5	6.15	55.3
NO.	A1	A2	B	G	AG RATIO	CHOL			
202	2.7	5.5	24.2	16.5	1.04	178			
204	3.4	6.1	23.0	14.2	1.13	154			
206	2.7	6.1	23.0	8.1	1.50	180			
208	3.6	4.5	27.0	8.1	1.32	218			
MEANS	3.1	5.5	24.3	11.7	1.25	182			

000728

(b) (4)

GROUP M 3 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
301	149	4.8	99	50	25	25	20.0	5.74	52.2
303	151	4.9	109	64	29	32	21.0	6.40	49.8
305	151	4.8	107	41	18	22	14.0	5.53	54.7
307	149	4.7	106	38	18	26	16.0	5.74	51.9
MEANS	150	4.8	105	48	23	26	17.7	5.85	52.1

NO.	A1	A2	B	G	AG RATIO	CHOL
301	2.7	3.3	27.7	14.1	1.09	154
303	2.9	6.3	24.5	16.5	0.99	185
305	2.7	3.4	25.0	14.2	1.20	136
307	3.2	4.2	25.4	15.3	1.08	167
MEANS	2.9	4.3	25.6	15.0	1.09	161

000729

(b) (4)

GROUP F 3 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
302	152	5.1	90	51	25	32	13.0	5.95	61.2
304	153	4.8	103	38	21	29	20.0	5.80	64.2
306	152	4.8	99	38	21	18	16.0	6.10	57.0
308	150	4.2	94	34	28	30	16.0	5.62	55.4
MEANS	152	4.7	97	40	24	27	16.2	5.87	59.4

NO.	A1	A2	B	G	AG RATIO	CHOL
302	2.9	3.9	23.3	8.7	1.57	167
304	2.1	3.2	22.1	8.4	1.79	167
306	2.3	1.5	26.9	12.3	1.33	122
308	1.7	2.5	28.8	11.6	1.24	154
MEANS	2.2	2.8	25.3	10.2	1.48	152

000730

104

(b) (4)

GROUP M 4 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UREA	SGOT	SGPT	SAP	PROTEIN	ALB
401	150	4.5	95	46	30	27	13.0	5.60	50.8
403	150	4.9	105	46	34	49	22.0	5.64	53.0
405	150	5.2	98	54	24	21	37.0	5.39	53.0
407	151	4.7	99	48	28	30	12.0	5.06	54.1
409	154	4.4	98	46	27	31	52.0	5.74	46.7
MEANS	151	4.7	99	48	29	32	27.2	5.49	51.5
NO.	A1	A2	B	G	AG RATIO	CHOL			
401	2.5	6.3	25.3	15.1	1.03	159			
403	2.7	6.1	24.8	13.4	1.12	151			
405	2.9	4.1	27.7	12.3	1.12	170			
407	3.6	5.1	24.8	12.4	1.17	123			
409	3.7	8.1	27.9	13.6	0.87	218			
MEANS	3.1	5.9	26.1	13.4	1.06	164			

000731

(b) (4)

GROUP F 4 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 8000 PPM ROUTE DIET SPECIES DOG

NO.	NA	K	SUGAR	UPEA	SGOT	SGPT	SAP	PROTEIN	ALB
402	150	5.1	102	66	24	44	13.0	5.21	52.6
404	149	5.3	97	67	30	23	25.0	5.21	55.1
406	153	5.3	93	49	29	22	23.0	4.72	52.2
408	153	4.7	89	60	20	88	20.0	5.77	60.4
410	148	4.9	90	38	23	101	17.0	4.95	56.1
MEANS	151	5.1	94	56	25	56	19.6	5.17	55.3
NO.	A1	A2	B	G	AG RATIO	CHOL			
402	2.9	2.9	28.7	12.9	1.11	226			
404	3.5	5.2	26.7	9.5	1.23	101			
406	3.4	5.1	26.5	12.8	1.09	92			
408	0.9	5.4	19.8	13.5	1.52	146			
410	1.4	7.1	24.8	10.6	1.28	135			
MEANS	2.4	5.1	25.3	11.9	1.25	140			

000732

URINALYSIS

Dose Group	TEST No. 4001	0: WEEK			COMPOUND				Route Diet				SPECIES Dog					
		No. Sex	Vol. ml.	S.G.	pH	Test Strips				Sediment								
						Prot.	Sug.	Bile	Ket.	Blood	Casts	RBC.	WBC.	Epith. Cell	Urate	Oxal.	T. Phos.	
1	101	♂		>1035	7	1	0	0	0	0	0	0	0	0	2	0	0	2
	103			1026	9	2	0	0	0	0	0	0	0	0	0	0	0	2
	105			1013	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	107			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	3
	109			>1035	7	2	0	0	0	0	0	0	0	0	0	1	0	3
	102	♀		>1035	9	2	0	0	0	0	0	0	0	0	0	0	0	3
	104			>1035	8	0	0	0	0	0	0	0	0	0	0	0	0	3
	106			1024	7	0	0	0	0	0	0	0	0	0	0	0	1	0
	108			1021	9	0	0	0	0	0	0	0	0	0	0	0	0	3
	110			>1035	7	0	0	0	0	0	0	0	0	0	0	0	0	3

000733

URINALYSIS

TEST No.	Dose Group	No. Sex	0 WEEK		COMPOUND								Rcute Diet					SPECIES Dog				
			Vol. ml.	S.G.	pH	Test Strips				Sediment				WBC.	Epith. Cell.	Urate	Oxal.	T. Phos.				
						Prot.	Sup.	Bile	Ket.	Blood	Caats	RBC.										
2		201 ♂		1034	8	2	0	0	0	0	0	0	0	0	0	0	0	1	0	1	3	
		203		>1035	6	2	0	0	0	0	0	0	0	0	0	0	0	2	0	1	3	
		205		>1035	7	2	0	0	0	0	0	0	0	0	0	0	0	1	0	3	0	
		207		>1035	9	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
3		202 ♀		1050	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	
		204		1035	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
		206		>1035	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
		208		1023	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
3		301 ♂		1055	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
		303		>1035	8	3	0	0	0	0	0	0	0	0	0	0	0	1	2	0	1	
		305		>1035	9	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
		307		1034	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
3		302 ♀		>1035	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
		304		1034	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		306		>1035	9	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	
		308		1018	7	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	

000734

URINALYSIS

100

Dose Group	TEST No.	4001	0 - WEEK		Vol. ml.	S.G.	pH	COMPOUND								Route Diet						SPECIES Dog			
			Test Strips					Sediment																	
			Prot.	Sug.				Bile	Ket.	Blood	Casts	RBC.	WBC.	Epith. Cell	Urate	Oxal.	T. Phos.								
4	401	♂		1025	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	403			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	405			1033	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
	407			>1035	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
	409			1033	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	402	♀		1022	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	404			>1035	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
	406			1011	7	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3	
	408			1014	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
	410			1017	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

000735

URINALYSIS

Dose Group	TEST No.	4D01	9TH WEEK			COMPOUND				Route Diet				SPECIES DOG			
			No. Sex	Vol. ml.	S.G.	pH	Test Strips				Sediment						
							Prot.	Sug.	Bile	Ket.	Blood	Casts	RBC.	WBC.	Epith. Cell	Urate	Oxal.
2	221	♂		1034	9	1	0	0	0	0	0	0	0	0	0	0	0
	203			1011	9	1	0	0	0	1	0	0	0	0	0	0	0
	205			>1035	9	1	0	0	0	0	0	0	0	0	0	0	2
	207			>1035	9	1	0	0	0	0	0	0	0	0	0	0	2
	202	♀		1034	7	1	0	0	0	0	0	0	0	0	1	0	0
3	204			1014	7	0	0	0	0	0	0	0	0	0	0	1	0
	206			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0
	208			1025	8	0	0	0	0	0	0	0	0	0	0	0	0
	301	♂		1029	8	0	0	0	0	0	0	0	0	0	0	0	0
3	303			>1035	8	1	0	0	0	0	0	0	0	0	0	0	0
	305			>1035	8	1	0	0	0	0	0	0	0	0	0	0	1
	307			>1035	8	1	0	0	0	0	0	0	0	0	0	0	1
	302	♀		>1035	8	1	0	0	0	0	0	0	0	0	0	0	0
3	304			>1035	7	0	0	0	0	0	0	0	0	0	0	0	0
	306			>1-35	7	0	0	0	0	0	0	0	0	0	0	0	0
	308			>1035	6	1	0	0	0	0	0	0	0	0	1	0	0

000741

URINALYSIS

Dose Group	TEST No. 4001	No. Sex	Vol. ml.	S.G.	pH	COMPOUND				Route Diet				SPECIES DOC				
						9 th WEEK				D(4)				Sediment				
						Prot.	Sug.	Bile	Ket.	Blood	Casts	RBC.	WBC.	Epith. Cell	Urate	Oxal.	T. Phos.	
4	401	♂		>1035	9	1	0	0	0	0	0	0	0	0	0	0	0	0
	403			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	0
	405			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	0
	407			>1035	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	409			>1035	9	1	0	0	0	0	0	0	0	0	0	0	0	0
	402	♀		>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	3
	404			1034	7	1	0	0	0	0	0	0	0	0	0	0	0	3
	405			>1035	6	1	0	0	0	0	0	0	0	0	0	0	0	0
	406			>1035	7	1	0	0	0	0	0	0	0	0	0	0	0	0
	410			1029	8	1	0	0	0	0	0	0	0	0	0	0	1	3

000742

URINALYSIS

Dose Group	TEST No. 4001	13TH WEEK		COMPOUND		Route Diet				SPECIES Dog								
		No. Sex	Vol. ml.	S.G.	pH	Test Strips				Sediment								
						Prot.	Sug.	Bile	Ket.	Blood	Casts	RBC.	WBC.	Epith. Cell	Urate	Oxal.	T. Phos.	
2	201 ♂			1034	7	1	0	0	0	0	0	0	0	0	0	1	0	0
	203			>1035	8	1	0	0	0	0	0	0	0	0	0	0	0	0
	205			>1035	8	1	0	0	0	0	0	0	0	0	0	0	0	0
	207			>1035	6	1	0	0	0	0	0	0	0	0	0	0	0	3
	202 ♀			1035	6	0	0	0	0	1	0	0	0	0	0	1	0	3
	204			1014	7	0	0	0	0	0	0	0	0	0	0	0	0	0
	206			>1035	6	0	0	0	0	0	0	0	0	0	0	0	0	0
	208			>1035	6	0	0	0	0	0	0	0	0	0	0	1	0	0
3	301 ♂			>1035	7	0	0	0	0	0	0	0	0	0	0	0	0	1
	303			>1035	8	0	0	0	0	0	0	0	0	0	0	3	0	1
	305			>1035	7	2	0	0	0	0	0	0	0	0	0	0	0	0
	307			>1035	6	1	0	0	0	0	0	0	0	0	0	0	0	1
	302 ♀			>1035	6	0	0	0	0	0	0	0	0	0	0	0	0	1
	304			>1035	7	0	0	0	0	0	0	0	0	0	0	0	0	3
	306			>1035	6	0	0	0	0	0	0	0	0	0	0	2	0	0
	308			>1035	6	0	0	0	0	0	0	0	0	0	0	0	0	3

000744

INDIVIDUAL AUTOPSY REPORTSGroup 1 (Control)

- 105 ♂ Loss of hair on abdomen.
107 ♂ Scarring of capsule of the spleen.
102 ♀ Sidero fibrosis of splenic capsule.
104 ♀ Transverse scar on surface of spleen.
108 ♀ Oestrus. Cyst on anterior pituitary.

Group 2 (800 p.p.m.)

- 204 ♀ Oestrus. Granuloma in lungs.
208 ♀ Granuloma in lungs.

Group 3 (2,600 p.p.m.)

- 305 ♂ Right kidney much larger than left. Scar on right kidney near superior pole.
304 ♀ Granuloma in lungs.
306 ♀ Two cysts on anterior pituitary.

Group 4 (8000 → 5000 p.p.m.)

- 401 ♂ Granuloma in lungs.
405 ♂ Large cyst on anterior pituitary.
407 ♂ Granuloma in lungs.
402 ♀ Scarring at lower end of spleen. Oestrus.
406 ♀ Granuloma in lungs.

000746

KEY TO PRINT-OUT OF ORGAN WEIGHTS
AND RELATIVE ORGAN WEIGHTS

GROUP M	Males
GROUP F	Females
NO.	Animal Test Number
B.WT	Terminal Body Weight
L.THY	Left Thyroid
R.THY	Right Thyroid
L.ADREN	Left Adrenal
R.ADREN	Right Adrenal
L.GONAD	Left Testis or Ovary
R.GONAD	Right Testis or Ovary
L.KIDNEY	Left Kidney
R.KIDNEY	Right Kidney
DAYS	Number of Days on Test
P/UT	Prostate or Uterus
D.O	Organ not weighed

000747

ORGAN WEIGHTS

IN GRAMS

000748

TEST 401-1 13TH WK COMPOUND ROUTE DIET SPECIES DOG

(b) (4)

GROUP MEANS ORGAN WEIGHTS (grams)

GROUP	B.WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY
M 1	14300	0.5109	0.5054	0.5737	0.6355	13.2425	12.7725	31.6450	32.2575
M 2	13125	0.4608	0.5438	0.5996	0.6045	11.5075	11.7675	29.0100	28.4225
M 3	13750	0.4505	0.4832	0.5766	0.6095	11.7050	11.8750	29.9375	34.1400
M 4	12200	0.4395	0.4944	0.5774	0.6175	11.7250	11.9325	31.9050	30.5175
F 1	11750	0.4421	0.4465	0.6349	0.6843	0.7553	0.6663	27.0700	27.8400
F 2	11200	0.4122	0.4272	0.6879	0.7113	1.0641	0.7997	27.2050	27.4000
F 3	11000	0.3620	0.3485	0.5711	0.5788	0.4614	0.3997	25.3350	24.0950
F 4	9550	0.3790	0.3771	0.5397	0.5328	0.3825	0.4824	23.2950	22.6275
M+F 1	13025	0.4765	0.4760	0.6043	0.6599	6.9989	6.7194	29.3575	30.0487
M+F 2	12163	0.4365	0.4855	0.6438	0.6579	6.2858	6.2836	28.1075	27.9112
M+F 3	12025	0.4063	0.4159	0.5739	0.5942	6.0832	6.1373	27.6362	29.1175
M+F 4	10875	0.4092	0.4358	0.5586	0.5752	6.0538	6.2074	27.6000	26.5725

GROUP	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY
M 1	11.9633	5.0744	56.0450	108.3274	375.9548	76.0024	0.0817
M 2	12.1990	5.3764	47.1100	99.3949	338.1171	75.9524	0.0840
M 3	14.1250	3.3423	62.3825	94.3624	358.2346	75.0400	0.0757
M 4	14.1075	4.9960	95.6674	92.3500	377.3623	73.4150	0.0706
F 1	14.1000	6.8416	36.5925	93.5999	332.6472	73.8249	0.0799
F 2	10.7467	7.2694	72.5674	91.9133	312.3923	72.1675	0.0780
F 3	12.0333	2.5237	85.5875	74.7375	275.7124	68.2599	0.0738
F 4	9.2100	4.0018	55.2075	71.3075	294.5173	69.2750	0.0699
M+F 1	13.0317	5.9580	45.3187	100.9636	354.3007	74.9136	0.0808
M+F 2	11.3240	6.3229	59.8387	96.1885	325.2546	74.0599	0.0810
M+F 3	12.8700	2.0930	73.9849	84.5499	316.9731	71.6499	0.0747
M+F 4	11.6587	4.4989	75.4374	81.8286	335.9394	71.3449	0.0703

(b) (4)

GROUP M 1 TEST 4001 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUT

ORGAN WEIGHTS IN GRAMS

NO.	B.WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD
101	12800	0.4630	0.5432	0.5555	0.6440	9.9200
103	17000	0.5769	0.5956	0.5308	0.5912	13.1400
105	14100	0.4957	0.4484	0.6134	0.5976	13.4500
107	13300	0.5080	0.4345	0.5951	0.7093	16.4600
MEANS	14300	0.5109	0.5054	0.5737	0.6355	13.2425

NO.	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	P
101		4.7200	51.0600	109.0200	353.9099	75.8200	
103	10.7700	5.8482	50.3400	113.9200	461.0297	73.7700	
105	12.7300	3.1401	77.5100	101.9500	317.9799	75.5200	
107	12.3900	6.5893	45.2700	108.4200	370.8999	78.9100	
MEANS	11.9633	5.0744	56.0450	108.3274	375.9548	76.0024	

000750

GROUP M 2 TEST 4001 13TH WK COMPOUND DOSE 800 PPM ROUTE DIET SPECIES DOG

(b) (4)

ORGAN WEIGHTS IN GRAMS

NO.	B.WT.	L.THY	R.THY	L.ADREN	R.ADREN	L.GONAD	R.GONAD	L.KIDNEY	R.KIDNEY
201	11800	0.3094	0.4248	0.6372	0.6637	11.8900	11.8200	27.5600	26.17
203	14000	0.5982	0.7055	0.5974	0.6134	12.6600	12.7700	31.4300	30.17
205	14300	0.4089	0.5839	0.5588	0.5094	11.9300	12.8100	30.6100	31.03
207	12400	0.4465	0.4612	0.6652	0.6315	9.5500	9.6700	26.4400	26.32
MEANS	13125	0.4608	0.5438	0.5996	0.6045	11.5075	11.7675	29.0100	28.42

NO.	THYMUS	P/UT	SPLLEN	HEART	LIVER	BRAIN	PITUITARY	DAYS
201		2.0045	27.0500	81.0200	346.8698	71.9700	0.0822	92
203		5.4258	60.5900	103.4500	358.3698	83.9200	0.0850	92
205	14.0900	8.4242	55.6000	121.3400	349.0798	71.5300	0.1095	93
207	10.2900	5.6511	45.2000	91.7700	298.1499	76.3900	0.0592	95
MEANS	12.1900	5.3764	47.1100	99.3949	338.1171	75.9524	0.0840	

000751

125

(b) (4)

GROUP M 3 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

ORGAN WEIGHTS IN GRAMS

NO.	R. WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY
301	13000	0.5458	0.6335	0.6899	0.6643	11.6800	11.7100	31.1300	30.7900
303	12000	0.4274	0.5002	0.5382	0.5236	11.0200	11.5300	30.1400	31.2300
305	13500	0.3949	0.3437	0.6273	0.7308	11.2200	11.2600	26.6000	45.2400
307	13700	0.4341	0.4554	0.4511	0.5193	12.9000	13.0000	31.8800	29.3000
MEANS	13050	0.4505	0.4832	0.5766	0.6095	11.7050	11.8750	29.9375	34.1400

NO.	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS
301		2.4193	39.5900	89.9800	354.2797	77.7100	0.0715	92
303		2.5832	27.3300	87.7300	376.0598	75.7500	0.0764	92
305	16.0100	3.8919	127.2100	106.8000	356.2998	73.0400	0.0708	93
307	12.2400	4.4749	55.4000	92.9400	346.2998	73.6600	0.0841	95
MEANS	14.1250	3.3423	62.3825	94.3624	358.2346	75.0400	0.0757	

000752

GROUP M 4 TEST 4D01 13TH WK COMPOUND DOSE 5000 PPM ROUTE DIET SPECIES DOG

(b) (4)

NO.	B.WT	13TH WK		COMPOUND		DOSE		ROUTE		DIET		SPECIES	DOG
		L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY				
401	12800	0.5567	0.6125	0.6480	0.6321	10.0700	11.2200	11.0700	11.2200	33.0600	30.340	L. KIDNEY	R. KIDNEY
403	10500	0.4630	0.5062	0.4093	0.3817	11.0300	11.2400	11.0300	11.2400	25.0500	24.410	L. KIDNEY	R. KIDNEY
405	14400	0.3776	0.5127	0.6968	0.7858	14.4200	13.2200	14.4200	13.2200	38.2600	36.460	L. KIDNEY	R. KIDNEY
407	11100	0.3607	0.3484	0.5556	0.6705	11.3800	12.0500	11.3800	12.0500	31.2500	30.860	L. KIDNEY	R. KIDNEY
MEANS	12200	0.4395	0.4944	0.5774	0.6175	11.7250	11.9325	11.7250	11.9325	31.9050	30.517	L. KIDNEY	R. KIDNEY

NO.	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS	
								L. KIDNEY	R. KIDNEY
401	14.3000	3.4556	79.4100	98.3100	365.5598	77.4500	0.0512	92	92
403	13.5500	5.6887	46.4400	72.2000	297.2897	63.2700	0.0672	92	92
405	21.9300	5.5041	182.1500	108.9800	484.8498	70.1900	0.1023	92	92
407	6.6500	5.3356	74.6700	89.9100	361.7500	82.7500	0.0617	92	92
MEANS	14.1075	4.9960	95.6674	92.3500	377.3623	73.4150	0.0706	92	92

000753

(b) (4)

GROUP F 1 TEST 4001 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

ORGAN WEIGHTS IN GRAMS

NO.	B.WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY
102	12400	0.4305	0.4521	0.6231	0.7837	0.6787	0.6243	26.3900	28.0400
104	11300	0.3728	0.4283	0.7185	0.6515	0.4075	0.2987	22.0300	25.0000
106	9400	0.3913	0.3310	0.5734	0.5884	0.4499	0.3765	22.2300	22.0800
108	13900	0.5739	0.5746	0.6245	0.7135	1.4860	1.3659	37.6300	36.2400
MEANS	11750	0.4421	0.4465	0.6349	0.6843	0.7553	0.6663	27.0700	27.8400

NO.	THYMDS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS
102		8.9265	46.3900	108.8600	325.1699	77.2500	0.0787	92
104	12.5300	1.8526	49.3400	81.5200	247.7300	75.6200	0.0681	93
106	11.9700	2.4270	22.6600	82.2600	300.3698	60.6600	0.0728	95
108	17.8900	14.1604	27.9800	101.7600	457.3198	81.7700	0.1000	95
MEANS	14.1000	6.8416	36.5925	93.5999	332.6472	73.8249	0.0799	

000754

28.

(b) (4)

GROUP	F 2 TEST 4D01	13TH WK	COMPOUND	DOSE		800 PPM	ROUTE	DIET	SPECIES	DOG
ORGAN WEIGHTS IN GRAMS										
NO.	R.WT	L.THY	R.THY	L.ADREN	R.ADREN	L.GONAD	R.GONAD	L.KIDNEY	R.KIDNEY	
202	9600	0.2922	0.3033	0.7698	0.8246	0.8052	0.5612	23.5100	23.7400	
204	11600	0.4477	0.4490	0.6215	0.5763	2.2145	1.5558	25.7100	27.3700	
206	13200	0.4764	0.5524	0.6360	0.7125	0.6108	0.4978	27.6500	27.5800	
208	10400	0.4326	0.4040	0.7242	0.7319	0.6259	0.5842	31.9500	30.9100	
MEANS	11200	0.4122	0.4272	0.6879	0.7113	1.0641	0.7997	27.2050	27.4000	
NO.	THYMDS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS		
202		4.6920	75.8100		271.7998	75.0700	0.0726	92		
204	10.220	15.3134	48.1900	94.1500	332.2099	76.6700	0.0794	93		
206	8.2500	5.0448	75.3800	93.9500	310.8999	75.7700	0.0878	95		
208	13.7700	4.9275	90.8900	87.6400	334.6599	61.1600	0.0731	95		
MEANS	10.7467	7.2694	72.5674	91.9133	312.3923	72.1675	0.0780			

000755

(b) (4)

GROUP F 3 TEST 4D01 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

ORGAN WEIGHTS IN GRAMS

NO.	B.WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY
302	12100	0.3505	0.3026	0.6035	0.5973	0.6031	0.5424	25.4900	23.2200
304	10000	0.3265	0.3530	0.5298	0.5845	0.3525	0.2891	21.8100	22.3600
306	12600	0.4073	0.4168	0.5582	0.5726	0.5031	0.4337	31.9100	30.1400
308	9300	0.3637	0.3218	0.5930	0.5709	0.3870	0.3335	22.1300	20.6600
MEANS	11000	0.3620	0.3485	0.5711	0.5788	0.4614	0.3997	25.3350	24.0950

NO.	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS
302		2.9789	121.7200	84.9200	287.3193	60.7900	0.0642	92
304	7.5800	2.0954	88.6400	70.2700	265.5898	71.1400	0.0636	93
306	17.1900	2.6104	65.2900	74.4100	291.6999	74.4100	0.0954	93
308	11.3300	2.4102	66.7000	69.3500	258.2399	66.7000	0.0710	95
MEANS	12.0333	2.5237	85.5875	74.7375	275.7124	68.2599	0.0738	

000756

(b) (4)

GROUP F 4 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 5000 PPM ROUTE DIET SPECIES DOC

ORGAN WEIGHTS IN GRAMS

NO.	B.WT	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY
402	11700	0.3787	0.3712	0.6731	0.7055	0.4389	0.9386	25.6800	25.7000
404	8000	0.4926	0.5082	0.5424	0.5293	0.3411	0.2968	20.9600	20.1500
406	9200	0.3003	0.2731	0.4486	0.4435	0.3719	0.3049	22.5400	21.4800
408	10300	0.3443	0.3561	0.4949	0.4531	0.3783	0.3892	24.0000	23.1800
MEANS	9550	0.3790	0.3771	0.5397	0.5328	0.3825	0.4824	23.2950	22.6275
NO.	THYMUS	P/UT	SPLEEN	HEART	LIVER	BRAIN	PITUITARY	DAYS	
402	11.3700	11.0700	32.1300	73.7800	328.3698	66.1900	0.0766	92	
404	5.0700	1.8632	45.2800	64.3400	275.0397	66.9200	0.0604	92	
406	6.8500	1.2987	55.4100	65.7100	262.5898	73.1200	0.0598	92	
408	13.5500	1.7758	88.0100	81.4000	312.0698	70.8700	0.0829	92	
MEANS	9.2100	4.0018	55.2075	71.3075	294.5173	69.2750	0.0699		

000757

(b) (4)

(b) (4)

TEST 4001 13TH WK COMPOUND ROUTE DIET SPECIES DOG

GROUP MEANS ORGAN WEIGHTS AS % BRAIN WEIGHT

GROUP	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS
M 1	0.6732	0.6671	0.7547	0.8353	17.3918	16.7602	41.7633	42.5707	15.7198
M 2	0.6025	0.7127	0.7927	0.7980	15.1956	15.5519	38.2877	37.5371	16.5842
M 3	0.5991	0.6411	0.7674	0.8129	15.6131	15.8387	39.8865	45.6413	19.2632
M 4	0.6061	0.6849	0.7869	0.8373	16.1829	16.4121	43.6378	41.7490	19.7899
F 1	0.5993	0.6000	0.8664	0.9297	0.9937	0.8736	36.4901	37.5191	19.3570
F 2	0.5773	0.5948	0.9649	0.9968	1.4476	1.0972	38.3957	38.5653	15.5776
F 3	0.5320	0.5091	0.8442	0.8533	0.6860	0.5954	37.1628	35.2769	16.9144
F 4	0.5512	0.5490	0.7848	0.7757	0.5538	0.7069	33.7023	32.7555	13.3104
M+F 1	0.6353	0.6335	0.8106	0.8825	9.1928	8.8169	39.1266	40.0449	17.5394
M+F 2	0.5899	0.6538	0.8788	0.8974	8.3221	8.3246	38.3417	38.0512	15.9802
M+F 3	0.5656	0.5751	0.8058	0.8331	8.1495	8.2170	38.5247	40.4591	17.8559
M+F 4	0.5786	0.6170	0.7859	0.8065	8.3683	8.5595	38.6700	37.2517	16.5501

GROUP	P/UT	SPLEEN	HEART	LIVER	PITUITARY
M 1	6.6656	73.8986	142.6563	495.7182	0.1077
M 2	7.1064	61.6711	131.4038	446.8295	0.1115
M 3	4.4817	84.1000	125.9999	477.5734	0.1010
M 4	6.9356	131.4189	126.2410	517.4487	0.0982
F 1	8.8309	49.2181	127.1940	450.7434	0.1986
F 2	9.8666	102.9836	136.0295	439.2165	0.1086
F 3	3.7418	128.1431	110.6109	406.2895	0.1078
F 4	5.9475	79.0424	103.0839	426.6401	0.1012
M+F 1	7.7482	61.5582	134.9251	473.2307	0.1081
M+F 2	8.4865	82.3273	130.8148	442.5227	0.1101
M+F 3	4.1118	106.1215	118.3054	441.9311	0.1044
M+F 4	6.4415	105.2305	114.6624	472.0441	0.0997

000759

(b) (4)

GROUP M 1 TEST 4DC1 13TH WK COMPOUND (b) (4) DOSE CONTROL ROUTE DIET SPECIES DOG

WEIGHTS AS % OF BRAIN WEIGHT

NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS
101	0.6107	0.7164	0.7327	0.8494	13.0836	12.2395	39.8575	44.8634	
103	0.7820	0.8074	0.7195	0.8014	17.8121	16.4837	52.5959	51.2946	14.5994
105	0.6564	0.5937	0.8122	0.7913	17.8098	17.2405	38.4401	38.8109	16.8565
107	0.6439	0.5507	0.7542	0.8990	20.8618	21.0773	36.1597	35.3739	15.7634
MEANS	0.6732	0.6671	0.7547	0.8353	17.3918	16.7602	41.7633	42.5707	15.7199
NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY				
101	6.2253	67.3437	143.7879	466.7761	0.1155				
103	7.9276	68.2391	154.4259	624.9553	0.1196				
105	4.1580	102.6351	134.9974	421.0937	0.0965				
107	8.3515	57.3764	137.4145	470.0883	0.0991				
MEANS	6.6656	73.8986	142.6563	495.7182	0.1077				

094000

GROUP 42 TEST 4001 13TH WK COMPOUND DOSE 800 PPM ROUTE DIET SPECIES DOG

(b) (4)

WEIGHTS AS % OF BRAIN WEIGHT

NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMS
201	0.5411	0.5902	0.8854	0.9222	16.5208	16.4235	38.2937	36.3623	
203	0.7128	0.8407	0.7119	0.7309	15.0858	15.2169	37.4523	35.9509	
205	0.5716	0.8163	0.7812	0.7121	16.6783	17.9086	42.7932	43.3804	19.6990
207	0.5946	0.6037	0.7922	0.8267	12.5016	12.6537	34.6118	34.4547	13.4703
MEANS	0.6025	0.7127	0.7927	0.7980	15.1966	15.5519	38.2877	37.5371	16.5842

NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY
201	2.7852	37.5851	112.5747	481.9641	0.1142
203	6.4654	72.1997	123.2722	427.0371	0.1013
205	11.7772	77.7296	169.6351	448.0183	0.1531
207	7.3977	59.1700	120.1334	390.2990	0.0775
MEANS	7.1064	61.6711	131.4038	446.8295	0.1115

000761

(b) (4)

GROUP 13 TEST 4001 13TH WK COMPOUND (b) (4) DOSE 2600 PPM ROUTE DIET SPECIES DOG

WEIGHTS AS % OF BRAIN WEIGHT

NO.	L.THY	R.THY	L.ADREN	R.ADREN	L.GONAD	R.GONAD	L.KIDNEY	R.KIDNEY	THYMUS
301	0.7024	0.8152	0.8878	0.8548	15.0302	15.0688	40.0592	39.6216	
303	0.5642	0.6603	0.7105	0.6912	14.5479	15.2211	39.7888	41.2277	
305	0.5407	0.4706	0.8588	1.0605	15.3614	15.4162	36.4184	61.9386	21.9195
307	0.5993	0.6182	0.6124	0.7050	17.5129	17.6486	43.2799	39.7773	16.6169
MEANS	0.5991	0.6411	0.7674	0.8129	15.6131	15.8387	39.8865	45.6413	19.2682
NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY				
301	3.1132	50.9458	115.7894	455.8994	0.0920				
303	3.4102	36.0792	115.8152	496.4482	0.1009				
305	5.3284	174.1648	146.2212	487.8142	0.0969				
307	6.0751	75.2104	126.1743	470.1323	0.1142				
MEANS	4.4817	84.1000	125.9999	477.5734	0.1010				

000762

GROUP	W 4	TEST	4D01	13TH	WK	COMPOUND	(b) (4)		DOSE	5000	PPM	ROUTE	DIET	SPECIES	DOG
WEIGHTS AS % OF BRAIN WEIGHT															
NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS				
401	0.7188	0.7883	0.8367	0.8161	0.8019	0.8161	13.0019	14.4868	42.6856	39.1736	18.4635				
403	0.7318	0.8001	0.6469	0.6033	17.4332	17.7651	39.5922	18.8346	54.5092	51.9447	31.2437				
405	0.5380	0.7304	0.9927	1.1195	20.5442	18.8346	14.5619	37.7643	43.6370	41.7480	19.7899				
407	0.4359	0.4210	0.6714	0.8103	13.7523	16.1829	16.4121								
MEANS	0.6061	0.6849	0.7869	0.8373	16.1829	16.4121									

NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY
401	4.4617	102.5306	126.9335	471.9941	0.0661
403	8.9911	73.3997	114.1141	469.8745	0.1062
405	7.8417	250.5097	155.2643	690.7673	0.1457
407	6.4479	90.2356	109.6525	437.1596	0.0746
MEANS	6.9356	131.4189	126.2410	517.4487	0.0982

000763

(b) (4)

GROUP	F 1 TEST 4001	13TH WK	COMPOUND	(b) (4)	DOSE	CONTROL	ROUTE	DIET	SPECIES	DOG
WEIGHTS AS % OF BRAIN WEIGHT										
NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS	
102	0.5573	0.5852	0.8066	1.0145	0.8786	0.8082	34.1618	36.2977		
104	0.4930	0.5664	0.9501	0.8615	0.5389	0.3950	29.1325	33.0600	16.5697	
106	0.6451	0.5457	0.9453	0.9700	0.7400	0.6207	36.6468	36.3995	19.7329	
108	0.7018	0.7027	0.7637	0.8726	1.8173	1.6704	46.0193	44.3194	21.7683	
MEANS	0.5993	0.6000	0.8664	0.9297	0.9937	0.8736	36.4901	37.5191	19.3570	
NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY					
102	11.5553	60.0518	140.9190	420.9316	0.1019					
104	2.4499	65.2472	107.8021	327.5931	0.0901					
106	4.0010	37.3557	135.6083	495.1691	0.1200					
108	17.3173	34.2179	124.4466	559.2753	0.1223					
MEANS	8.8309	49.2181	127.1940	450.7434	0.1086					

000764

GROUP	F 2 TEST	4001	13TH WK	COMPOUND	DOSE 800 PPM		ROUTE	DIET	SPECIES	DOG
WEIGHTS AS % OF BRAIN WEIGHT										
NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS	
202	0.3892	0.4040	1.0254	1.0984	1.0726	0.7476	31.3174	31.6238	13.3293	
204	0.5839	0.5856	0.8106	0.7517	2.8883	2.0292	33.5333	35.6984	10.8882	
206	0.6287	0.7290	0.8394	0.9403	0.8061	0.6570	36.4920	36.3996	22.5147	
208	0.7073	0.6606	1.1841	1.1967	1.0234	0.9552	52.2400	50.5395		
MEANS	0.5773	0.5948	0.9649	0.9968	1.4476	1.0972	38.3957	38.5653	15.5776	

NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY
202	6.2502	100.9857		362.0615	0.0967
204	19.9731	62.8537	122.7989	433.2978	0.1023
206	6.6580	99.4852	123.9936	410.3200	0.1159
208	6.5852	148.6102	143.2962	547.1870	0.1195
MEANS	9.8666	102.9836	130.0295	438.2165	0.1086

(b) (4)

(b) (4)

000765

(b) (4)

GROUP	F 3	TEST 4001	13TH WK	COMPOUND	DOSE	2600 PPM	ROUTE	DIET	SPECIES	DOG
WEIGHTS AS % OF BRAIN WEIGHT										
	NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS
	302	0.5766	0.4978	0.9928	0.9661	0.9921	0.8923	41.9312	38.1970	10.6550
	304	0.4500	0.4962	0.7447	0.8216	0.4955	0.4064	30.6578	31.4309	23.1017
	306	0.5474	0.5601	0.7502	0.7695	0.6761	0.5829	42.8840	40.5053	16.9865
	308	0.5453	0.4825	0.8891	0.8559	0.5802	0.5000	33.1784	30.9745	
MEANS		0.5320	0.5091	0.8442	0.8533	0.6860	0.5954	37.1628	35.2769	16.9144

(b) (4)

NO.	P/UT	SPLEEN	HEART	LIVER	PITUITARY
302	4.9003	200.2302	139.6940	472.6425	0.1056
304	2.9455	124.5993	98.7770	373.3334	0.0894
306	3.5081	87.7435	100.0000	392.0166	0.1296
308	3.6135	100.0000	103.9730	387.1660	0.1064
MEANS	3.7418	128.1431	110.6109	406.2895	0.1078

000766

(b) (4)

GROUP	TEST	4DOL	13TH WK	COMPOUND	DOSE	5000 PPM	ROUTE	DIET	SPECIES	DOG
WEIGHTS AS % OF BRAIN WEIGHT										
NO.	L. THY	R. THY	L. ADREN	R. ADREN	L. GONAD	R. GONAD	L. KIDNEY	R. KIDNEY	THYMUS	
402	0.5721	0.5603	1.0169	1.0659	0.6631	1.4180	38.7974	38.8276	17.1778	
404	0.7361	0.7594	0.8105	0.7909	0.5097	0.4435	31.3209	30.1105	7.5762	
406	0.4107	0.3735	0.6135	0.6065	0.5086	0.4170	30.0260	29.3763	9.3682	
408	0.4858	0.5025	0.5933	0.6393	0.5338	0.5492	33.8648	32.7677	19.1195	
MEANS	0.5512	0.5490	0.7848	0.7757	0.5538	0.7069	33.7023	32.7555	13.3104	

(b) (4)

NO.	P/UIT	SPLEEN	HEART	LIVER	PITUITARY
402	16.7246	48.5420	111.4670	496.1015	0.1157
404	2.7842	67.6629	96.1446	410.9975	0.0903
406	1.7754	75.7795	89.8659	359.1213	0.0818
408	2.5057	124.1851	114.8582	440.3408	0.1170
MEANS	5.9475	79.0424	103.0839	426.6401	0.1012

000767

141.



TX

HISTOPATHOLOGY REPORT - (b) (4)

In all groups, minute foci of calcification occurred in the kidney medulla. This is a common finding in beagle dogs and is of no significance.

In the majority of dogs, the red pulp of the spleen was very congested so that the architecture was partially or completely obscured. This effect was caused by the use of pentobarbital for euthanasia and has no other significance.

Small granulomata (probably parasitic in origin) were seen in some animals, notably in the livers and lungs. These changes are a common occurrence in this dog colony.

In group 4 (8000 → 5000 p.p.m.) 4/8 livers showed a minimal hypertrophy of periportal hepatocytes characterised by slight enlargement, margination of organelles and a foamy appearance of the cytoplasm. This change is interpreted as a phenomenon of an adaptive nature.

.. Apart from liver cell hypertrophy, no changes related to the administration of (b) (4) were seen.

At lower dose levels hepatocyte hypertrophy was not seen.

INDIVIDUAL HISTOPATHOLOGY REPORTSGroup 1 (Control)

- 101 ♂ Kidney: Few minute foci of calcification in medulla.
 Liver: Small granuloma.
 Spleen: Congested.
- 103 ♂ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.
- 105 ♂ Kidney: Few minute foci of calcification in medulla.
 Liver: Small eosinophil granuloma in parenchyma.
 Spleen: Congested.
- 107 ♂ Kidney: Few minute foci of calcification in medulla.
 Skin: Focus of superficial dermatitis.
 Spleen: Congested.
- 102 ♀ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.
- 104 ♀ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.
- 106 ♀ Trachea: Focal tracheitis.
- 108 ♀ Kidney: Few small foci of calcification in medulla.
 Mammary gland: Marked development with active secretion.
 Pituitary: Cyst in adenohypophysis.
 Skin: Slight acanthosis with minimal inflammatory
 reaction around some hair follicles.
 Spleen: Congested.

Group 2 (800 p.p.m.)

- 201 ♂ Spleen: Congested.
- 203 ♂ Liver: One or two microscopic granulomata in parenchyma.
 Skin: Focal area of dermatitis (superficial).
 Spleen: Congested.
- 204 ♀ Lungs: Granuloma.
- 205 ♂ Lungs: Small granuloma.
 Pituitary: Cyst in adenohypophysis.
 Spleen: Congested.

000769

207 ♂ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.

202 ♀ Spleen: Congested.

204 ♀ Spleen: Congested.

206 ♀ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.

208 ♀ Kidney: Few minute foci of calcification in medulla.
 Lungs: Granuloma. Acute pneumonia (focal).
 Spleen: Congested.

Group 3 (2600 p.p.m.)

301 ♂ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.

303 ♂ Spleen: Congested.

304 ♀ Lungs: Granuloma.

305 ♂ Kidney: Few minute foci of calcification in medulla.
 Liver: Focus of myelopoeisis.
 Spleen: Congested.

307 ♂ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.

302 ♀ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.
 Trachea: Mild tracheitis.

304 ♀ Spleen: Congested.

306 ♀ Kidney: Few minute foci of calcification in medulla.
 Pituitary: Cysts in adenohiphysis.
 Skin: Focal area of dermatitis with hyperkeratosis.
 Spleen: Congested.

308 ♀ Kidney: Few minute foci of calcification in medulla.
 Liver: Small granuloma.
 Mammary gland: Overlying dermatitis.
 Spleen: Congested.

Group 4 (8000 → 5000 p.p.m.)

- 401 ♂ Kidney: Few minute foci of calcification in medulla.
 Liver: Minimal hypertrophy of periportal hepatocytes.
 Lungs: Focal granulomatous reaction.
 Spleen: Congested.
- 403 ♂ Kidney: Few minute foci of calcification in medulla.
 Skin: Small focus of dermatitis (superficial).
 Spleen: Congested.
- 405 ♂ Kidney: Few minute foci of calcification in medulla.
 Liver: Minimal hypertrophy of periportal hepatocytes.
 Lungs: Few small granulomata and interstitial pneumonitis.
 Pituitary: Cyst in adenohipophysis.
 Spleen: Congestion.
- 407 ♂ Liver: Small granuloma.
 Pituitary: Small cyst in adenohipophysis.
 Spleen: Congested.
 Lungs: Granulomata.
- 402 ♀ Lungs: Minimal hypertrophy of periportal hepatocytes.
 Spleen: Congested.
- 404 ♀ Liver: Few very small granuloma in parenchyma.
 Spleen: Congested.
- 406 ♀ Kidney: Few minute foci of calcification in medulla.
 Spleen: Congested.
 Lungs: Granuloma.
- 408 ♀ Liver: Slight hypertrophy of periportal hepatocytes.
 Spleen: Congested.

(b) (4)

GROUP MEAN WEEKLY BODYWEIGHTS

RECOVERY EXPERIMENT

KG ♂
13.0

12.0

11.0

GROUP CONTROL
GROUP 2: 5000 ppm

KG ♀
11.0

10.0

13 14 15 16 17
WEEKS ON TEST

RECOVERY EXPERIMENT

WEEKLY BODYWEIGHT IN KILOS DURING TEST PERIOD

Compound	Dose Level CONTROL														Route			DIET			Group 1		
	14	15	16	17	18	19	20	21	22	23	24	25	26	27									
109 ♂	12.70	12.80	12.80	12.80																			
110 ♀	10.70	10.40	10.50	10.30																			
♂ Total																							
♂ Mean																							
♀ Total																							
♀ Mean																							
Group Total																							
Group Mean	11.70	11.60	11.65	11.55																			

(b) (4)

RECOVERY EXPERIMENT

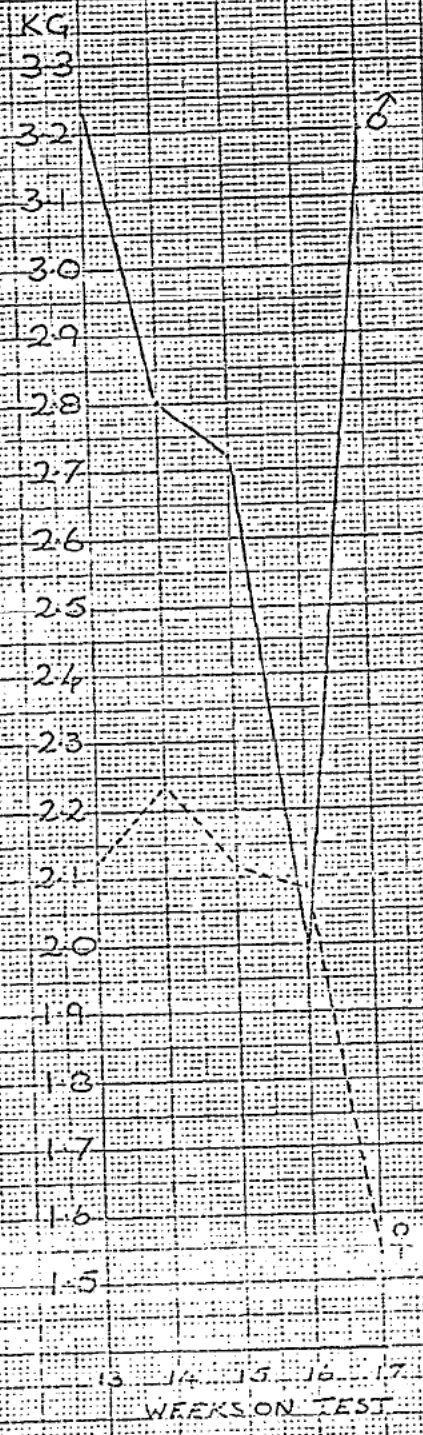
WEEKLY BODYWEIGHT IN KILOS DURING TEST PERIOD

Compound	(b) (4)													
	Dose Level 5000 ppm.							Route DIET				Group 4		
Number & Sex	14	15	16	17	18	19	20	21	22	23	24	25	26	27
409 ♂	11.20	11.10	11.60	11.70										
410 ♀	10.00	10.00	10.40	10.30										
♂ Total														
♂ Mean														
♀ Total														
♀ Mean														
Group Total														
Group Mean	10.60	10.55	11.00	11.00										

000775

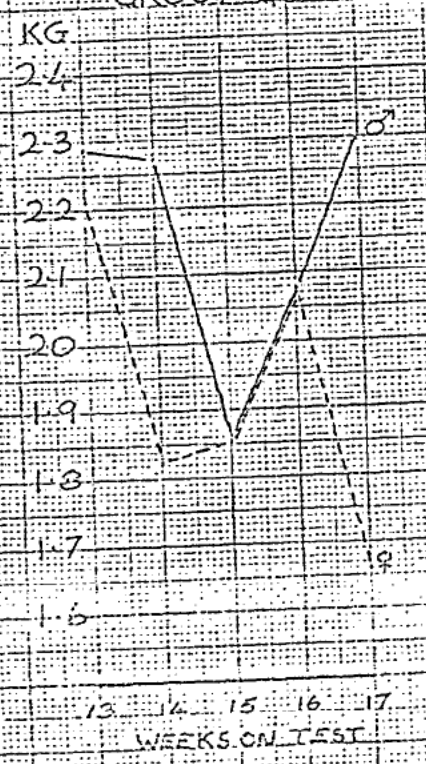
(b) (4)

MEAN WEEKLY FOOD INTAKE
GROUP 1 CONTROL



(b) (4)

MEAN WEEKLY FOOD INTAKE
GROUP 4, 5000 ppm (RECOVERY EXPERIMENT)



000777

RECOVERY EXPERIMENT

WEEKLY FOOD INTAKE IN KILOS DURING TEST PERIOD

Compound	<u>Dose Level</u> CONTROL				<u>Route</u> DIET							<u>Group</u> 1		
Number & Sex	14	15	16	17	18	19	20	21	22	23	24	25	26	27
109 ♂	2.800	2.720	1.995	3.214										
110 ♀	2.238	2.114	2.083	1.539										
♂ Total														
♂ Mean														
♀ Total														
♀ Mean														
Group Total														
Group Mean	2.519	2.417	2.039	2.427										

000778

52

RECOVERY EXPERIMENT

WEEKLY FOOD INTAKE IN KILOS DURING TEST PERIOD

<u>Compound</u>	(b) (4)													<u>Dose Level</u>	<u>Route</u>	<u>Group</u>	
<u>Number & Sex</u>	14	15	16	17	18	19	20	21	22	23	24	25	25	27	5000 ppm	DIET	4
409 ♂	2.271	1.862	2.076	2.305													
410 ♀	1.824	1.852	2.073	1.660													
♂ Total																	
♂ Mean																	
♀ Total																	
♀ Mean																	
Group Total																	
Group Mean	2.048	1.857	2.075	1.983													

000779

(b) (4) (RECOVERY EXPERIMENT)

AUTOPSY REPORT

Group 1 (Control)

110 ♀ Ascarid granuloma in the lungs.

Group 4 (5000 p.p.m.)

409 ♂ Cyst on anterior pituitary.

410 ♀ Ascarid granuloma in the lungs.

000783

GROUP 1		TEST No. 4 DO 1				COMPOUND				DOSE CONTROL ROUTE DIET				SPECIES DOG					
Animal No.	Sex	Body weight	Thyroids		Adrenals		Kidneys		Gonads		Prostate or Uterus	Thymus	Heart	Lungs	Spleen	Liver	Pituitary	Brain	Days on Test
			L	R	L	R	L	R	L	R									
109	♂	12200	0.419	0.437	0.610	0.655	31.22	30.96	11.80	11.31	4.335	10.03	93.06		31.94	369.39	0.069	68.85	126
110	♀	9900	0.295	0.312	0.440	0.489	25.12	26.45	0.424	0.315	0.650	11.03	77.90		43.87	259.00	0.063	80.15	126
	♂ Mean																		
	♀ Mean																		
	Group Mean	11050	0.357	0.375	0.525	0.572	28.17	33.21				10.53	87.98		37.91	314.40	0.066	74.50	
GROUP 4																			
DOSE 5000ppm																			
409	♂	11400	0.481	0.607	0.602	0.613	28.45	27.66	11.15	11.08	4.462	16.77	83.37		78.05	345.98	0.075	74.40	119
410	♀	10000	0.262	0.278	0.619	0.684	28.09	26.70	0.469	0.416	2.411	12.60	91.62		46.43	294.75	0.068	62.30	119
	♂ Mean																		
	♀ Mean																		

GROUP 1 TEST No. 4D01 COMPOUND (b) (4) DOSE CONTROL ROUT

Animal No. Sex	Body-weight	Thyroids		Adrenals		Kidneys		Gonads		Prostate or Uterus	Thymus	Heart	Lungs	Spleen
		L	R	L	R	L	R	L	R					
109 ♂		0.609	0.635	0.886	0.951	45.34	44.97	18.14	16.43	6.296	14.57	142.43		46.
110 ♀		0.368	0.389	0.549	0.610	32.34	31.75	0.529	0.393	0.811	13.76	97.19		54.
♂ Mean														
♀ Mean														
Group Mean		0.489	0.512	0.718	0.781	38.84	38.36	X	X	X	14.17	119.81		50.

GROUP 4 DOSE 5000 ppm

409 ♂		0.647	0.816	0.809	0.824	38.24	37.18	14.99	14.89	6.000	22.54	112.06		104
410 ♀		0.453	0.446	0.944	1.089	45.09	42.86	0.753	0.668	3.870	20.22	147.06		74.
♂ Mean														
♀ Mean														

000785

RECOVERY EXPERIMENT
HISTOPATHOLOGY REPORT

Control (Recovery)

109 ♂	Kidney:	Acute inflammation of papilla (unilateral).
	Liver:	Minimal mononuclear infiltration around some central veins.
	Skin:	Acanthosis.
110 ♀	Kidney:	Minute foci of calcification in medulla.
	Liver:	Few small granulomata in parenchyma (?parasitic).
	Spleen:	Congested.
	Trachea:	Minimal tracheitis.

Group 4 (Recovery)

409 ♂	Kidney:	Few minute foci of calcification in medulla.
	Lungs:	Few small granulomas.
	Spleen:	Congested.
410 ♀	Bladder:	Lymphoid hyperplasia in submucosa.
	Kidney:	Minute foci of calcification in medulla.
	Spleen:	Congested.

000786

FOOD CONVERSION RATIO

4001

COMPOUND:

(b) (4)

SPECIES: DOG

DURATION: 13 WEEKS

Animal Number	Group 1 (Control)					Animal Number	Group 2 (800 p.p.m.)				
	Pre-test	Month Number			Recovery		Pre-test	Month Number			
		1	2	3	4			1	2	3	4
101 ♂	0	-4.24	-1.93	0		201 ♂	22.56	-5.11	3.49	0.83	
103 ♂	4.65	3.97	9.50	2.43		203 ♂	-3.54	3.17	6.56	4.61	
105 ♂	14.46	2.17	6.94	2.67		205 ♂	0	0	1.93	6.64	
107 ♂	3.33	-0.55	2.56	4.73		207 ♂	-7.08	3.86	3.90	0	
109 ♂	-3.36	4.35	4.24	3.51	0.93						
Mean	3.82	1.14	4.26	2.67		Mean	2.99	0.48	3.97	3.02	
102 ♀	11.80	0	3.73	1.03		202 ♀	-13.78	-2.37	4.84	1.28	
104 ♀	-13.93	2.54	7.20	7.43		204 ♀	-11.72	3.26	-5.45	4.21	
106 ♀	20.00	2.88	2.51	2.51		206 ♀	18.00	3.99	2.81	0	
108 ♀	0	-1.05	4.04	9.38		208 ♀	0	4.96	-0.94	2.65	
110 ♀	-17.36	2.09	0	4.65	-5.01						
Mean	0.10	1.29	3.50	5.00		Mean	-1.88	2.46	0.32	2.04	

000787
28200

FOOD CONVERSION RATIO

4001

COMPOUND:

(b) (4)

SPECIES:

DOG

DURATION:

13 WEEKS

Animal Number	Group 3 (2600 p.p.m.)					Animal Number	Group 4 (8000 → 5000 p.p.m.)				
	Month Number				Recovery		Month Number				Recovery
	Pre-test	1	2	3			Pre-test	1	2	3	
301 ♂	12.06	-2.24	7.04	7.09		401 ♂	-7.59	-13.96	8.09	2.77	
303 ♂	-20.20	-6.70	-6.90	-4.20		403 ♂	-2.80	-19.50	16.12	0	
305 ♂	-13.63	0	0	0		405 ♂	-3.97	-22.38	14.16	5.06	
307 ♂	-9.76	0	-1.12	0		407 ♂	-17.73	-22.48	3.67	8.99	
						409 ♂	-12.79	-13.68	8.21	-2.34	5.87
Mean	-7.89	-2.21	-0.25	0.72		Mean	-8.97	-18.4	10.05	2.90	
302 ♀	3.87	2.31	6.31	1.05		402 ♀	-7.42	-13.07	11.61	-3.47	
304 ♀	-4.34	-3.78	0	3.23		404 ♀	-14.50	-19.28	12.64	2.23	
306 ♀	-15.30	7.29	6.44	2.41		406 ♀	-19.31	-24.22	14.08	0	
308 ♀	-26.88	-9.99	7.38	7.49		408 ♀	-3.34	-17.41	21.46	-2.99	
						410 ♀	-5.15	-22.66	16.98	-1.09	4.05
Mean	-10.66	-1.04	5.03	3.54		Mean	-9.94	-19.33	15.35	-1.33	

887000